MARCH 1982 • $1.25

Stereo Review

- SPECIAL TAPE ISSUE -

TAPING AND THE LAW • BARGAIN TAPES • TAPE'S FUTURE

EQUIPMENT TEST REPORTS

- B&W DM10 Speaker System
- Empire ICS/400 Phono Cartridge
- Micro Seiki MB-38 Turntable
- Phase Linear DRS 900 Power Amplifier

FIRST TEST

- Technics SV-P100 Digital Cassette Recorder

DISC SPECIALS

Neil Young • George Jones • Tim Hardin
John Entwistle • Ringo Starr • Frank Sinatra

PURCELL: Choral Works
MOZART: Four symphony discs
WAGNER: Philips' New Ring

SCHOENBERG: Erwartung
BRAHMS: Piano Trios
LISZT: Late Piano Music

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£8AON rtri. T60MSZ00
3Ar 9ST09S
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393x771.
Wide Fidelity Sound: tape that makes it possible.

major technological advances. (The kind you expect from Sony.) First, ultra-fine magnetic particles that are significantly smaller than any other conventional Type II tape particles. And a unique orientation process that aligns the particles so they are pointed in the same direction. (No mean feat when you consider there are some 500,000,000,000 magnetic particles in one millimeter of tape.) And third, a never-before-manufactured binder and process to assure a uniform, high density of particles.

If you want to get technical about it, here are the incredible specifications:

- Retentivity and Squareness higher than any other high-bias tape. Retentivity of 1800 Gauss, and that means greater Maximum Output Level and dynamic range.
- Squareness of 93%, an astounding figure, for better recording efficiency. (When you consider that no other tape of this type has ever reached even 90%, you'll realize just how phenomenal UCX-S's 93% is.)

Of course, the real test of UCX-S is not a question of numbers or percentages. It comes when you lean back, close your eyes and listen. You'll hear subtleties in the music you could only hear until now in the concert hall. You'll hear every instrument in the orchestra. You'll hear more than you've ever heard on a high-bias tape. You'll hear it on UCX-S, with Wide Fidelity Sound.
Hear booming kettle drums with virtually no distortion.

Hear quiet flute passages free of hiss.

Sony introduces UCX-S, the breakthrough.

Sony's UCX-S is a revolutionary new audio cassette tape. A high-bias tape with a wider dynamic range than any other tape of its type. So wide, it actually expands the sound you can hear. (With minimal distortion, hiss or print-through.) That's why we call it Wide Fidelity Sound.

With new UCX-S, you can record the very high notes—as well as the very low. Either way, you'll hear everything with a clarity you've never heard before on a high-bias tape. And you can also record at higher volume levels, so you can record and hear the very soft sounds you lost before in background noise.

How did Sony do it? With three
Sony is about to change your idea of what you can expect from an audio tape.
**OIL AND MUSIC MIX.** Texaco, Exxon, and other oil companies have been so generous in supporting classical music on PBS that wags sometimes refer to it as the Petroleum Broadcasting System. Now oil companies are subsidizing the release of records. The new digital recording of Tristan und Isolde issued at the end of 1981 was presented by London Records and Amoco Oil and had an Amoco logo on the cover. The state of Veracruz in Mexico is now investing some of its oil income in recordings of standard classics played by the Orquesta Sinfónica de Xalapa. The Moss Music Group has some of the tapes under consideration for release this year in the Vox Cum Laude line. Vinyl is, after all, a petroleum product.

**EARTH, WIND AND FIRE** has received CBS International's Crystal Globe Award for sales of more than 5 million records outside the United States. This is the eleventh such award the company has given. Previous winners are Santana, Simon and Garfunkel, Paul Simon, Ray Conniff, Andy Williams, Johnny Mathis, Bob Dylan, Neil Diamond, Billy Joel, and Julio Iglesias. We are betting on Roberto Carlos to be the next Crystal Globe recipient.

**ACOUSTIC RESEARCH'S "ROBOT LISTENER"** compensates for aberrations in room acoustics and in speakers by digitally analyzing and altering the output of an audio system so that the response is acoustically flat. According to AR, the new unit can notch out a single frequency with 1/50th-octave accuracy or apply a gentle slope, as correction may require. Adjustment is made while the stereo audio signal is in digital form, using a high-speed, sixteen-bit computer-on-a-chip that runs a program developed by AR. Other adjustments that can be programmed into the device include distortion reduction. Consumer and professional versions of the unit are planned.

**GERMAN TOP BANANA PLAYS THIRD PIANO.** If Prince Charles can be on Columbia Records, there's no reason why West German Chancellor Helmut Schmidt can't record for EMI. Just before Christmas Schmidt flew to London, and in EMI's Abbey Road studios he played the third piano part in a recording of Mozart's Concerto for Three Pianos in F Major. Christoph Eschenbach conducted the London Philharmonic from the keyboard of the first piano, and Justin Frantz was on second. Schmidt, who said he found it "thrilling," is donating his fee to charity. Angel Records hopes to release the album here this year.

**ENRICO MACIAS' North American tour this month is being sponsored by the manufacturers of Sasson jeans!** Like the pop singing star Macias, Sasson's founder Paul Guez was born in North Africa and emigrated to France. This is his first venture into promoting concerts. The tour will begin in New York with concerts at Madison Square Garden on March 6 and 7. Other cities included are Washington, D.C., Chicago, Los Angeles, Montreal, and Mexico City. Macias currently records for the French label Trema, which will release his next album early in 1982—and will then probably come out with a line of designer jeans.

**PAVAROTTI'S "O HOLY NIGHT" GOES GOLD.** After coining a great deal of money for London Records, the tenor Luciano Pavarotti has won a gold record from the Recording Industry Association of America, which has certified sales of more than 500,000 copies of his album of sacred music. Hot on his heels is rival tenor Placido Domingo whose CBS album "Perhaps Love" with John Denver is turning gold as we go to press.

**IN 1981, 7,717 NEW STEREO LISTINGS** were added to the Schwann catalogs, down from 8,062 in 1980. Of the 1981 new listings 2,873 were classical and 4,604 were non-classical LPs and tapes. Nudging out Beethoven and Mozart, Bach was the composer with most new records, and with forty-six (!) new listings Herbert von Karajan displaced Neville Marriner, 1980's classical artist with the most new recordings. The pop act with most new listings was the "rock" band the Residents with eight.
Five Reasons You Should Step Up to Our New Realistic® Digital Receiver

1. Digital Synthesized Tuning System
   Tuning takes just a touch of the feather-action bar to go up or down to the exact center of every AM or FM channel. A search feature tunes up or down automatically, stopping on the next station. No pointer, no dial, no tuning meter — there's no need for them! Instead, a precision quartz crystal, like the ones used in computers, locks in each station. The STA-2290 can't drift or be mistuned. You get pure music, not distortion.

2. Computer Control
   Up to 12 stations — six AM and six FM — can be programmed into the microprocessor-controlled memory for instant, pushbutton recall. Memorized frequencies are automatically protected for up to an hour in case of power loss. And with dual-gate MOSFET tuning and CMOS LSI frequency synthesis, you get superb FM stereo listening.

3. Clean and Powerful
   There's plenty of power to reproduce the most demanding music without distortion — even through two pairs of speakers! The 90-watt amplifier delivers a wide dynamic range so the depth and "live" quality of your music is recreated with stunning clarity. Protection circuitry prevents damage from overload or thermal problems.

4. Human Engineering
   All controls and indicators are designed for convenience and ease of operation. You get bright color-coded LED function indicators, LED signal strength and power meters. And what versatility! — you can add two tape decks with monitoring and dubbing capabilities, two turntables and an aux source.

5. Priced Right
   The computerized STA-2290 brings music to your ears for only $599.95. And it's designed, engineered and built by us — the company that also builds the world's best-selling computer line — TRS-80.®
The Equipment

NEW PRODUCTS
Roundup of the latest audio equipment and accessories

AUDIO NEWS
The Digital-audio Age Begins

AUDIO QUESTIONS AND ANSWERS
Digital Readiness, Long/Short Leads, MM/MC Damage

CAR STEREO
The Microcassettes Are Coming!

TAPE TALK
The Testing of Tape Recorders

TECHNICAL TALK
Consumer Reports' Speaker Ratings

EQUIPMENT TEST REPORTS
Laboratory test results on the Phase Linear DRS 900 music amplifier, Technics SV-P100 digital cassette recorder, B&W DM10 speaker system, Empire ICS/400 phono cartridge, and Mico-Seiki MB-38 turntable

TAPE FUTURES
Tape manufacturers are gearing up for another step forward

BARGAIN TAPES
You can't go wrong—if you stick with the name brands

TAPING AND THE LAW
The Betamax home-TV-recording case could have audio repercussions

The Music

BEST RECORDINGS OF THE MONTH
Purcell: Choral Works
Schoenberg: Erwartung, Six Songs
Brahms: Piano Trios

CLASSICAL MUSIC
Liszt: Late Piano Music
Bach/Skojakowski: The Famous Transcriptions
Mozart: Four Symphony Discs

POPULAR MUSIC
Martin Briley: "Fear of the Unknown"
John Entwistle: "Too Late the Hero"
Frank Sinatra: "She Shot Me Down"
Tim Hardin: "Memorial Album"

BULLETIN
WILLIAM LIVINGSTONE

SPEAKING OF MUSIC
WILLIAM ANDERSON

LETTERS TO THE EDITOR

GOING ON RECORD
JAMES GOODFRIEND

ADVERTISERS' INDEX

COVER: Design by Borys Patchowsky, photo by Bruce Pendleton. See page 62.
March issues of magazines are generally put together from mid-December to mid-January, which is why they often have a forward-looking "new year" aspect. This one certainly does, and it is a particular pleasure, after the past year's cries, alarms, and pervasive nay-saying, to contemplate an impressive little catalog of imminent audio delights that promise to lift us out of the doldrums before 1982 is over.

There is, first of all, the good news that the digital-audio age has "officially" begun following the Audio Engineering Society's drafting of standards for professional digital audio equipment (see "Audio News," page 16). Enormous technical (and many proprietary) complications had to be overcome, but their resolution means that most of the hard problems are now out of the way and the industry can move ahead with professional (recording) and consumer (playback) hardware without falling willfully into another War of Incompatibility.

There is good news on the videodisc front as well, for at the Las Vegas Consumer Electronics Show in January Pioneer Videodisc was proudly screening excerpts from three new musical programs planned for early release: Peter Grimes (Jon Vickers), Tales of Hoffmann (Placido Domingo), and an evening with Ray Charles. All three will receive the benefits of the new CX system of sound encoding, so if you route the audio through your hi-fi system you are in for a treat (you've certainly never heard the like on broadcast TV). This suggests that the rights-and-permissions logjam that has like on broadcast TV). This suggests that the rights-and-permissions logjam that has been holding up a lot of video software is at last beginning to loosen—and not a moment too soon.

Even greater sound delights are available from the Technics SV-P100 digital cassette recorder tested for this issue (page 40). Home digital recording has been possible previously using the "component" approach, but this is the first integrated all-in-one breadbox unit to reach our test lab; it will surely not be the last. The future promises significant advances on the analog recording front as well, some of them in the equipment area, but more in tape formulation and manufacture. As Ralph Hodges makes clear in his examination of "Tape Futures" (page 60), industry ingenuity in the field is not nearly exhausted, and tapes already on the drawing boards, so to speak, will easily surpass the performance of last year's best.

It is, of course, advances in metal-tape technology that have made it possible for the cunning little "microwcassette" format to move so rapidly into hi-fi precincts. (A quibble: I would be pleased if the industry would move closer to standard English usage in naming the format before this "micro" business goes too far. The better nomenclature is "micocassette" (as in "microwave," a small version of something larger), not "microwcassette" (we use "micro," as in "microscopic" to mean something very small indeed!)) Matsushita (see page 24) has only recently unveiled a whole line of these teeny-tiny units, the first examples of what seems destined to be the standard format for car stereo if not (quite yet) for the home. And once established on wheels, it will doubtless go on to take over in the "personal cassette" field as well, not so much for hardware as for software reasons: these little efforts are only one-tenth the size of standard cassettes.

And what of musical concerns for the future? Well, the Next Big Thing in pop music is still struggling to be born, but I learn from a CBS informant that the new Great Performances line of basic-repertoire works will easily surpass the performance of last year's best. Performances line of basic-repertoire works already on the drawing boards, so to speak, makes clear in his examination of "Tape Futures" (page 60), industry ingenuity in the field is not nearly exhausted, and tapes already on the drawing boards, so to speak, will easily surpass the performance of last year's best. What the baby-boomers want the baby-boomers will get.
OUR AMP DOESN'T PUT THE SQUEEZE ON YOUR MUSIC.

Most amplifiers just can't handle the highs and lows of today's sound. They "clip" it, distorting the peaks and valleys and leaving you without the full musical experience.

But that's not the case at Phase Linear. Our DRS 900 and DRS 400 amplifiers and our DRS 250 integrated amplifier have all the power and headroom necessary to deliver the full dynamic range.

Encoded CX and dbx records, digital and direct discs, ½ speed mastered and future PCM discs. No matter the source, our amplifiers are designed to deliver sound exactly as the sound engineer recorded it. A full musical experience. Which is something we feel we do better than anyone else.

But don't listen to us, listen to our amps. The DRS 900, with up to 900 watts into 8 ohms; the DRS 400, with up to 400 watts into 8 ohms; and the DRS 250, with up to 400 watts into 8 ohms.

Take your favorite record to your nearest Phase Linear dealer and compare. Listen to the music come out of the flatlands of sound, up to Phase Linear.

Today's source materials require an amplifier with adequate power and headroom.

CIRCLE NO. 24 ON READER SERVICE CARD
Camelot and Politics

- As a long-time reader and subscriber to Stereo Review, I have always enjoyed reading the Editor's monthly columns of informative chatter. December's and January's efforts, however, merit a letter. I am already enjoying the Christmas album recommendations, having had good luck with a mail-order service from Minneapolis. Mr. Anderson's January exploration of "Carmendations, having had good luck with a

- My January Stereo Review fresh in hand and William Anderson's perceptive editorial on "Refurbishing Camelot" fresh in mind: Bravo! Well said. We do need mythic content in life—to raise us, to in

- Much of January's editorial, "Refurbishing Camelot," is devoted to a highly charged meditation on the myths of politics, and to this I wish to take exception. The myths of politics have been, by and

LETTERS TO THE EDITOR

"Multiple-mike Mono"

- I am compelled to respond to Maron Horonzak's letter in the January issue. The stock "attack" phrases Mr. Horonzak uses really have no application here. Of course, I know that he is wrong, but I know this only from my twenty years of experience making recordings of all types—and learning my craft from experiments both successful and unsuccessful. If a producer turns out a record so closely miked that the sound of each instrument of the orchestra is contained only in the output of its own private mike, then that would be "multiple-mike mono." I guess Mr. Horonzak didn't read the part of my article concerned with the "large blended picture"—or the part about "listening with one's eyes."

- Debate over the relative merits of various stereo microphone techniques will probably go on forever. The ability to make A-B comparisons between simultaneous stereo recordings using different miking setups is a luxury record producers are seldom if ever afforded. When such comparisons are made, they may not indicate any hard and fast rules; they may even suggest that more than one miking technique can produce good results (see Carl Coeën's tests reported in the January 1972 Journal of the Audio Engineering Society).

- Some "purists" consider their approach superior on theoretical as well as empirical grounds, maintaining that use of more than a single mike per channel invariably distorts the signal, causing fuzziness of the stereo image and poor localization due to the same sound's arriving at different times and the resulting displacement of the natural relation between an impulse and its reverberation. Even ambient information mixed into the primary stereo signal from distant mikes should be avoided, they say, because ambiance may be of largely random phase, which is just another way of saying that the effect on the primary signal is unpredictable.

- Whether or not these points are entirely valid, it is good to be aware that such forms of distortion do exist, however subtle their effect may be in a particular recording session. But purists also make a mistake if they overlook the phase anomalies that may occur naturally at any given point due to room nodes; most recordings are made in less than ideal acoustic settings, as Andrew Kazdin knows very well. Also, purists have perhaps put too much emphasis on localization, as though the quality of a music recording could be characterized solely in terms of this one feature.

- David Ranada replies: I agree that some "purists" go too far in their theoretical justifications. To more specific: Nancy Reagan's chi-

The Editor replies: It is a compliment to its power that the word "myth" has attracted consciousness or unconsciousness) to such a mythic identification. In American mythology, the health of the nation proceeds from the nation, and the Reagan administration has been anxious to affirm this principle in its own rhetoric.

James di Loreto
New Haven, Conn.

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James di Loreto
New Haven, Conn.

- Multi
No matter how much you spend on your record playing system, it can't be better than its first component: the phono cartridge. Because, unless the cartridge tracks the groove faultlessly, and precisely reproduces all the recorded sound, no amount of electronic wizardry can make up for its faults. Which is why you'd do well to start your system with an Audio-Technica Vector-Aligned™ stereo phono cartridge. Constructed with the same unique geometry as the cutting head which engravesthe stereo groove, A-T cartridges are outstanding for wide range, low distortion, excellent tracking, and superb stereo separation.

There is an Audio-Technica model to match every tone arm and every budget. And each meets our high standards of uniformity and quality...unsurpassed in the industry. Every great stereo system can use a little Audio-Technica at the start. Insist on nothing less. At leading high fidelity stores or write for our catalog today.

AUDIO-TECHNICA U.S., INC. 1221 Commerce Drive Stow, Ohio 44224.

Clearly, the Audio-Technica AT155LC excels in just about every area of cartridge performance, and it came as no surprise to find that it was as silky smooth and "forgettable" when playing music as its measurements would suggest. We would have difficulty describing the "sound" of the cartridge, since it contributes so little of itself to the final sonic quality. Good records often sound superb when played with the

Great sound... right from the start!

Write today for a copy of the complete test report and descriptive literature.

Model AT155LC $225
Other models from $40 to $275.
tifications of their favorite mike technique. Advocates of the Blumlein system in particular often give overemphasis to localization. In a good hall, such as Boston's Symphony Hall, precise subjective localization of instruments is difficult with one's eyes closed even sitting close to the stage. Also, purists who adore phase coherence above all else seem to forget that a multi-miked, pan-potted, "multiple-mono" recording is naturally the most phase-coherent type of program imaginable, the only differences between channels being in intensity. (The Blumlein coincident-microphone system actually gives a 180-degree phase shift to any sound hitting the microphones from the rear.) Personally, I recommend no particular "ideal" mike technique. I only require that the end result sound plausibly realistic—that the "fidelity" be present in hi-fi.

List Price

- I do believe that in inflationary times we must all learn to accept certain inconveniences and uncertainties, but offering a product to the public while refusing to put a price tag on it is ludicrous. The "no list price" policy of CBS Records reflects a total lack of concern for those of us who must buy records for institutions. How in the world can anyone make purchases within a set budget under such a system? If CBS is not itself taking unfair advantage of contrived public ignorance, it is certainly creating opportunities for retailers to do so in their pricing of CBS products. Perhaps CBS will make the purchase of their products so inconvenient that the public will simply buy records from other labels—and intelligent talent will become increasingly reluctant to sign with CBS.

Mark Cameron Bolles
Elkhart, Ind.

The Editor replies: Publication of list prices is no guarantee that retailers will refrain their rapacity. A West Coast producer of audiophile records told me that his records were being offered (if not sold!) at $2 over list price by a New York retailer.

Billy Burnette

- Joel Vance's January review of Billy Burnette's "Gimme You" refers to it as his second album. It is actually his third, the first two being "Billy Burnette" (Polydor PD-1-6187) and "Between Friends" (Polydor PD-1-6242).

Allen Pasternak
Houston, Tex.

String Quartets

- Thank you for the compliment to Canada's foremost string quartet on page 122 of the December issue, where Richard Freed refers to their "magical recording of [Mendelssohn's] Opp. 12 and 13" string quartets. But, please, it's the Orford Quartet, not the Oxford! So far as I know, none of the members of the Orford Quartet has ever been to Oxford; the group's name comes from the summer music school at Mt. Orford in Quebec where they first played together. We were also tickled to see the "Best of the Month" review of the Bartók Quartet's recording of the Brahms F Minor Quintet, since the Bartók will be performing a regular concert in my living room on March 30. We have an extensive series of chamber-music concerts here, some (such as that one) by very eminent performers. The room seats about sixty nominally, though we have managed as many as seventy-five on some occasions. I am just an ordinary professor at the University of Waterloo, and the concerts are funded by ticket sales and donations from our enthusiastic subscribers. I've heard of only one other concert series in a private home (in Indianapolis, I understand). In terms of acoustical presence, there is really nothing quite like it!

Jan Narveson
President, K-W Chamber Music Society
Waterloo, Ontario

Review of the Year

- The best record review that I have ever read in the past fifty years is the first paragraph of Noel Coppage's review of Robin Trower's "B.L.T." on page 118 of the September 1981 issue. It's a classic and deserves a gold medal—or something!

John Wasson Sr.
Pen Argyl, Pa.
Creating great music has never been simple.

Now recreating it is.

Degree in engineering? Swiss bank account? All you need to get startling cassette deck performance is Aiwa's startling cassette deck... the 3-head AD-3500. Its performance and convenience will bedazzle your senses. For the ears, there's Dolby C. So you hear the music, not the tape. For the eyes, 24 section, tri-color bar meters. While for the touch, Aiwa adds all-electronic soft touch controls. For easy maintenance, try Aiwa's A D.M.S. It automatically demagnetizes the heads so you don't have to. The AD-3500 even replays music over again, automatically. Aiwa's AD-3500. It does more than reproduce music. It recreates it. Simply.

Aiwa introduces 3-head and Dolby C performance with auto-demagnetizing and auto-replay convenience.

CIRCLE NO. 2 ON READER SERVICE CARD

*Dolby is a trademark of Dolby Laboratories. Aiwa America Inc. 35 Oxford Drive, Moonachie, New Jersey 07074. In Canada, Shiro (Canada) Ltd.
Teac claims that recordists can realize a "best home hi-fi system." Special tuner circuitry originally developed for Proton's Model 100 portable stereo FM radio is said to provide superior capture ratio and FM sensitivity. The FM-tuner specifications include an HF usable mono sensitivity of 1 microvolt, a capture ratio of 1 dB, frequency response from 30 to 15,000 Hz ± 0.5 dB, and stereo signal-to-noise ratio of 75 dB.

"The Radio" includes a two-way, biamplified speaker system. A 20-watt amplifier drives the woofer and a 5-watt amplifier drives the tweeter; crossover is at 2,500 Hz. The amplifier section's total harmonic distortion is 0.03 percent. Built-in equalization boosts bass output for a flat response down to 60 Hz. For stereo operation, it is used with a separate powered speaker system called "The Speaker" (right in photo).

The unit's stereo line-level inputs and outputs have a frequency response of 20 to 20,000 Hz ± 0.5 dB and a signal-to-noise ratio of 90 dB. Front-panel controls include the tuning knob, AM/FM/tape selector switch, volume control, and bass and treble tone controls. Rear-panel facilities include a stereo/mono switch, tape/aux input and output, and outputs for the powered speakers. Prices: the Radio, $280; the Speaker, $150. Proton Corp., Dept. SR, Pacific Tower Plaza, 1431 Ocean Avenue, Santa Monica, Calif. 90401.

Onkyo's P-3090 preamplifier has an uncluttered front panel because most of the controls are hidden behind a hinged door. Only the power switch, input-selector pushbuttons, and volume control are ordinarily visible. The variable-gain phono preamp can be switched to accept either moving-magnet or moving-coil cartridges and has user-adjustable input resistance and capacitance. The passive bass and treble tone controls have a range of ± 6 dB at 70 and 20,000 Hz, respectively. A high-cut filter slopes at 6 dB per octave above 7,000 Hz, and an infrasonic filter drops at 6 dB per octave below 15 Hz. A separate volume control adjusts the level at the headphone jack. Frequency response through the high-level inputs is given as 0.8 to 170,000 Hz ± 3 dB. Moving-coil phono signal-to-noise ratio is 76 dB; moving-magnet S/N is 82 dB. Phono-overload level through the moving-magnet input is 380 millivolts at 1,000 Hz with 0.05 percent total harmonic distortion. Price: $1,249.95.

Nakamichi's two-speed TX-1000 computing turntable reduces wow caused by off-center pressings and/or oversize center holes in discs. The unit has two platters, a massive main platter driven by a brushless, coreless, slotless, direct-drive motor and a lighter "Center Search" platter that rides on the main platter and can shift horizon-
Introducing TDK AD-X. The normal bias tape with Super Avilyn technology.

New TDK AD-X is the first normal bias audio cassette to use TDK's Avilyn magnetic particle—based on the renowned Super Avilyn formulation that has kept TDK the leader in audio and videotape technology.

The Avilyn advantage offered in AD-X is demonstrably clear. You now can record and play back—in the normal bias/EQ position with complete compatibility for any cassette deck over a wider dynamic range and with far less distortion. Even at higher recording levels, the increased headroom in new AD-X can easily handle strong signal input without over-saturation.

When you hear the brilliant playback resulting from the higher MOL and lower bias noise you won’t believe that your deck can “improve” so much.

The new AD-X has truly versatile applications. Its higher sensitivity makes it ideal for all-round home entertainment use and also suitable for any cassette player.

To ensure years of reliable use, AD-X is housed in TDK's Laboratory Standard Mechanism, and protected by TDK's lifetime warranty. With its distinctive packaging, you won't miss it.

So for high quality recordings in the normal bias/EQ position, snap on the new TDK AD-X. You'll discover that the Avilyn advantage means superior overall performance for you.
In a world where sound reaches new levels every day, ADC delivers the ultimate high.

The ultimate high is total control. And an ADC Sound Shaper Frequency Equalizer lets you control your sound and custom-tailor your music with the mastery of a pro. And no better way demonstrates the benefits of an ADC Sound Shaper than taping. Even without a studio environment, you can recreate your personal recordings by changing the frequency response curve of the source material—making the sound more like the original and more agreeable to your ears.

Our complete ADC Sound Shaper IC line* has an equalizer that is right for you and your system. The SS-110 ten-band full octave equalizer, a step up from our SS-1, features LED-lit slide controls and one-way tape dubbing. If you desire even more control, our twelve-band SS-II and top-of-the-line SS-III include two-way tape dubbing and sub-sonic filters. Our SS-III Paragraphic™ with 24 ancillary switches that enable you to control 36 bands per channel combines the ease and control of a graphic equalizer with the precision and versatility of a parametric. All at a price you can afford.

All of our equalizers feature LED-lit slide controls allowing for visual plotting of the equalization curve. And all ADC Sound Shapers embody the outstanding ADC technology that has made us the leaders in the industry.

To really complete your custom-tailored control-ability, our ADC Real Time Spectrum Analyzer is a must. Equipped with its own pink noise generator and calibrated microphone, the SA-1 provides a visual presentation of the changing spectrum through 132 LED displays. So you can actually see proof of the equalized sound you’ve achieved.

With an ADC Sound Shaper and an ADC Real Time Spectrum Analyzer, you can attain a new level of control. And ultimately, isn’t that the musical high you’ve always wanted?

*Sound Shaper is a registered trademark of Audio Dynamics Corporation. *IC indicates new Sound Shaper series.

BSR (Canada) Ltd., Rexdale Ontario
Write for a free 24-page booklet “Shaping Sound At Home: A Guide to Equalization” (a $2.50 value).

CIRCLE NO. 6 ON READER SERVICE CARD

ADC
A BSR COMPANY

Sound thinking has moved us even further ahead.

BSR (USA) Ltd., Blauvelt, N.Y. 10913, BSR (Canada) Ltd., Rexdale Ontario

CIRCLE NO. 6 ON READER SERVICE CARD
New Products
latest audio equipment and accessories

tally along two perpendicular axes. The disc to be played is placed on the Center Search platter (which is made from metallized glass to provide a flat, smooth, electrically conductive surface that is said to drain off static charge). When the “Absolute Center Search System” is activated, a special sensor arm traces the disc’s lead-out groove. Eccentricity is measured by the sensor arm, digitized, and fed to a microcomputer, which determines the required correction and drives two servomotors in the main platter that relocate the Center Search platter until the eccentricity is minimized.
The TX-1000 turntable will take two tone arms (neither supplied) and has a physically separate power supply. It sits on four “Hydro-Suspension” air-piston vibration isolators. A pitch control varies turntable speed by ±9.9 per cent in 0.1 per cent increments. Wow-and-flutter is 0.003 per cent (wrms), signal-to-noise ratio is given as greater than 70 dB. Dimensions are 26½ x 6½ x 20½ inches; weight is 81½ pounds. Price: $7,000.

Protocol Industries offers lightweight, compact nylon “music wallets” to protect, store, and organize tape cassettes for on-the-go use. Available in three-, six-, and twelve-cassette versions, the carriers can be strapped to a belt, fastened to an automobile sun visor (passenger side, please), or attached directly to a portable cassette player.

Fastening is by means of a Velcro strip, so there are no mechanical snaps or hooks to fuss with. Eleven different colors are available. Prices: three-cassette wallet, $6.95; six-cassette, $9.95; twelve-cassette, $13.95.

Sony’s MDR-33 consists of two MDR drivers, such as are used in the company’s conventional lightweight headphones, designed to “hang comfortably from each ear.” Advantages of this arrangement include no head band to add bulk or to interfere with hair styles. The MDR-33 is also said to be suited for listeners to portable stereo cassette players who are also involved with active sports. Frequency response is rated from 40 to 18,000 Hz. Each earphone weighs about 12 grams, and the total system weighs less than one ounce without the connecting cord. It comes with a stereo mini phone plug only. Price: $34.95.

RealTime Records’ four-page, full-color catalog shows and describes twenty-five audiophile albums: twelve direct-to-disc and thirteen digitally mastered recordings. Among these are eight jazz titles, a digital jazz sampler, ten classical albums, two “sonic spectaculars,” four musical enter-
New Products
latest audio equipment and accessories

**Hitachi's Low-price Digital-synthesis AM/FM Receiver**

- Hitachi's HTA-3000 receiver is rated at 30 watts per channel with no more than 0.05 per cent total harmonic distortion (THD). It has a quartz-locked digital-synthesis tuner section with programmable presets for six AM and six FM stations in addition to a scanning feature. The tuner section has a usable mono sensitivity of 1.9 microvolts, a stereo signal-to-noise ratio of 69 dB, and THD of 0.25 per cent in stereo. Other features include connections and switching for two tape decks and two pairs of speakers, a loudness switch, bass and treble controls, a headphone output, and an AM loop antenna. Price: $249.95.

Circle 128 on reader service card

**Custom Woodwork's Audio Cabinetry**

- The Woodmore Lowboy Cabinet by Custom Woodwork & Design is available in three finishes: natural oak (Model KD600, shown, with natural-oil finish), dark oak (KD700, with dark walnut-oil finish), and natural walnut (KD800, with natural-oil finish). The insides of the two compartments measure 27 x 22 x 18 inches. Each compartment holds several adjustable shelves. Doors are of tempered glass, and hardware and casters are chrome plated. Available accessories include a videotape drawer that can hold up to twenty-four videocassettes, a cassette drawer to hold up to sixty audio cassettes, a slide-out shelf, and stacking rails for stacking cabinets. Overall dimensions are 27 x 11 x 12 inches. Price: $1,100 per pair.

Circle 129 on reader service card

**KEF Speaker**

- KEF's Model 204 floor-standing loudspeaker is intended for use in average-size living rooms with amplifiers having a minimum output of 15 watts and a maximum of 100 watts. Sensitivity is 86 dB sound-pressure level at 1 meter with a 1-watt input. The system will give peak sound levels of up to 106 dB in typical rooms. A two-way system with Bextrene-diaphragm drivers, the Model 204 has an auxiliary passive radiator to extend the low-frequency range down to 47 Hz; the bass loading makes use of combined electromechanical circuits to maintain a low-distortion output down to 27 Hz. Upper frequencies are handled by a 1-inch dome radiator.

Specifications include a frequency response from 47 to 20,000 Hz ±2.5 dB (−10 dB at 29 and 30,000 Hz). Second-harmonic distortion is less than 0.1 per cent from 60 to 20,000 Hz, and third-harmonic distortion is less than 1 per cent from 150 to 20,000 Hz. Nominal system impedance is 8 ohms. Finish is genuine teak or walnut veneer with chrome-plated hardware and casters. Dimensions are 27½ x 11 x 12½ inches. Price: $1,100 per pair.
In our zeal to build superb tape recording equipment in the extreme, we at Teac are sometimes driven to steal. From ourselves.

The extraordinary X-1000R illustrates this very well. In it, we have incorporated professional features originally designed for our TASCAM recording studio equipment.

These include a linear LFD counter which measures tape in hours, minutes, and seconds. A Search To Cue (STC) and Search To Zero (STZ) capability. In addition, there’s Auto Reverse in both directions, in play or record.

The X-1000R, as is current professional practice, employs DBX* noise reduction. An exclusive in home reel-to-reel. And also, as in professional recording equipment, full-tension servos guarantee high stability and accuracy. And low wow and flutter specs of just .03% @ 7½ IPS.

All of which add up to an impressive collection of features, we think you’ll agree. And if we happened to borrow a lot of them from our professional designs, well that shouldn’t bother you one bit.

TEAC® MADE IN JAPAN BY FANATICS.
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Full-range performance is possible from loudspeakers that can be used as bookends on an open shelf.

Revue du Son, in a feature review, "said "La 'petite' Allison:Six est une grande enceinte [loudspeaker]."” "No 32 (Nov. 1979)"

For literature and information call (800) 225-4791 [in MA (617) 237-2670] or send coupon

The Allison:Six costs $160 in walnut vinyl, $172 in black or white lacquer.

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THE DIGITAL-AUDIO AGE BEGINS

I WITNESSED the birth. In the Barron Suite of New York's Waldorf Astoria Hotel between 4:30 and 5:00 p.m. on November 2, 1981, the first professional digital-audio standard was drafted by the Technical Committee on Digital Audio of the Audio Engineering Society. It was proposed that "the preferred sampling frequencies for professional digital audio equipment which requires a 20 kHz audio bandwidth shall be 48 kHz for professional [program] interchange and compatibility with television and motion picture systems, and 44.1 kHz for applications directly relating to certain consumer digital audio systems."

This draft recommendation for a standard marks "the real start of the digital audio age," as Dr. Toshi Doi, general manager of Sony's digital-audio division, put it. With widespread international acceptance of this standard, design of compatible professional digital-audio systems (recorders, editors, mixers, equalizers, and other signal-processing devices) can begin in earnest. A standard for sampling rates (the rate at which a digital audio system measures an analog voltage and turns that voltage into a number) simplifies circuit design. In fact, some devices (a digital equalizer, for example) cannot be built without knowing what the sampling rate is. For the home consumer, standards for digital audio will eventually mean increased component capability and versatility (in the form of integrated circuits incorporating the standards in their design) and lower digital-audio costs.

The road to this standard was rocky, and at the beginning it seemed to have hit a dead end. There was some question three years ago, when the AES started investigating standards for digital audio, whether such cooperative activity would not violate U.S. antitrust laws. So discussions continued overseas. But in November there were several digital audio recorders already in the marketplace, and it was felt that there were no remaining legal barriers to the establishment of digital-audio standards.

The final minutes of the meeting were filled with OPEC-like negotiations ("arguments") as various companies fought for their own technical positions. A "win" would have saved considerable amounts of money already spent on equipment and engineers. What most impressed me, however, was that the level of "discussion" had evolved far from the typical audiophile concerns of frequency response, distortion, noise, and the like. While the average audiophile may not have decided whether digital encoding is beneficial, at the meeting it was taken for granted: the discussions were centered mainly with compatibility with non-audio media and with the coming home digital systems.

The compatibility issue has a complex technical history, much of it sounding like an episode out of James Burke's PBS TV series "Connections," for the choice of these two sampling rates was greatly influenced by decisions made quite some time ago in only remotely related areas.

For example, the requirements leading to the 44.1 kHz standard were that the sampling rate be (1) at least twice the desired audio bandwidth and (2) related mathematically simply to the frame rate for motion pictures (twenty-four frames per second) and the field rates for television (50 Hz for PAL and SECAM used overseas, 59.94 Hz for the NTSC system used in the U.S. and Japan). The first requirement is relatively easy to meet, but the second is not, primarily because of that 59.94-Hz rate. Were it not for the NTSC system of color-TV broadcasting, a sampling-rate standard would probably have been possible several years ago.

Why is the NTSC field rate 59.94 Hz and not the easily synchronized 60 Hz so commonly quoted as the field rate in oversimplified explanations of television? The answer here also involves compatibility, this time with black-and-white television. Back in the 1950s, when the NTSC system was developed, it was necessary for any color broadcasting system to be compatible with the thousands of b/w televisions already in American homes. The NTSC system broadcasts a color subcarrier along with the b/w signal, much as stereo FM is broadcast with a stereo subcarrier. In color TVs, the color signals are derived by matrixing techniques (just as stereo is derived from an FM signal)
Here’s how we kiss the hiss goodbye.

BASF Chrome.
The world’s quietest tape.

With BASF Chrome, you hear only what you want to hear—because we “kissed the hiss goodbye.”

In fact, among all high bias tapes on the market today, only PRO II combines the world’s lowest background noise with outstanding sensitivity in the critical high frequency range for superior dynamic range (signal-to-noise ratio).

PRO II is unlike any other tape because it’s made like no other tape. While ordinary high bias tapes are made from modified particles of ferric oxide, only PRO II is made of pure chromium dioxide. These perfectly shaped and uniformly sized particles provide a magnetic medium that’s truly superior—so superior that PRO II was chosen by Mobile Fidelity Sound Lab for their Original Master Recording™ High Fidelity Cassettes—the finest prerecorded cassettes in the world.

And like all BASF tapes, PRO II comes encased in our new ultra-precision cassette shell that provides perfect alignment, smooth, even tape movement, and consistent high fidelity reproduction.

So when you want to hear all of the music and none of the tape, turn on to BASF Chrome. It’s the one tape that kissed the hiss goodbye.

PRO II—a tape so superior, a cassette so reliable, that it was the one chosen by Mobile Fidelity Sound Lab for their Original Master Recording™ High Fidelity Cassettes.

For the best recordings you’ll ever make.
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A small investment can upgrade the sound of your entire hi-fi system.

If you're one of the millions who have bought a Shure V15 Type III, M97 Series, M95 Series, or M75 Series phono cartridge, we have a way of making it perform better than it ever has before. It's the Shure Hyperelliptical (HE) upgrade stylus (needle) series. We've taken all the high trackability/low distortion benefits of the HE stylus tip (first introduced on the famous V15 Type IV), and put them into styli that will match perfectly with your cartridge, for an audible improvement in your system's sound at an absolutely minimal cost to you!

Upgrading your phono cartridge with an HE replacement stylus will give a large return on a very small investment. You already own a phono cartridge with proven performance; now you can get even better performance from that same cartridge. Ask your dealer for the Shure HE replacement stylus that's right for you, and take advantage of the ROI factor.

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Manufac trer of high fidelity components, microphones, speakers, sound systems and related circuitry.

CIRCLE NO. 29 ON READER SERVICE CARD
Radio signals move fast. They travel at 186,000 miles per second. The same as the speed of light.

Just like light, radio signals travel only in straight lines. But unlike light, they are reflected and distorted by buildings, hills and even passing airplanes.

So, your FM tuner is engulfed in a veritable echo chamber of reflected and distorted radio signals.

The fact is, your FM tuner can't tell a distorted signal from the real thing. Nor can it stop a distorted reflection from mixing in with the original.

That's why many of the FM stations that you try to tune in are hissy and the sound appears to break up.

**FREE HELP**

You can solve part of the problem for free. Check the piece of wire, worth just about 79 cents, called a dipole antenna that came with the receiver. Is it simply junked behind your receiver or is it nicely spread out like a big "T" on the wall.

If your dipole wasn't already stretched out you'll immediately notice a significant improvement in both the background noise level and distortion in your music. In fact, the improvement on many stations will be enough to make you very glad you read this ad.

So much for the free help. Your dipole is directional. It is most sensitive to FM broadcasts that are coming at it directly through the wall it's mounted on.

If you are receiving some stations now that you only hear with so so quality, you are probably picking up the distorted signals that are being reflected at you from distant buildings rather than the direct beam of the radio station.

It's a pretty good bet that you can dramatically improve the bad stations by repositioning your antenna at a different angle so that it is aimed at the station you want to receive. You'll improve the sound quality go up and distortion go down.

The Beam Box virtually snuffs out reflections that cause distortion and improves stereo separation and signal to noise ratio. So, you'll get cleaner sound.

**A TUNER IN FRONT OF YOUR TUNER**

FM radio waves vary in size from 9 feet to 11.1 feet in length, depending on their frequency. Other antennas have to make a compromise as to their sensitivity to the different sized frequencies.

Once you tune in a station on your tuner, you can dramatically improve the sound by switching in the Beam Box's 4 gang tuning capacitor. It's just like the one you'll find in most FM tuners. It matches the antenna to the exact frequency of the station you select.

The Beam Box becomes 16 times as responsive to the signal at the frequency it's tuned to, than to any other signals.

The Beam Box is covered by a 2 year limited factory warranty by B.I.C. It is 12-7/8" wide by 14" deep and 3-1/2" tall. It is housed in a beautiful wood-grain cabinet and comes complete with connecting wire to your tuner. No external power is required.

**TRY THE BEAM BOX RISK FREE**

Connect this antenna component to your tuner. Tune in several FM stereo stations. You'll notice the improvement in signal to noise, clarity and stereo channel separation on each station.

If for any reason you aren't 100% satisfied, simply return the Beam Box within 30 days in its original box to DAK for a courteous refund.

To order the patented Beam Box FM-8 risk free with your credit card, call the DAK toll free hotline, or send your check not for the regular $59 price, but for only $39 plus $3.50 for postage and handling to DAK. Order No. 9301.(California residents add 6% tax)

With the Beam Box, you'll get more FM stations, and you'll get them better.
Audio Q. and A.

By Larry Klein

Technical Director Klein
avoiding a low-hanging Pioneer cassette-deck ad in a Tokyo subway car.

Digital Readiness

An audio enthusiast selecting a new preamp, integrated amplifier, or receiver today must reckon with the probability that during the useful life of the product consumer digital-audio playback sources will become widely available. It seems to me that current equipment has not fully anticipated digital sources in that the well-equipped audiophile today may already have two tape decks, a record player, a tuner, and a TV audio source plugged into his preamp. As the "entertainment center" concept emerges, shouldn't manufacturers be planning ahead by providing several additional inputs? Even more to the point, what will the output-signal characteristics of digital disc or tape players be? Will they be similar to their analog counterparts? Will they operate efficiently into existing high-quality preamp inputs?

MARTY BARRACK
Burke, Va.

A reader Barrack's fears are unjustified. Most well-designed top-of-the-line preamps already have enough inputs to cope with digital contingencies, and even if they didn't you can be sure that small addition multi-input switching accessories would become available as soon as a demand for them developed.

In regard to the output-signal level of home digital tape or disc players, there is no technical reason why it should not be completely compatible with the input demands of existing equipment. It would be absurd for any manufacturer to go outside the 0.1 to 1-volt range that has been standard for the auxiliary (tape, radio, tuner, TV) input sensitivity of every amplifier made in the past twenty years or so.

However, the dynamic range of digital equipment is an area of potential incompatibility that should concern anyone with a low-power (say, 40 watts or less) amplifier or receiver. During a live classical performance in a concert hall the dynamic range available is perhaps 90 dB. This is determined by the (perhaps) 30 dB of background noise during the quietest musical passages and the 120-dB levels achieved during the loudest ones. A similar 90-dB figure is claimed as the dynamic range (and signal-to-noise ratio and separation) of the 4¾-inch compact digital audio disc and player. Depending on the acoustic conditions in your immediate environment, the kind of music you like to listen to, and how loud you like to hear it, you may find that your amplifier (and speakers) are unable to cope with the power demands of the music. The super-fidelity potential of digital technology can be compromised by distortion from overdriven low-power amplifiers and speakers. The solution, of course, is amplifiers that can deliver large amounts of power and speakers that can take it.

Long/Short Leads

I'm thinking of moving my power amplifier over next to my speakers to keep the speaker leads as short as possible and running long (about 40 feet) shielded leads from the preamp to the power amp. What are the technical considerations?

KERRY L. SMITH
Plano, Tex.

Although there are manufacturers out there in hi-fi land with products intended to be interconnected as you describe, I've never found their technical justifications to be very convincing. It seems to me that 40 feet of shielded wire is likely to cause more problems (r.f. pickup, hum, and loss of highs) than 40 feet of speaker wire. However...

In general, capacitance in speaker leads plays a much more significant negative role than small inductance, yet the resistance (and inductance) is what most "super-cable" manufacturers choose to focus on. Many amplifiers react badly to speaker-lead capacitances of 0.01 microfarad or so—which happens to be the value presented by some recent "low-inductance" braided cables. The amplifiers' "bad reactions" range from instant output-transistor destruction to instability—otherwise known as a tendency to oscillate. The instability is audible in some cases and apparently heard by some audiophiles as an "improved" high end.

Let's look, then, at the purported benefits of the reduced resistance of those special cables (Continued on page 22)
Pocket Concert Plus

NOW WITH FM STEREO

JUST $69.50

DAK was in trouble. Orders were coming from everywhere. Our Pocket Concert Cassette Player was selling like crazy. We were guaranteed 20,000 players. We finally got 24,000. But it wasn't enough. We stopped advertising but the orders still kept coming.

We were in a jam. We offered more cash to our supplier. We researched other suppliers. But, we couldn't find a new Pocket Concert good enough to satisfy our customers, or for that matter ourselves. After all, we had advertised a product to be equal or superior to the Sony Walkman. And, we had lots of customers who expected us to deliver.

Well, not only did we finally find a great replacement, but we've even got one with FM. Now you can have the new 'Pocket Concert Plus' complete with FM stereo module for just $50.00 more than our original cassette player. It's the newest model. It's smaller, lighter and the sound's fabulous.

EXTRA HOME BONUS — We've made a special matching cable system so you can plug the Pocket Concert Plus into any line (aux) inputs in your home stereo. Now you can make copies of cassettes by playing them on the Pocket Concert Plus and recording on your main cassette deck, or just listen to your favorite cassettes through your home stereo. The sound is great. Just $4.00 ($1.00 P&H) Order no 9200.

It's uncanny. You can sit, walk, ski or mow the lawn. And think of it, you can do it all in an environment controlled totally by YOU.

You can be doing the most mundane task, but your mind may be soaring thousands of miles away. It's no fluke that Sony has sold hundreds of thousands of their Walkman Cassette Players. The power of music has been used for centuries to rouse the troops and relax the kings. But, only now with the new 1 1/2 oz. Samarium Cobalt headphones are you able to get such a kaleidoscope of sound that the outside world seems to literally disappear.

And, the effect is so total that there are even laws to stop you from wearing these remarkable players while you drive a car or ride a bike.

WHAT SOUND

And what sound you'll hear. It's easily equal to a several thousand dollar home stereo system. Yet, the new Pocket Concert Plus with both cassette and FM stereo is so small you'll hardly know that you're wearing it.

If you were on a diet yesterday, you probably lost more weight than the trifling 1 1/2 oz. of the Pocket Concert Plus.

The Pocket Concert Plus goes where you go with a protective leatherette case that easily hangs on your belt or rides comfortably in your pocket. It also comes with an adjustable shoulder strap. So, whether you're into long walks, sitting in airplanes or washing your car, you'll enjoy the unbelievable rich stereo sound of the Pocket Concert Plus.

ENGINEERED FOR STRESS

Most fine stereo equipment is designed to literally disappear. But for walking and jogging your music will be smooth and rock stable.

The Pocket Concert Plus is specifically designed for rough treatment. Many other machines are really redesigned dictation recorders. The Pocket Concert Plus is designed to provide superb stereo music while you're on the move.

MUSIC AT YOUR COMMAND

You won't be 'roughing it' when you leave home. You can play all your cassettes since there is an equalization switch for Metal/Chrome or standard.

The sound is crisp and clean with a wide clean frequency response. The entire system is operated by 3AA batteries (not included).

There are convenient lock-in forward and rewind buttons, plus cue and review. If you want to listen to a song just press the review button without ever leaving play.

You can listen to the outside world by pushing the Mute—FM/Tape switch without taking off the feather-light stereophones. Dual volume controls, auto-stop and a LED operation indicator round out the convenience features.

PLUS FM STEREO

Just pop in the FM stereo module instead of a cassette and you'll be tuning in your favorite FM stereo stations. The FM module automatically direct-couples with the cassette deck so it works off the deck's power. It feeds the FM signal directly to the amplifier, not through the head for great fidelity.

The headphone cable is used as the antenna for FM reception that is equal to the 'FM only' units on the market. The Pocket Concert Plus utilizes a state of the art tape transport and superb electronics. It is manufactured by Unipacific and backed by a limited factory warranty.

TRY THE POCKET CONCERT PLUS RISK FREE

Take your Pocket Concert Plus on walks, to the mountains or as you commute to work. Enjoy your favorite music wherever you are and experience the incredible concert hall realism.

If for any reason you aren't 100% satisfied, simply return it in its original box within 30 days for a courteous refund.

To order your Pocket Concert Plus including the FM module, risk free with your credit card, call our toll free hotline, or send your check for just $69.50. Plus $2.50 postage and handling Order No. 9303. (CA res add 6% sales tax).

You'll be in control of your own environment and enjoying your favorite music with the new Pocket Concert Plus.

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- Sony JSP-99 Select High-Grade Tapes: $25.00/10
- Sony JSP-99 High New Model Tapes: $25.00/10
- Sony JSP-99 Ultra Dynamic: $25.00/10
- Sony JSP-99 High C-90 Quality Tapes: $15.00/10

ADC Sound Equipment:

- Model GX-F80 Solenoid Cassette Deck: $325.00
- Model RSII-240X Digital Cassette Deck: $315.00

JVC Electronics:

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- Model RSII-240X Digital Cassette Deck: $315.00

Leac Cassette Decks:

- Model 506 Semi-Auto Belt Drive $99.00
- Model 609-55 DD Table / Cart. $165.00

ADC Sound Equipment:

- Model GX-F80 Solenoid Cassette Deck: $325.00
- Model RSII-240X Digital Cassette Deck: $315.00

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WHO

JUST INTRODUCED AN
AMPLIFIER WITH
750 WATTS/CHAN.
DYNAMIC HEADROOM
FOR JUST $799?

Who else but Carver.
Meet the new M-1.5.
Bob Carver’s Penultimate Power Amplifier.

*750 watts/chan. dynamic headroom; 600 watts/chan. long-time-period reserve; 350 watts/chan. continuous.

CARVER
PO Box 664, 14304 N.E. 183rd Place
Woodinville, Washington 98072
CIRCLE NO. 9 ON READER SERVICE CARD

MARCH 1982
THE MICROCASSETTES ARE COMING!

I just saw a sign of how the car-stereo industry has changed. Where once the big car-stereo trade show was the APAA (Automotive Parts and Accessories Association) show, the action has now shifted to the two Consumer Electronics Shows. Unfortunately, I didn't discover that till I flew out to see the last APAA show in Chicago. But even with only five or so car-sound exhibitors (ARA-Motorola, Audiovox, Kraico, Lake, and Sparkomatic), I was able to confirm at least one trend I'd spotted last summer's CES—low-cost systems that include an in-dash unit, speakers, and (usually) an equalizer-booster, all in one ready-to-take-home package. Audiovox, Kraico, and Sparkomatic all showed such systems in about the $100-$130 price range.

Kraico's KAS-2 (cassette) and KAS-4 (eight-track) systems even come in clever boxes that can double as a display and have handles for easy carrying. For $130 (suggested retail), they include two shallow (1½ inches deep), 5-inch-diameter coaxial speakers and a booster rated at "20 watts RMS per channel." That's "maximum" power, though: at 10 per cent total harmonic distortion, the systems deliver 15 watts per channel. Extrapolating from the more detailed specs of Kraico's new KE-4 equalizer, I'd guess the power at 1 per cent or less distortion to be about 12 watts per channel. (This sort of incomplete specification is more the rule than the exception in low-price car stereo.) The KE-4, by the way, is extremely compact (only 1 ¼ inches high by 5 ½ inches wide) and has a front/rear fader built in.

Sparkomatic's new LC 52 booster amp has pleasantly clean styling, as does the matching LC 102 three-band equalizer-booster (it has a power meter, which I find less distracting than LED arrays; you have no business watching either while you drive). Both are rated at "40W total stereo power," which is more realistically detailed as 20 watts per channel at 10 per cent distortion. Power at 1 per cent distortion isn't specified for these units; it was, however, specified for the new SR 306 digital-dial in-dash unit, which is rated at 45 watts (presumably for both channels together) at 10 per cent distortion and 40 watts at 1 per cent. By that standard, the LC models would probably deliver about 17 or 18 watts per channel at 1 per cent. Sparkomatic also introduced its SK 300 speaker, a 3½-inch model with the company's perforated whizzer cone for augmented high-frequency response. It's rated at 40 watts power-handling capacity, partly because its center pole piece is vented to allow air cooling.

Audiovox's TP-707 system ($100) includes an AM/FM/cassette unit, power booster, and two speakers. The company also showed new powered equalizers, the 100-watt AMP-700 and the 50-watt AMP-775, both seven-band models. Outputs at 1 per cent total harmonic distortion were 30 and 12 watts per channel, respectively.

There was bigger news far afield from the APAA show, in Osaka and New York. Matsushita (parent company of Panasonic, Technics, and Quasar) made the biggest splash with what was physically the smallest news, a slew of home and car equipment using microcassette tape instead of conventional cassettes. The two mobile items included a conventional-size in-dash tuner/tape unit and an under-dash tape player billed, at about 3 inches wide, 1 ¼ inches high, and 5 inches deep, as the world's smallest car-stereo deck. The in-dash model had auto reverse, power loading, a music finder, and an unspecified noise-reduction system, plus a PLL-synthesizer FM/AM tuner and an amplifier rated at 6 watts per channel. Other specifications included response from 30 to 15,000 Hz with metal tape, a signal-to-noise ratio of 56 dB with noise reduction, and 0.15 per cent wow and flutter. That's not as good as the best full-size cassette equipment, but it's not bad either. Since prerecorded microcassettes are scarce (though some are available in Japan already), there was also a home tuner/re- corder unit that appeared to have wells for two tapes at once. (Fisher, of course, already has a microcassette deck for sale in this country.)

The other big splash was Clarion's, the unveiling of a whole new line of fifteen models. The accent was on smaller chassis to fit today's smaller cars. Since there's not enough room to go into detail on them all, let's look at the most expensive of the new units, the $410 Model 9300T (the top of Clarion's line remains the programmable PE959A at $715). The 9300T is a preamp-level system that requires a separate amp. Its auto-reverse cassette system has switches for Dolby noise reduction and tape equalization, plus a music finder called APC (Auto Program Control), but the big news this year is on the tuner. The 9300T is one of several models with Clarion's "Improved Magi-Tune" FM, which adds keyed AGC (eliminating the manual local/distant switch) and an FM noise canceler to the features in last year's Magi-Tune. The digital tuner also has five-button, ten-station preset tuning plus seek and scan. Also new this year is the capability of receiving receiver's advisory AM stations at 530 and 1610 kHz.

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Other new speakers came from Altec Lansing and AFS Kriket. Altec's SK2 Duplex ($100) is a 5⅛-inch coaxial unit capable of sustained output as high as 107 dB. AFS Kriket has added four new models to its Domax II coaxial series: a 4⅛-inch shallow (1⅛ inch) for $113 per pair, a 5⅜-inch ($130), a 4 x 10-inch ($150 per pair), and a 5 x 7-inch ($575 each). All have ferrofluid-damped, polycarbonate-dome tweeters.

Radio Shack's latest is a five-band equalizer/booster (catalog number 12-1864) at $70. It's rated at "40 watts," which turns out to be a quite-respectable 15 watts per channel at 1 per cent total harmonic distortion. The unit is quite compact (only 1 ¼ inches high by 5⅛ inches wide) and has a front/rear fader built in.
You can now own every record or tape that you may ever want... **at tremendous savings** and with no continuing purchase obligations. You can get valuable free dividend certificates, you can get quick service and all the 100% iron-clad guarantees you want.

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THE TESTING OF TAPE RECORDERs

Beginning with this issue, readers will notice (see page 34) a slight change in Stereo Review's test reports. To ease an overcrowded schedule at Hirsch-Houck Laboratories, Starksonic Studio—that is to say, myself—will take over the task of testing and reporting on tape equipment. This is a good opportunity to discuss my method of going about it, though it does not differ from Julian Hirsch's test technique in any significant way.

I usually begin with some rather mundane, uncontroversial checks: the fast-forward and rewind times for an ordinary C-60 cassette, the input-signal level necessary to produce a 0-dB indication on the machine's meters, the output from the deck at this level, the maximum signal the microphone input will accept before producing obvious distortion as seen on an oscilloscope, etc. These checks give me a chance to handle the operating controls, to note how much typical machines move. These checks give me a chance to handle the operating controls, to note how much they overshoot or undershoot the occasional unit that has been thrown out of alignment by rough handling during transit.

Record-playback frequency response is measured both at a machine's indicated 0-dB level and at a level 20 dB below that point. The 0-20 dB readings are traditionally taken as the "frequency response" of the deck; the 0-dB level shows primarily the high-frequency limitations of the machine. Ideally, both lines in the graph should be r fills, and with some professional 15- or 30-ips open-reel decks as well as with digital (PCM) recorders this ideal can very nearly be met. With cassette decks, on the other hand, the slow tape speed (11/8 ips) invariably introduces a high-level high-frequency rolloff (far less with metal-particle tapes than with ferric or Cr02-type formulations). In testing cassette decks, therefore, I always use either the manufacturer's specified tapes or those I have found to give the flattest frequency response, for my task is to tell the reader what the machine can do if used as its maker intended. I also check the machine's response with a number of other popular tapes (as many as five for each bias/equalization switch setting on the machine) to ensure compatibility with a representative sample of the cassettes that are available to tape buyers in various parts of the country.

The next test I make, using my GenRad sweep-frequency audio generator and chart recorder, is of the frequency response of the deck at input levels of -20, -30, and

(Continued on page 28)
If you think "dropouts" lead to street gangs, you're not ready for Memorex.

What dropouts can do to cassette recordings is criminal. Dropouts are the annoying moments of signal loss that steal the clarity — and the life — from your music.

So every part of a Memorex cassette tape is specially engineered to help eliminate dropouts.

We developed an extraordinary binding process called Permapass™ to protect against dropouts caused by oxide wear-off. Permapass locks each oxide particle, each musical detail, onto the tape. For true sound reproduction play after play, even after 1000 plays.

Our tape transport mechanism is tooled to such precise tolerances, it virtually eliminates signal loss caused by tape-tracking error.

And to prevent those dropouts caused by dust, fingerprints and other mishandling of the inside, we reinvented the outside: a unique fumble-free album that accepts the cassette upside down or right side up.

So don't risk your good music to a bunch of dropouts.

Record on Memorex. In HIGH BIAS II METAL IV or normal bias IV RX I. Each gives you true sound reproduction even after 1000 plays.

In fact, a Memorex cassette will always deliver true sound reproduction, or we'll replace it. Free.

To settle for anything less would be a crime.
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State 5% SC, TX or all Alaska.

(sometimes) —40 dB with the noise-reduc-
tion system(s) switched in. While these re-
sults are not presented graphically (because
any noise-reduction system can introduce or
magnify frequency-response variations),
any deviation of more than ±2 dB from the
response without noise reduction will be
noted in the “No Noise Reduction” report.

Distortion and signal-to-noise-ratio mea-
surements come next. I use the same test
 tapes for these as for the frequency-re-
ponse measurements (manufacturers don't
always do this), together with a low-distor-
tion Sound Technology 1700B audio gener-
or and a General Radio 1101T wave ana-
lyzer. The wave analyzer allows one to
"tune in" (and measure) any specific distor-
tion component. With tape, the third har-
monic (3,000 Hz if, say, a 1,000-Hz input
signal is used) is far by the dominant distor-
tion product, so this is what I measure, us-
ing a 315-Hz input signal for cassette decks
and 400, 700, or 1,000 Hz for open-reel, de-
pending on tape speed.

THIRD-HARMONIC distortion is first mea-
sured using an input level that produces a
0-dB (or 0-IVU) indication on the deck's
record-level meters or an audio display, for this
is what a user unqualified with the aid of a
full set of test instruments must rely on. Technically,
however, the signal part of a signal-to-noise
ratio is referred not to a 0-dB meter indica-
tion but to the playback level that results
when the input is raised sufficiently to pro-
cede 3 per cent third-harmonic distortion.
The difference between the 0-dB and the
(usually) higher 3 per cent distortion output
levels is called headroom, and it represents
the leeway or safety margin the recordist
has available between what his meters are
telling him and the onset of audibly serious
distortion.

With VU meters, a 6- to 10-dB safety
margin is normal, for these indicators un-
derread the brief but powerful transients in
music and speech that would overload the
tape. Less leeway is needed for peak-reading
record-level indicators, and with "equalized"
peak-reading meters the 0-dB and
3 per cent distortion points may coin-
cide as the indicator takes into account the
treble boost (equalization) that is part of
the record circuitry. Headroom is neither
good nor bad, but rather appropriate or
inappropriate as a means of ensuring that a
0-dB indication is, in fact, a realistic record
level that will not produce either severe dis-
tortion from recording at too high a level
or high hiss levels from recording at too low a
level.

After the maximum permissible signal
has been determined, the output of the au-
dio generator is shunted and the tapes are
recorded with no input signal. The playback
level of this recorded non-signal is the noise
part of the signal-to-noise ratio. I measure
this recorded noise in three ways: un-
weighted, in which all frequencies (up to
about 80,000 Hz) register equally on the
meter, and A-weighted and CCIR/ARM-
weighted, in which the frequency distribu-
tion of the noise is weighted so that it takes
account of the sensitivity of the ear to very
low-level sounds. The A-weighting method
has been used for many years, although it is
internationally accepted (not least because it
gives the best-looking numbers in a S/N
measurement). The CCIR/ARM noise
measurement is newer and tends to display
the action of a noise-reduction system such
as Dolby-B to better advantage. To report
all possible signal-to-noise ratios—with at
least three tapes per deck and three noise-
level measurements per tape, each with and
without one or more noise-reduction sys-
tems—would clearly overload the patience
of all but the most technically minded.
Therefore, I select and identify only the
most meaningful numbers to be included in
the text.

Wow-and-flutter (to which my ear is par-
ticularly sensitive) is measured both on the
wrms (weighted, root-mean-square) basis
most frequently used in cassette-deck speci-
fications (again, because of the difficulty of
looking numbers) and on the DIN/IEC/IHF peak-weighted basis used for profes-
sional equipment; I find that the latter more
accurately indicates the audiobly objection-
able aspect of unstable tape motion. When
a deck's wow-and-flutter comes out lower
than the reliability limits of my TDK and
Teac wow/flutter test tape, I measure on a
record/rewind/play basis.

At this point in my testing, a great many
hours and many thousands of dollars of test
equipment have gone into checking the per-
fomance of a tape deck from which I have
yet to hear a single note of Mozart. The fi-

narl stage of my test procedure is to use the
deck as a consumer would use it—for re-
cord ing and playing back music. (Julian
Hirsch tends to listen first and then test; I
tend to test first and then listen, but since
we are equally attuned to the pitfalls of ei-
ther procedure, we each have a hope, able to
offset our biases.) Any good cassette deck
should be able to make nearly indistinguis-
hable copies of FM broadcasts and of
most LPs on the market, and this is what
most prospective buyers want to know.

Dubbing direct-to-disc records or my own
master tapes (analog or digital) made in a
hall with whose acoustics I am thoroughly
familiar is a more severe test which only the
finest cassette decks can pass. But a good
approximation to this testing challenge is
afforded by interstation FM hiss, a signal
that is technically neither "white noise" (equal energy per cycle) nor "pink noise" (equal energy per octave) and which Julian
and I long ago agreed to call "rosé noise." If
you don't hear a difference between the re-
cord and playback performance of a deck
using FM hiss recorded at a level of −10
dB or higher, you don't need to worry about
the frequency response of the deck.

In general, I suspect that most readers
will notice little or no difference between a
Hirsch-Houck Laboratories report submit-
ted by Julian Hirsch and one submitted by
Craig Stark. That is because the tests are
in basic philosophical agreement as to the
effects important in tape-machine per-
formance and how to test them.
This is no drill. This is the Air National Guard. The professionals who keep watch on the skies over America. All day.

Every day

It's serious business, because it's for real. And everyone from the jet engine mechanic to the weather technician knows it.

That's why they're here.

They know every time a pilot leaves the ground, they're riding with him. Their communications network, his ears. Their radar scopes, his eyes. Their aircraft maintenance, his life.

And whether it's a ground check on an electronic circuit. Or a steady hand on a refueling boom nine miles high. Everything they do brings a special satisfaction. Because it counts.

If you're looking for the chance to do something meaningful. If you've got what it takes to take on a real job. If you get that tingle down your spine when a jet engine fires up. Then maybe you should help us do what we do. We Guard America's Skies.

See your local Air National Guard recruiter. Or call us toll-free 800-538-0936 (except in Alaska, Hawaii and Puerto Rico): in Maryland call 301-981-3610.
For over 25 years, the Harman Kardon legend has been built on dedication to a single objective. Musical truth.

From tape decks and turntables to receivers and separates, Harman Kardon represents the ultimate in sonic quality. And pictured above is the ultimate in Harman Kardon electronics.

The hk775X2 dual mono amplifiers were created for the music lover who demands the sonic improvements that come from assigning separate high-powered* amplifiers to each stereo channel. Among the many leading design concepts they incorporate are three of particular note.

1. High Current Capability allows the hk775X2 to deliver nearly unlimited instantaneous power under heavy, low impedance loads. Low frequency transients, such as the beat of a kick drum, are reproduced with their tight, solid attack and full dynamic power completely intact.

2. The use of Low Negative Feedback puts total TIM distortion at less than .007% for noticeably smoother, dramatically more open highs.

3. Ultrawideband frequency response keeps phase shifts well outside the audible spectrum, for an incredibly transparent, solid stereo image.

The hk775 preamplifier has an 8-stage phono section with an impressive .009% THD. It uses Ultrawideband and Low Negative Feedback design and FET front ends on both low and high level stages.

Finally, the hk715 offers Digitally Synthesized Quartz-Locked tuning for accuracy and 8 presets for convenience. Like all Harman Kardon components, the hk700 series achieves its extraordinary openness and depth through attention not only to bench test specs, but to how the designs sound while reproducing music.

Because ultimately, what must sound real is the music.

For your nearest dealer, call toll-free, 1-800-528-6050, ext. 870.


*130 watts RMS per amplifier, into 8 ohms, 20Hz-20kHz, with less than .03% THD.
Technical Talk
By Julian D. Hirsch

Perhaps because it is so difficult to describe the performance of a loudspeaker using terms that convey a sense of its sound qualities or overall merit, there have been many attempts to assign numerical "accuracy" ratings to speakers, the higher the number the "better" the speaker. The aim, of course, is to remove these judgments from the realm of personal taste.

It is possible, within certain limitations, to gauge the accuracy of a speaker "objectively." Speaker accuracy can be defined as the speaker's ability to put out an acoustic analog of the electrical audio-input signal. Unfortunately, acoustic output can be defined and measured in many different ways, and the IHF Committee brought together to formulate a "Speaker Test Standard" soon learned. There are so many ways to measure the acoustic output of a speaker that even those engineers who agree that "accuracy" is the goal cannot agree on how to go about measuring it.

Consumers Union—the nation's (and possibly the world's) largest consumer testing organization—has designed a test technique and uses it to assign precise numerical "accuracy score" ratings to the speakers they test. The scores range from 0 to 100 (the latter for a "perfect" speaker), with most reasonably good speakers falling between 70 and 90. The text accompanying CU speaker reports is explicit about the organization's primary criterion for speaker perfection: uniform power output over the frequency range from 110 to 14,000 Hz.

Measuring a speaker's power response is a rather complex process. The CU technique involves hundreds of measurements around an imaginary sphere, with the speaker at its center, in an anechoic chamber. Computer processing of some 18 million pieces of data is used to develop the final power-response curve. That curve is then modified to account for the relative perceived loudness of different parts of the frequency range, and its deviations from an ideal flat response are further processed to derive the final accuracy score.

We are told that this procedure is further checked to confirm that it corresponds to how speakers really sound. To do this, a high-quality speaker in CU's listening room is carefully equalized to give a measured response in the room that is flat from 110 to 14,000 Hz. Blindfold A-B listening tests between the reference speaker and the various speakers under test show that speakers with high scores tend to sound more like the reference speaker than do the ones with lower scores.

This is admitted by an oversimplified account of what is really a very complex measurement procedure. My criticism of it lies not with the measurements per se, which are carefully done, but with the implication that the end result is a meaningful "accuracy" score or even a usable figure of merit. At best, all that CU can show is the uniformity of a speaker's power output over a limited 110- to 14,000-Hz bandwidth—a range that does not meet even minimal high-fidelity standards. In fact, the area below 110 Hz represents much of the manufacturing cost and design skill in high-fidelity speakers, and to discount it is to negate much of the reason for paying more for extended low-bass response.

The major speaker-testing problem (and CU's reason for the 110-Hz low-frequency cutoff) is that room effects are so pronounced at low frequencies that it is simply not practicable to rate speakers in that frequency range independently of the room and the speakers' placement in it. In fact, room acoustics have a profound effect on the sound of any speaker at almost any frequency, and especially at those below about 500 Hz. This is why it cannot be said unequivocally that any speaker, no matter how "good" it measures or sounds in a given room, will perform exactly the same way in another room. In fact, it will not!

In an effort to "compensate" for the effect of a room on low frequencies, CU calculates a "room-corrected" response using a computer modeling program. Roy Allison of Allison Acoustics, in a recent letter to me, points out some deficiencies in CU's method. Here are a few of his salient points:

1. "CU has finally realized that loudspeakers are used in real rooms. But the credibility of the most recent report [September 1981] is destroyed by what seem to be mindless inconsistencies:"

   1. In calculations of room-boundary corrections, CU assumed that loudspeakers would be located 5 feet from a side wall. This is much farther than would be typical. Loudspeakers placed this way on a 13-foot wall, for example, would be only 3 feet apart! If a more reasonable distance had

Consumer Reports' Speaker Ratings

Tested This Month
Phase Linear DRS 900 Power Amplifier • B&W DM10 Speaker System
Empire ICS/400 Phono Cartridge • Micro Seiki MB-38 Turntable
Technics SV-P100 Digital Cassette Recorder
been assumed, the response curves would
have been quite different—much worse for
most of the speakers tested, perhaps better
for some.

2. Loudspeaker directivity was not con-
sidered in arriving at accuracy scores.

4. Only the average deviation from flat-
ness was counted in the accuracy-score
computation. Thus a smooth [but not
"flat"] loudspeaker was judged to have no
advantage compared with one having alternat-
ing peaks and dips.

In my view, measurements in anechoic or
reverberant environments are obviously
useful for design engineers. But they do not
tell us how "good" or how "accurate" a
speaker may be, particularly when arbitra-
ary "weightings" are assigned to various
measured factors, as in CU's reports. CU's
"accuracy rating" is arrived at by evaluat-
ing the factors they choose to regard as de-
termining accuracy. Although we agree
that accuracy is the primary design goal, we
disagree as to how that accuracy is to be
determined and—particularly—whether it
can be described meaningfully by a single
numerical rating.

Another unsettling aspect of the CU ac-
curacy-rating system is that the scores are
accompanied by the statement that a differ-
ence of as much as eight points is not read-
ily resolvable by ear (in other words, such a
difference is meaningless to the consumer to
whom the report is addressed). Neverthe-
less, it is nearly impossible for a lay reader
to avoid being influenced by the supposed
ranking order—which has in any case been
influenced by arbitrary weightings.

In CU's September 1981 test of mid-
price speakers, nineteen of the thirty-two
units fell within eight points of each other,
and many of those matched within a couple
of points. CU admits that two speakers
with the same score do not necessarily
sound alike (because their departures from
flat occur at different frequencies).

I was struck by the fact that only two
speakers had a reasonably flat power-re-
sponse curve in these measurements, yet
neither ranked at the top, although they
were within two or three points of the top-
ranking model (whose response was far
more ragged than either) and not too differ-
ent from some of those falling far below it.

There is no point in belaboring this sub-
ject further. It is worthy of comment be-
cause of the influence of Consumer Reports
on the public's buying habits and CU's (to
me) rather incredible attempt to assign "ob-
jective" numerical ratings based on their
subjective opinions of what is and is not im-
portant in loudspeaker performance—per-
formance which in any case is influenced to
a major degree by the listening room and
the speaker's specific placement in that
room. It would seem that Consumers
Union's highly advanced and computerized
test facility deserves to be better supported
by common sense and good judgment.

A reply from Consumers Union will ap-
ppear in the April issue.

## Equipment Test Reports

**By Julian D. Hirsch**  
Hirsch-Houck Laboratories

**By Craig Stark**  
Starksonic Studio

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**Phase Linear DRS 900 Power Amplifier**

- **Phase Linear DRS 900 Power Amplifier**
- **Power Rating:** 150 watts per channel
- **Size:** 17 1/2 x 13 x 5 1/2 inches
- **Weight:** 38 pounds
- **Price:** $1,095

The new Phase Linear DRS series of amplifiers employs a high-efficiency design with very high dynamic and clipping headroom. The amplifiers are of reasonable size and weight and run cool under normal operating conditions, yet they can supply very large power outputs when called on to do so.

Previous "high-efficiency" designs have all used switchable or "smart" power supplies that allowed the amplifier to operate with low d.c. supply voltages most of the time (avoiding the need to dissipate large amounts of wasted power in heat). At some power level, above which the low d.c. volt-
age is not sufficient to allow undistorted output, the supply voltage increases to han-
dle the signal requirements. This, of course, calls for some type of power-supply regula-
tor that can respond to level changes even faster than the amplifier itself.

Phase Linear's DRS design differs from any of the earlier systems in important (Continued on page 38)
Professional quality breaks the cassette barrier.

A true professional recorder must do more than deliver superb sound reproduction. It must do so consistently, hour after hour, year after year.

Now, for the first time, you can buy a cassette deck with long-term performance comparable to the finest reel-to-reel recorders. Not surprisingly, it's from Revox.

When you look inside a Revox B710, you'll see the difference immediately. First, the tape transport chassis is made from aluminum alloy die-castings (not plastic or imprecise metal stampings), with parts machined to the same critical tolerances as in our pro recorders. And second, the B710's dual-capstan tape drive employs two servo-regulated Hall Effect motors, with two additional microcomputer-controlled motors for tape spooling. No belts, pulleys, or clutches will be found in the B710, because such compromises are not acceptable in a professional machine.

Granted, the B710 does offer a long list of convenience features. A precise 4-digit LED counter, for example. A 24-hour timer for programmable start and stop in record or play. Mic/line mixing. Automatic sensing of tape types. Automatic start-of-oxide cueing with counter reset to zero. And Dolby noise reduction.

But don't let the features or pretty face fool you. At heart, the B710 is a seasoned pro. Hear it today, along with our other superlative audio components from Switzerland and West Germany, at your Revox dealer.

For more information contact:
Studer Revox America, 1425 Elm Hill Pike, Nashville, TN 37210;
(615) 254-5551.

STUDER REVOX
Professional standards in audio components
Nobody does it better.

Winston

This is your world.
This is your Winston.
Taste it all.

KING: 15 mg. "tar", 1.1 mg. nicotine.
100's: 15 mg. "tar", 1.0 mg. nicotine, av. per cigarette by FTC method.

New 100's pack.

Winston
FILTERS
KING SIZE
FULL RICH TASTE

Winston
100's
operating details. It uses two levels of power-supply voltage but controls the positive and negative supplies separately. The transition is determined by the instantaneous voltage across the output transistors. If that voltage becomes too low for linear operation, only the necessary supply voltage (either positive or negative, depending on the waveform being amplified) is increased to restore linearity. Phase Linear points out that their power supply has a very low output impedance (good regulation) and that all its dynamic switching is done after rectification and filtering and with sufficient speed to track a 20,000-Hz signal.

There are three models in the DRS series, rated at either 150 or 50 watts per channel (the lower power rating is available in both basic-amplifier and integrated-amplifier formats). We tested the higher-power unit, the DRS 900, which is a basic power amplifier rated at 150 watts per channel into 8-ohm loads from 20 to 20,000 Hz with no more than 0.015 per cent total harmonic distortion. Because of its DRS circuitry, the Model 900 has a dynamic power output of 450 watts per channel into 8 ohms, corresponding to an IHF dynamic-headroom rating of 4.77 dB. Up to its 150-watt rated output, the amplifier operates only with the lower of its two supply voltages.

The Phase Linear DRS 900 is finished entirely in satin gold, with a panel insert containing a power-output display. Two slanted (45-degree) lines of LEDs extend in length to show the equivalent power output into 8-ohm loads, with calibrations extending from 0.01 to 150 watts. Another scale, at right angles to the first, is calibrated in terms of peak output up to 300 watts, and for use with this a single peak-reading LED, moving ahead of the main line, shows the peak level simultaneously with the longer-term program variations. The decay time of the peak indication can be set to fast or slow (the former corresponding to standard VU-meter ballistics). Also, there is a hold button on the panel that keeps the peak light at the highest reading it attains, which is a very convenient way to determine the true peak-to-average level requirements for any piece of program material. Other lights on the power-display panel glow at peak outputs of 300, 700, and 900 watts per channel, and there are clipping indicators that show the onset of actual waveform clipping. The DRS 900 can drive either or both of two pairs of speakers, as selected by front-panel buttons.

**Laboratory Measurements.** Our test sample of the Phase Linear DRS 900 was a pre-production unit essentially identical in appearance and circuitry to the production units to follow. Preconditioning it at a 50-watt output left the top of the amplifier over the internal heat sinks fairly hot, and later full-power operation made it very hot though never too hot to touch.

With both channels driving 8-ohm loads at 1,000 Hz, the distortion was between 0.0015 and 0.002 per cent up to about 150 watts output, decreasing to 0.001 per cent from 130 to 400 watts. The output clipped at 400 watts, giving a clipping-headroom rating of 4.26 dB. With lower load impedances, the 10-ampere line fuse of the amplifier blew at or before the clipping point, so we had to make those measurements with only one channel driven. The 4-ohm clipping output was 690 watts, and the 2-ohm output was 420 watts. For comparison, we also checked the 8-ohm clipping output with one channel driven; it was 465 watts.

The 1000-Hz distortion with 4-ohm loads was in the range of 0.002 to 0.003 per cent up to 400 watts output, reaching 0.008 per cent at 600 watts. With 2-ohm loads, the distortion was low up to 100 watts (under 0.0068 per cent) but increased gradually at higher power outputs before actual clipping occurred. At 300 watts the distortion was 0.25 per cent and at 400 watts it was 0.8 per cent.

When we drove both channels of the amplifier to their rated 150 watts into 8 ohms across the audio range of 20 to 20,000 Hz, the distortion was a minimum of 0.0006 per cent in the 80- to 200-Hz range, less than 0.0035 cent from 20 to 7,000 Hz, and a maximum of 0.018 per cent at 20,000 Hz. At lower power outputs the general behavior of the amplifier was similar, with slightly higher distortion readings at middle and high frequencies.

The dynamic-power output of the DRS 900 was also very high. Driving 8 ohms, the maximum output during a 20-millisecond burst at 1,000 Hz was 460 watts, and with 4- and 2-ohm loads the respective outputs were 670 and 430 watts. The 8-ohm IHF dynamic-headroom rating was 4.87 dB, slightly surpassing the amplifier's rating of 4.77 dB. The close similarity between the clipping and dynamic-power outputs is characteristic of a well-regulated power supply, confirming Phase Linear's claim that the DRS 900 has a "stiff," low-impedance power supply.

The slew factor of the amplifier was 11, with slew-limiting waveform distortion appearing at 220 kHz when we drove the amplifier to rated power output. An 80-millivolt input was needed for a reference-power output of 1 watt, and the A-weighted noise level was 78 dB below 1 watt (100 dB below 150 watts). The amplifier was stable with reactive loads simulating loudspeakers, although under some conditions the loads produced an insignificant ringing at about 75 kHz on a square-wave signal. The IHF intermodulation distortion, using input signals of 19 and 20 kHz, was extremely low and barely detectable on our spectrum analyzer.

The 18-kHz distortion product was at -96 dB (referred to 150 watts), and the 1,000-Hz difference product was undetectable down to our measurement floor of about 100 dB below rated output (150 watts).

**Comment.** Phase Linear was evidently looking ahead to the anticipated growth of digital and other recording systems with large dynamic-range requirements when they designed the DRS series of amplifiers. The DRS 900 is certainly one of the most powerful amplifiers available to the home user, and few are likely to find it inadequate for reproducing today's most demanding recordings through most speakers. Even if it can be clipped, we discovered, at a loud (but not overpowering) listening volume, but that will occur only with a few highly asymmetrical waveforms such as recordings of a trumpet played close to its original acoustic level through speakers of low to medium efficiency. (Needless to say, the speakers used with this amplifier should be well protected or rated to handle very high-power inputs.) We watched the clipping lights on the DRS 900 come on with such a signal, together (Continued on page 40)
ZX-7 puts you in complete control to unleash the potential of every cassette. Adjust not only bias and level but azimuth, too with Nakamichi's "Discrete" 3-Head system! Everything to optimize performance lies at your fingertips: 400-Hz and 15-kHz test tones, peak-reading electronic meters, and a phase-sensitive azimuth indicator.

Dolby-C NR reduces tape hiss by 20 dB while B-Type NR maintains compatibility with your present library. An exclusive two-speed Master Fader creates smooth professional fades. The unique Nakamichi Asymmetrical, Dual-Capstan, Diffused-Resonance Transport—with a remarkable ability to suppress wow, scrape flutter, and modulation noise—controls tension so precisely that the pressure pad isn't used! Its unique Motor-Driven Cam and N-MOS microprocessor features two-speed Easy Cue, Auto Play, and immediate access between modes—even from Play to Record!

Why settle for less? If you're serious about recording, you owe yourself an audition of the ZX-7 at your Nakamichi dealer.

Nakamichi

For more information, write Nakamichi U.S.A. Corp., 1101 Colorado Ave., Santa Monica, CA 90401
with the 200-watt lights on a pair of KEF 105.2 speakers, yet the sound betrayed no evidence of clipping (it was obviously a very brief overload).

The LED power indicators of the DRS 900 proved to be reasonably accurate when viewed from the front to avoid parallax errors. The indicators read within 20 to 30 percent of the actual output at most points, which is close enough for their intended purpose. The "X 1/10" button increased the display sensitivity by only four times at low readings and by more than ninety times near the upper end of its scale. Of course, that may have been an anomaly of the prototype test sample.

If the Phase Linear DRS 900 seems expensive for a 150-watt amplifier (it really isn't, compared with some we have seen), think of it as a very fine 450-watt amplifier. Viewed in that light, it is something of a bargain, especially when one considers that it can be picked up and carried by almost anyone without risking personal injury! Regardless of how one defines amplifier efficiency, it seems to us that Phase Linear has made a truly efficient amplifier in the DRS 900. It becomes only slightly warm in normal operation, yet it can deliver prodigious power outputs when necessary without distortion or strain. The high power of the DRS 900 is useful significantly longer than the brief 20 milliseconds of an IHF dynamic-power measurement; even though the amplifier becomes quite hot during sustained high-power operation, it can outlast the longest of any demanding passages one is likely to find in musical material (our test unit never shut down for thermal reasons, only for blown line fuses).

This is a rugged, handsome amplifier that sounds as good as it looks. It represents a genuine step forward by a company whose name has been virtually synonymous with high-power, high-fidelity amplifiers since its inception.

—Julian D. Hirsch

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Technics SV-P100 Digital Cassette Recorder

- Technics SV-P100 Digital Cassette Recorder
- Size: 17 x 10 15/16 x 13 3/4 inches
- Weight: 40 pounds
- Price $3,000

The Technics SV-P100 is the first integrated home digital recorder to be reviewed in these pages and possibly anywhere. Built to the recently adopted EIAJ (Electronic Industries Association of Japan) standard for consumer digital audio, it employs VHS videocassettes and is a self-contained, one-piece unit.

Audiophiles who have followed the progress of the industry have long known that home digital tape machines were coming, but probably few readers are aware of the basic principles by which a deck such as the SV-P100 operates. In a regular analog open-reel or cassette recorder the attempt is made to produce tracks of magnetic fields on the tape that correspond, one-to-one, with the audio material being recorded. Even the best professional systems fail in this attempt, specific problem areas being the handling of high-level high frequencies, mechanical imperfections that lead to wow and flutter, and inadequate signal-to-noise ratio. (Continued on page 42)
...and then came Super Feedforward.

Not many years ago a "high fidelity" amplifier delivered 5 watts with 5% harmonic distortion. Today, distortion levels of 0.05% — or even 0.005% — in amplifiers with hundreds of watts and a much wider frequency range are almost routine.

Reducing harmonic distortion has usually been achieved by using negative feedback. But too much negative feedback can introduce a new kind of distortion, TIM (Transient Intermodulation Distortion) that audibly degrades the musical sound.

To reduce TIM and other forms of residual distortion, Sansui developed its DD/DC (Diamond Differential/ Direct Current) drive circuit. Then, to eliminate the remaining vestiges of high-level, high-frequency distortion in the amplifier's output stage, Sansui engineers perfected a unique circuit which, though proposed years ago, has now been realized in a practical amplifier design. Super Feedforward, the new Sansui technique, takes the leftover distortion products present in even an optimally-designed amplifier, feeds them to a separate, error correcting circuit that reverses their polarity, then combines them so they cancel themselves out against the regular audio signal. What's left is only the music, with not a trace of distortion.

While Super Feedforward circuitry puts Sansui's AU-D 11 and AU-D 9 amplifiers in a class by themselves, all our amplifiers are renowned for their musicality, versatility, and respect for human engineering. Add a matching TU tuner to any of Sansui's AU amplifiers and you'll appreciate the difference 35 years of Sansui dedication to sound purity can produce.

For the name of the nearest audio specialist who carries the AU-D 11 and AU-D 9 or other fine components in Sansui's extensive line of high fidelity products, write: Sansui Electronics Corp., 1250 Valley Brook Avenue, Lyndhurst, NJ 07071.
A digital deck such as the SV-P100 operates on very different principles. Instead of trying to record the audio waveform as analogous magnetic fields, the SV-P100 deliberately samples the audio level some 44,056 times each second and records each sample as a fourteen-bit digital binary number. This technique provides an available dynamic range of 84.3 dB. No less important, distortion is kept under 0.01 per cent.

In theory, the high-frequency response of a digital recorder is equal to half its sampling rate, though the necessary input and output filters reduce this somewhat. On the other hand, because the digital signals are "clocked"—synchronized with an extremely accurate quartz-crystal reference oscillator—mechanically generated wow-and-flutter (and attendant FM-modulation noise) are essentially eliminated.

The front panel of the SV-P100 is designed to convey a sense of familiarity to the regular cassette user. Pressing the OPEN/CLOSE button swings open a wide-window door into whose rear slides the VHS cassette. The door is closed automatically. While there is a light within the cassette well, it is not sufficient to illuminate either the cassette's label or tape.

The familiar logic-activated solenoid pushbuttons for RECORD, FAST FORWARD, PLAY, STOP, REWIND, and PAUSE are provided, together with a SEARCH button that is used to locate (digitally) preselected spots on the tape for subsequent playing. There are actually three memory systems built into the SV-P100. The locate button operates similarly to the memory-rewind/play functions of a regular cassette deck. One of the two auxiliary tape tracks, which do not in any way interfere with the audio, is used for "search" signals that may be activated at any point but are automatically inserted when a recording begins. These allow one to locate either the cassette's label or tape.

Laboratory Measurements. Because of its digital configuration, the Technics SV-P100 precluded many of the tests I normally make on a tape deck. There are no calibrated playback frequency-response tapes available, for example, and trying to measure wow and flutter was an exercise in futility—all I could detect on a record-playback basis was the residual readings of my meter (0.008 per cent weighted rms, 0.01 per cent DIN peak-weighted). And with digital recording there are no brand-to-brand differences in tape-bias requirements that would add to this response.

The third-harmonic distortion from a standard 315-Hz tone at an indicated 0-dB level measured only 0.008 per cent—again, about the residual of my wave analyzer. At a +2-dB input, however, distortion was up to 4.8 per cent, and by +4 dB it rose to more than 16 per cent. What this indicates is that digital recording is extraordinarily good within its defined limits, but there is little margin for error. Fortunately, the signal-to-noise ratios available enable you to record well under 0 dB without encountering objectionable hiss (or its digital equivalent, "quantization noise"). The peak-reading display of the SV-P100 was fully adequate to the task of monitoring levels as critically as required.

I used the output at 0 dB as my reference point for measuring signal-to-noise ratios. Unweighted, the S/N of the SV-P100 registered a spectacular 80.3 dB, improving to 82.2 dB and 84.5 dB with CCIR/ARM and IEC A-weighting, respectively. This, by the way, is without the use of a noise-reduction system, which would be superfluous.

A signal level of 150 mV was required to produce a 0-dB indication on the SV-P100's indicators, and the maximum output voltage with that input was a little over 2 volts. Using the microphone inputs, a 3.5 mV signal was required for 0 dB at full gain, and input overload did not occur until 210 mV was applied.

Comment. To evaluate—and appreciate—a digital recorder such as the SV-P100 there is only one really satisfactory "test signal": the live performance of music. It is pointless to ask whether a deck can make satisfactory dubs of FM and discs when the deck is far better than any source could possibly be. Technics was kind enough to lend me some of their digital master tapes made on the SV-P100 and some recorded on a previous prototype; impressive as they were, the only way I could be satisfied was to "roll my own" in a recording session. (Continued on page 46)
Loran is the cassette of the future...but it's here right now. The original and only heat resistant cassette shell and tape that withstands the oven temperatures of a car dashboard in the sun. Testing proves that even TDK or Maxell cannot take this kind of punishment.

With Loran, you'll capture a full range of sound as you've never heard it before. Tape that delivers magnificent reproduction of highs and lows, along with an exceptionally low background noise level. Super sensitive with an extremely high maximum recording level capability. That means you can record Loran at high input levels for greater clarity. As a matter of fact, we recommend it.

Because of our cassette shell, Loran tape can stand up to being accidentally left near a source of excessive heat in your home or in your car. It is indeed the finest quality tape available today.

Loran also has exclusive features not available on any other cassette. Safety Tabs™ (patent pending) prevent accidental erasures. But unlike other cassettes, you can restore erase and record capabilities simply by turning the Tab screw a 1/2 turn. Our Hub Lock (patent pending) secures the tape to the hub in such a way that the harder it is pulled the tighter it's held.

With all these features, it's no wonder Loran was selected as "one of the most innovative consumer electronics products..." by the Consumer Electronics Show Design and Engineering Exhibition.

Every Loran tape comes with a full lifetime warranty. Listen to Loran. The new generation of cassettes is here right now.

Loran The Design of Spectacular Sound

WHEN ALL OTHERS FAIL...LORAN CASSETTES ARE SAFE AND SOUND SENSATIONAL.
Come to where the flavor is.

Marlboro Red or Longhorn 100's—
you get a lot to like.

Shure lent me a pair of their excellent SM-81 condenser microphones (and a stand), and Technics supplied one of their professional Ramsa WR-130 mixers so I could feed the SV-P100 (electrically) with a signal worthy of it. Flutist Sydney Goldsmith and classical guitarist Lisa Hurlong, both professional musicians, kindly consented to be my “test signals.” Subject to commercial vagaries, you’ll one day be able to hear the results for yourselves on LP or tape; for now I can only report that it was the cleanest sound I have ever recorded, and I’ve recorded a lot. To me, that says enough about the SV-P100’s capabilities.

-Craig Stark

Circle 141 on reader service card

B&W DM10 Speaker System

- B&W DM10 Speaker System
- Rated Frequency Response: 75 to 20,000 Hz ±3 dB
- Size: 19 x 10 x 9¼ inches
- Weight: 14½ pounds
- Price: $169

The B&W DM10 is the newest and lowest-price addition to the product line of the well-known British speaker manufacturer. Most B&W speakers are priced in the upper-middle to higher brackets, and the DM10 now brings their essential qualities to a much broader market. A two-way bookshelf system with a walnut-veneer cabinet, the speaker is especially well suited to shelf mounting, either vertically or horizontally. Optional pedestals are available from B&W for free-standing operation.

The woofer of the DM10 is an 8-inch unit designed specifically for this system and employing B&W’s proprietary impregnated-fiber cone structure. Unlike other B&W speakers, the DM10 uses a vented enclosure. The company’s advanced computer techniques, which have been largely responsible for the outstanding performance of their more expensive speakers, were used to develop the woofer, enclosure, and crossover network of the DM10. Its tweeter is the same 1-inch dome type used in a number of other B&W speakers. The crossover, unlike those of most comparably priced speakers, is a third-order Butterworth filter that gives an 18-dB-per-octave attenuation outside the operating range of the drivers.

The rated frequency response of the B&W DM10 is 75 to 20,000 Hz ±3 dB measured at a 2-meter distance (anechoic measurement). It is nominally an 8-ohm system whose impedance is said to remain above 6.4 ohms in the audio band. The rated sensitivity of the speaker is 87 dB sound-pressure level (SPL) measured at 1 meter when driven by 1 watt. The DM10 is suitable for use with amplifiers rated between 10 and 75 watts per channel, and it can generate a maximum SPL of 106 dB at 1 meter at 1,000 Hz.

Laboratory Measurements. Splicing the smoothed room-response curve to the close-miked woofer curve resulted in a very flat and smooth composite frequency response over the larger part of the audio range. The output between 150 and 600 Hz seemed to depend more on speaker placement than is usually the case, although that may have been merely a reflection of the unusually smooth response at higher frequencies. Depending on whether we installed the speaker against a wall or on stands a few feet from a wall, we observed variations of as much as ±5 dB in that frequency range. These are really very minor modifications of a speaker’s response, and we mention them only because drawing an average between those extremes resulted in a composite frequency response within ±2.5 dB from 45 to 13,000 Hz, or ±3.5 dB from 45 to 20,000 Hz. There was a high-frequency peak of about +6 dB at 16,000 Hz. In the bass, the response maximum was at 90 Hz, and it fell off to −4 dB at 30 Hz.

Quasi-anechoic measurements with our INDAC FFT analysis system confirmed the general shape of the speaker’s live-room response curve, although it differed in detail from the room measurements (not being affected by the room boundaries). At a 1-meter distance the response was within ±1 dB from 200 to 5,000 Hz, dipping to a minimum at 6,000 Hz and rising to +6 dB at about 16,000 Hz. The bass distortion of the DM10 at a 1-watt input was under 2 per cent down to (Continued on page 48)
If all you want is everything...

1. The only cassette deck with all Dolby Noise Reduction functions: Dolby B, Dolby C, Dolby FM, and Dolby HX.
2. The only receiver with built-in dbx-II to decode disc/tape, or encode for recording.
3. The only cassette deck with a 400-15,000Hz sweep tone oscillator and a fixed frequency oscillator; with continuously variable record calibration and bias across the entire frequency spectrum, visually displayed. This permits adjustment to lab test-bench standards for any tape formulation.
4. The only cassette deck with a 4-kilobyte microprocessor controlling a full range of Compucounter™ functions.
5. Tape length is automatically determined and remaining time is digitally displayed.
7. Receiver amplifier power output: 90 watts per channel rms into 8 ohms. 100 watts per channel rms into 4 ohms; harmonic distortion: .02% 20-20,000 Hz.
8. A receiver with built-in synergistic timer display capable of controlling the entire system: Or it turns on the cassette deck and records FM or AM; "smart" sequencing, human-engineered to maximize the entire system. At a preprogrammed time it turns itself on and finds a cassette deck and records FM or AM; "smart" sequencing, human-engineered to make the most of your music collection.
9. Microchips interface the cassette deck with your television set or stereo system for bass, midrange, high frequency path indicator functions. The receiver is the master, the microchips are the slave. When the receiver is switched to total non-inverting, the microchips interface with the cassette deck for moving-coil phono cartridges. 16. 3 head/duo transport.
23. Quartz synthesized digital/tuning clock with auto-stop; 24-segment readout; channel indicator, filter, equalization switch. 37. Sendu purpose-built tape replay copy switch.

Need we say more? The VRX 9500 receiver. The VCX 800 cassette deck. $1000 each, U.S. suggested list.
The Empire ICS/400 is an integrated stereo cartridge designed to plug directly into the end of a tone arm having a universal four-pin bayonet mount. It is a physically redesigned version of the standard Empire 400TC cartridge, to which it is electrically identical. However, an appreciable mass reduction has been achieved by using a slim molded carbon-fiber shell and eliminating the mounting hardware. The ICS (Integrated Cartridge Series) version has a total mass of only 9.7 grams, compared to the 5.3 grams of the standard unmounted 400TC cartridge.

The ICS version is available in the other cartridges of Empire's Dynamic Interface Series, whose wide range of stylus characteristics make them usable in almost any type of record player. All of them use a three-magnet construction and have easily replaceable stylus assemblies with integral, hinged stylus guards. In the ICS format, the cartridge overhang can be adjusted over a 3.54-cm/sec reference groove velocity is 3.8 millivolts, and the recommended load is 47,000 ohms in parallel with 150 to 400 picofarads. The stylus is a 0.2 x 0.7-mil diamond on a tapered aluminum cantilever. Like the other Empire cartridges, the 400TC carries exceptionally complete performance specifications, covering distortion, channel separation, and tracking ability, among other factors. The frequency-response specification is 20 to 20,000 Hz ± 2 dB.

The low mass of the ICS/400 may make it impossible to balance a massive tone arm because of the large counterweight usually furnished with such an arm. For such a case, a small brass weight, designed to be mounted on the bayonet plug, is furnished with the cartridge.

**Laboratory Measurements.** We tested the Empire ICS/400 in the S-shaped tone arm of an integrated record player. The arm's effective mass without a cartridge was about 20 grams, and, as expected, it could not be balanced without adding the extra weight to the cartridge. Initially, the frequency response of the cartridge was measured with several values of load capacitance across the standard 47,000-ohm load resistance. Capacitance values as low as 60 picofarads (pF) gave a rising high-end output; this was flattened out nicely by using 300 pF. A 430-pF load gave the flattest response up to 10,000 Hz, but it rolled off above that frequency. We used 300 pF during our subsequent testing and operation of the cartridge.

The frequency response with the CBS STR 100 test record was flat within ±1 dB from 40 to 20,000 Hz. The channel levels, which averaged 4.3 millivolts, were matched within 0.5 dB. Channel separation was better than 20 dB up to 5,000 Hz, falling smoothly to 12 to 15 dB at 20,000 Hz. The 1,000-Hz square wave on the CBS STR 112 record was reproduced with a single cycle of ringing. The vertical stylus angle was 24 degrees. The frequency response and cross-talk characteristics of both channels were very closely matched.

Tracking distortion was measured with the Shure TTR-102 and TTR-103 test records. The intermodulation distortion (400 and 4,000 Hz) with the TTR-102 record was about 1 per cent (probably the record residual) up to a 17-cm/sec velocity, increasing rapidly to 8 per cent at 20 cm/sec and higher levels. With the maximum rated force of 2 grams, the distortion was unaffected up to 17 cm/sec but increased only gradually at higher levels to 4 per cent at 27 cm/sec. Unless otherwise stated, we used the 1.5-gram force throughout our tests of the cartridge. The 10.8-kHz tone-burst distortion with the TTR-103 record increased 4 dB/10 Hz.

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**Test Reports**

The rated output at a 3.54-cm/sec reference groove velocity is 3.8 millivolts, and the recommended load is 47,000 ohms in parallel with 150 to 400 picofarads. The stylus is a 0.2 x 0.7-mil diamond on a tapered aluminum cantilever. Like the other Empire cartridges, the 400TC carries exceptionally complete performance specifications, covering distortion, channel separation, and tracking ability, among other factors. The frequency-response specification is 20 to 20,000 Hz ± 2 dB.

The low mass of the ICS/400 may make it impossible to balance a massive tone arm because of the large counterweight usually furnished with such an arm. For such a case, a small brass weight, designed to be mounted on the bayonet plug, is furnished with the cartridge.

**Laboratory Measurements.** We tested the Empire ICS/400 in the S-shaped tone arm of an integrated record player. The arm's effective mass without a cartridge was about 20 grams, and, as expected, it could not be balanced without adding the extra weight to the cartridge. Initially, the frequency response of the cartridge was measured with several values of load capacitance across the standard 47,000-ohm load resistance. Capacitance values as low as 60 picofarads (pF) gave a rising high-end output; this was flattened out nicely by using 300 pF. A 430-pF load gave the flattest response up to 10,000 Hz, but it rolled off above that frequency. We used 300 pF during our subsequent testing and operation of the cartridge.

The frequency response with the CBS STR 100 test record was flat within ±1 dB from 40 to 20,000 Hz. The channel levels, which averaged 4.3 millivolts, were matched within 0.5 dB. Channel separation was better than 20 dB up to 5,000 Hz, falling smoothly to 12 to 15 dB at 20,000 Hz. The 1,000-Hz square wave on the CBS STR 112 record was reproduced with a single cycle of ringing. The vertical stylus angle was 24 degrees. The frequency response and cross-talk characteristics of both channels were very closely matched.

Tracking distortion was measured with the Shure TTR-102 and TTR-103 test records. The intermodulation distortion (400 and 4,000 Hz) with the TTR-102 record was about 1 per cent (probably the record residual) up to a 17-cm/sec velocity, increasing rapidly to 8 per cent at 20 cm/sec and higher levels. With the maximum rated force of 2 grams, the distortion was unaffected up to 17 cm/sec but increased only gradually at higher levels to 4 per cent at 27 cm/sec. Unless otherwise stated, we used the 1.5-gram force throughout our tests of the cartridge. The 10.8-kHz tone-burst distortion with the TTR-103 record increased 4 dB/10 Hz.

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**Empire ICS/400 Phono Cartridge**

- **Empire ICS/400 Phono Cartridge**
- **Tracking Force:** 0.75 to 2 grams
- **Price:** $110

The Empire ICS/400 is designed to track forces between 0.75 and 2 grams, with the recommended force being 1.25 grams. The rated output at a 3.54-cm/sec reference groove velocity is 3.8 millivolts, and the recommended load is 47,000 ohms in parallel with 150 to 400 picofarads. The stylus is a 0.2 x 0.7-mil diamond on a tapered aluminum cantilever. Like the other Empire cartridges, the 400TC carries exceptionally complete performance specifications, covering distortion, channel separation, and tracking ability, among other factors. The frequency-response specification is 20 to 20,000 Hz ± 2 dB.

The low mass of the ICS/400 may make it impossible to balance a massive tone arm because of the large counterweight usually furnished with such an arm. For such a case, a small brass weight, designed to be mounted on the bayonet plug, is furnished with the cartridge.

**Laboratory Measurements.** We tested the Empire ICS/400 in the S-shaped tone arm of an integrated record player. The arm's effective mass without a cartridge was about 20 grams, and, as expected, it could not be balanced without adding the extra weight to the cartridge. Initially, the frequency response of the cartridge was measured with several values of load capacitance across the standard 47,000-ohm load resistance. Capacitance values as low as 60 picofarads (pF) gave a rising high-end output; this was flattened out nicely by using 300 pF. A 430-pF load gave the flattest response up to 10,000 Hz, but it rolled off above that frequency. We used 300 pF during our subsequent testing and operation of the cartridge.

The frequency response with the CBS STR 100 test record was flat within ±1 dB from 40 to 20,000 Hz. The channel levels, which averaged 4.3 millivolts, were matched within 0.5 dB. Channel separation was better than 20 dB up to 5,000 Hz, falling smoothly to 12 to 15 dB at 20,000 Hz. The 1,000-Hz square wave on the CBS STR 112 record was reproduced with a single cycle of ringing. The vertical stylus angle was 24 degrees. The frequency response and cross-talk characteristics of both channels were very closely matched.

Tracking distortion was measured with the Shure TTR-102 and TTR-103 test records. The intermodulation distortion (400 and 4,000 Hz) with the TTR-102 record was about 1 per cent (probably the record residual) up to a 17-cm/sec velocity, increasing rapidly to 8 per cent at 20 cm/sec and higher levels. With the maximum rated force of 2 grams, the distortion was unaffected up to 17 cm/sec but increased only gradually at higher levels to 4 per cent at 27 cm/sec. Unless otherwise stated, we used the 1.5-gram force throughout our tests of the cartridge. The 10.8-kHz tone-burst distortion with the TTR-103 record increased 4 dB/10 Hz.

(Continued on page 50)
The Blaupunkt CR-2010. Richer, purer sound than you ever thought possible in a moving vehicle.

Autosound is only as good as the equipment it passes through. Which means that, in the case of the Blaupunkt CR-2010, the sound is exceptional.

The CR-2010 coddles and shapes highs and lows into a sound as full-bodied, as richly-textured, as anything you'll hear from a home stereo.

4 Channel Amplifier
Blaupunkt increased the conventional two channels to four, each with a maximum output of 7.5 watts. Even when hooked up to a front end, two-speaker system, the CR-2010's crisp reproduction will surprise you. Add two rear speakers and the home stereo effect is complete—sound that surges to new heights of clarity and richness while holding its delicate balance through the magic of a built-in front-to-rear fader.

Holds Signal Longer
Drive away from the signal source of your favorite stereo station and what happens? Reception breaks up into a barrage of crackles and hisses. Not with the CR-2010. Thanks to the "Soft MPX" feature your Blaupunkt automatically shifts reception from stereo to mono before the hissing sets in.

Higher Volume without Distortion
The CR-2010 has a pre-amp output jack that lets you bypass the built-in amp and plug directly into a high power amplifier. Yet the boost in volume doesn't come at the expense of distorted sound. And at lower volume the clarity is actually enhanced.

Of course, you get Dolby Noise Reduction—but for FM reception as well as tape. A Sendust Alloy tape head reproduces a fuller range of recorded frequencies.

Hear the Full Blaupunkt Line
The CR-2010 retails for only $396.00** and is the latest in a full line of Blaupunkt AM/FM stereo cassette radios priced from $290.00**

CR-2010 Features
- 4 channel (4 x 7.5W)
- Soft Mute
- Autoreverse Cassette
- Sendust Alloy Tape Head
- Auto Hi-Cut Filter
- Dolby Noise Reduction Circuit
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Broadview, IL 60153
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**Suggested US. retail prices. The Blue Dot and Blaupunkt are registered trademarks of Blaupunkt Werke GmbH.

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In the graph at left, the upper curve represents the frequency response of the cartridge. The distance (measured in decibels) between it and the lower curve represents the separation between the two channels (anything above 15 dB is adequate). The inset oscilloscope photo shows the cartridge’s response to a recorded 1,000-Hz square wave, which indicates resonances and overall frequency response (see text). At right is the cartridge’s response to the intermodulation-distortion (IM) and 10.8-KHz tone-burst test bands of the TTR-102 and TTR-103 test records. These high veloc-

ities provide a severe test of a phono cartridge’s performance. The intermodulation-distortion (IM) readings for any given cartridge can vary widely, depending on the particular IM test record used. The actual distortion figure measured is not as important as the maximum recorded-signal groove velocity that the phono cartridge is able to track before a sudden and radical increase in distortion takes place. There are very few commercial phonograph discs that embody musical audio signals whose average recorded groove velocities are much higher than about 15 centimeters per second.

from 0.7 per cent at 15 cm/sec to 1.4 per cent at 30 cm/sec.

In other tracking tests the cartridge was able to play the very high-level 32-Hz tones on one of our test records at 1.2 grams and the 30-cm/sec 1,000-Hz tone on another record at 1.5 grams. The 60-micrometer level of the German HiFi Institute record was played without distortion at 1.5 grams and the 80-micrometer level at 2 grams.

Comment. The Empire ICS/400 is a very flat-responding cartridge with a good output level and sufficient tracking ability to cope with almost any recorded material likely to be used. For extreme cases, an increase of force to 2 grams gives the cartridge a tracking ability close to that of the most refined cartridges we have tested.

In subjective listening tests with the Shure “Audio Obstacle Course” records the ICS/400 was able to play all sections of the ERA III and ERA IV records up to level 4 without audible distortion. There was some evidence of mistracking at the maximum level (5) of the bass drum on ERA III and of the flute and harp sections of ERA IV as well.

The low-frequency arm/cartridge resonance in the rather massive tone arm we used was at about 8 Hz (as indicated by the Shure ERA IV record). This represents a “worst-case” situation, since the arm alone was fairly massive and the cartridge had to be operated with its auxiliary weight to achieve balance. A less massive arm, or one with a lighter counterweight, might not have required the extra cartridge weight and probably would have resonated at a more desirable frequency (around 10 Hz). The finger lift, integral with the cartridge, was at the height of the center of the arm tube with very little clearance between the user’s finger and the record surface. Raising the lift about 1/4 inch would help.

It is ironic that low-mass integrated cartridges such as the Empire ICS series will usually be used with rather massive S-shaped or J-shaped tone arms that were designed for much more massive cartridges. Although the combination of a massive arm and a low-mass cartridge would seem to work out well, it doesn’t always because of arm-counterweight limitations. Adding extra weight to achieve balance unfortunately removes much of the advantage of the low-mass cartridge assembly. Still, the ease of installation of an integrated cartridge is undeniable and eliminates one of the most onerous of all the chores involved in setting up a hi-fi system.

As for the sound of the cartridge, it was as neutral as the measurements would indicate. There are cartridges, including others in the Empire line, that can track higher levels and operate at lower forces, but they are more expensive and delicate and in many cases would be difficult to distinguish from this one by their sound alone.

—Julian D. Hirsch

Circle 143 on reader service card

(Continued on page 52)
"The truth is, I would speak for the quality of Smirnoff anytime. Its value speaks for itself."

E LEE BAILEY, trial lawyer.

"Everyone admitted to the bar at my house, always gets Smirnoff. And no one ever raises an objection.

"Some might argue that Smirnoff vodka costs more. I'll concede that. But consider this... for just a little more than you pay for ordinary vodkas, you can have the great quality of Smirnoff.

"Faced with evidence like this you can reach just one conclusion. Smirnoff is simply the best value in vodka. I rest my case."

There's vodka, and then there's Smirnoff.
Micro Seiki MB-38 Turntable

- **Micro Seiki MB-38 Turntable**
- **Size:** 18 x 13 x 5 1/2 inches
- **Weight:** 15 1/2 pounds
- **Price:** $469.99

The MB-38 is the first fully automatic, belt-driven turntable from Micro Seiki. The full-size, cast nonferrous platter, which weighs 2 pounds including its rubber mat, is driven by a light rubber belt around an inner drive rim that is smaller in diameter than the platter itself. The motor speed is electronically controlled for 33 1/3- and 45-rpm operation. Stroboscope markings are cast into the outside of the rim for both speeds and for power-line frequencies of 50 and 60 Hz, and they are illuminated from below the motorboard by a neon lamp-prism arrangement.

A separate motor controls the tone arm (for cueing, arm lift and descent, automatic indexing at the beginning of a record, and automatic shutdown after play). According to Micro Seiki, the MB-38 also features what they call an "exclusive oil bath bearing system," presumably for the platter bearing. The tone arm is a low-mass straight tube whose offset cartridge mount can be removed by loosening a thumbscrew. A plastic jig aids in setting the cartridge position for minimum tracking error. The threaded counterweight carries the usual tracking-force scale, and an antiskating dial, arm-lift lever, and locking arm rest are on the arm base.

The MB-38 is furnished on a rosewood-finish wooden base with a hinged clear-plastic cover. The entire unit is supported on four softly sprung feet. The principal operating controls (everything except the arm-lift lever) are on the front of the base, where they are accessible with the cover lowered. The power switch is at the left, near a small speed knob that gives a vernier speed adjustment. Four slender, flat pushbutton switches along the front top edge of the base set the arm indexing diameter for either 12- or 7-inch records, select the operating speed, engage the auto-repeat function, and initiate the START or REJECT cycles.

Normally the START/REJECT button is the only operating control. A light touch on it starts the record turning, moves the arm over the lead-in groove, and lowers it gently to the playing surface. After play, the arm rises and returns to its rest, and the motor shuts off. Full manual control of the arm is also possible. Red LEDs on the control buttons show their status at all times.

Laboratory Measurements. We operated and tested the Micro Seiki MB-38 with an AKG P25MD cartridge installed in its arm. Using the supplied mounting jig for the cartridge installation, we measured a maximum tracking error of 0.25 degree per inch for radii between 2 1/2 and 6 inches. The actual vertical force was within 0.05 gram of the indicated value between 0.5 and 2.5 grams after an unaided visual balance of the arm. When we reset the counterweight for exact reading at 1 gram it was equally exact at other force settings.

The effective arm mass (less cartridge) was a low 11 grams, and the combination resonated in the near-ideal range of 10 to 12 Hz. Apparently there was little damping in

"...Please excuse this interruption in our broadcast of Janáček's Sinfonietta, but I just wanted to tell you that this part they're going to play now is the part I like."
Two new ways to play it...

New Kool Lights
There's only one low 'tar' with a sensation this refreshing. Kool Lights. The taste doesn't miss a beat.

New Kool Ultra
One ultra has taste that outplays them all. New Kool Ultra. Even at 2 mg., you get the refreshing sensation of Kool.

Ultra Kings, 2 mg. "tar", 0.3 mg. nicotine, Lights, 9 mg. "tar", 0.8 mg. nicotine av. per cigarette by FTC method.

WHAT TYPE ARE YOU?

Power has its price. Unfortunately, with many receivers, you usually end up paying for a lot of power you may not necessarily need in order to get the computerized features you want.

At Kenwood, we don’t think that’s playing fair. Which is why every one of our new Hi-Speedm receivers offers a host of very intelligent engineering advances.

Like Direct Coupled, Hi-Speed amplifier circuitry for absolutely brilliant musical clarity, down to 0Hz.

And microprocessor controlled Quartz PLL Synthesizer tuning to give you perfect, drift-free FM reception.

We’ve even included the convenience of our computerized AutoScan tuning. And instant, automatic computer-memory tuning of 6 AM and 6 of your favorite FM stations.

But best of all, we didn’t restrict all this intelligence to just our new KR-850 Hi-Speed receiver.

You can also find it on our new KR-830.

And our new KR-820.

And even our new Slimline KR-90.

Examine all the possibilities at your Kenwood dealer. With all the choices we offer, you’ll find the computerized receiver that’s exactly your type.

At your type of price.

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Micro Seiki

MB-38 Turntable

(Continued from page 52)

either the arm or the cartridge, since the amplitude of the arm movement at resonance (with the Shure ERA IV record) was very large. The capacitance of the tone-arm and signal-cable wiring was 143 picofarads from each channel to ground and 8 picofarads between channels. The arm cueing was good (free of drift) if the lifter lever was handled carefully and if the antiskating dial was not set higher than the vertical tracking force. The arm tended to bounce and shift its lateral position when raised rapidly with the cueing lever. The calibration of the antiskating system was good, giving approximately correct skating compensation when the dial was set to match the applied tracking force.

The automatic operating cycles of the MB-38 were relatively rapid, with 6.5 seconds elapsing between START and the beginning of play and 6 seconds from the end of play to the shutdown of the player. The vernier speed control had a range of +4, -6 per cent and required a slight readjustment when switching from one speed to the other. The turntable rumble was -34 dB unweighted and -55 dB with ARLL weighting. The rumble was mostly in the range of 5 to 25 Hz, with smaller peaks at 40, 60, and 70 Hz. The flutter was ±0.1 per cent weighted peak (DIN) and 0.08 per cent weighted rms (JIS), with most of the flutter being at rates under 10 Hz; there were smaller components at 15 to 20 Hz.

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The acoustic isolation of the base appeared to be quite good. However, recent changes in our test equipment prevent us from making a close quantitative comparison between the base transmission of the MB-38 and turntables tested previously. We did note that its major acoustic/mechanical sensitivity was between 20 and 30 Hz, with narrow lower-level responses at 80, 300, and 1,200 Hz.

Comment. Although the Micro Seiki MB-38 is a very good record player with no significant faults, for its level of performance it is also rather expensive. One of its best features is the low-mass tone arm, whose geometry seems to have been optimized for minimum lateral-tracking-error distortion and whose other calibrated parameters of vertical tracking force and antiskating compensation are also as nearly ideal as our measurements can determine.

The operation of the MB-38 is simple and foolproof, although we would have preferred to be able to turn on the turntable (say, by lifting the arm, as on many other units) and cue the arm manually from the start instead of having to go through the automatic cycle. We usually avoid subjective styling judgments, but we must admit that this is a handsome piece of equipment. It presents a more "furniture-like" appearance than most of the more clinically styled record players from other manufacturers.

—Julian D. Hirsch

Circle 144 on reader service card

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

But hearing is believing. And while we can't play our newest tape for you right here on this page, we can replay the comments of Audio Video Magazine. "Those who thought it was impossible to improve on Maxell's UD-XL II were mistaken. The 1981 tape of the year award goes to Maxell XL II-S."

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

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

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

We think you'll find it a small price to pay for higher performance.
THE PROMISE FULFILLED.
Ever since their invention in the mid 60's, cassette decks have held out the promise of quality sound reproduction, combined with true convenience. Convenience has been achieved, to one degree or another. But no cassette deck has ever succeeded in accurately delivering the wide dynamic range associated with the live performance. Until now.

BANG & OLUFSEN HX PROFESSIONAL*: THE FIRST SIGNIFICANT IMPROVEMENT IN CASSETTE PERFORMANCE SINCE THE INVENTION OF DOLBY. (DOLBY LABS AGREES.)
In 1978, Bang & Olufsen began exploring technologies which could complement noise reduction systems by offering significant headroom expansion.

The result of these explorations is Bang & Olufsen HX Professional (not to be confused with Dolby HX**), pioneered by Bang & Olufsen of Denmark and perfected in collaboration with Dolby Laboratories.
Utilizing an automatically regulated variable bias oscillator to compensate for the bias effects of high frequency signals, Bang & Olufsen HX Professional offers the discriminating audiophile a cassette deck that, for the first time, truly achieves disc-quality sound reproduction.
Overall dynamic range is increased by up to 10 dB. Definition of bass frequencies is audibly superior. Frequency response with any type of tape is ±1.5 dB from 20 to 20,000 Hz, with a S/N ratio of up to 80 dB. The ability of any kind of tape to record and play back higher levels of mid-range and high frequency signals is increased significantly.
Bang & Olufsen HX Professional operates independently on each channel, allowing optimum compensation for the particular signal content of each channel. And since Bang & Olufsen HX Professional is not an encoding system, tapes recorded on it will sound better, even when played on other cassette decks.

OPTIMUM CALIBRATION, FOR EVERY INDIVIDUAL TAPE. IN JUST 9 SECONDS.
The second major advance that is unique in the Beocord 9000 is a computerized tape calibration system that performs all tape calibration functions, completely automatically, in just 9 seconds. You simply insert a cassette, and push the Tape Calibration button. The Beocord 9000 proceeds to record a test tone on the

*HX Professional is exclusively available on the Beocord 9000 and Beocord 8002 cassette recorders. **TM Dolby Labs, Inc.
cassette, and sets the appropriate bias, sensitivity, and equalization. It also actually reads the tape itself to determine what type it is and indicates the tape type via LED.

In the calibration process, the Beocord 9000 also measures distortion and sets its recording levels and meters according to the characteristics of the particular tape you are using. This exclusive Peak Program Meter function assures you of recordings free of audible distortion, with any tape you use. The specifications on types of cassettes you use frequently can be placed in memory and recalled instantly, making future calibration unnecessary.

IN EVERY OTHER RESPECT, MERELY STATE-OF-THE-ART. There is not space here, to go into further detail on the many other capabilities of the Beocord 9000.

It of course includes Dolby B and C, and all of the functions, such as LED real-time tape counter with real-time tape remaining, random access programming, automatic return, and programmable timer, that you would expect in a state-of-the-art deck.

You will only find them unexpectedly simple to use.

WRITE FOR THE WORDS. AND THE MUSIC. As much as we've said here, there is a great deal more to be said for the Beocord 9000. And we've said it in a white paper which we will gladly send you, at no cost whatsoever. It will allow you to absorb, at your leisure, the remarkable capabilities of this unique machine.

We have also prepared a cassette of music recorded on the Beocord 9000. Played on any cassette deck of reasonable quality, it will allow you to immediately appreciate the accuracy of music recorded with Bang & Olufsen HX Professional. If you send us $3.00 to cover handling costs, we will send you the cassette, and the white paper. Please allow 4 to 6 weeks for delivery. Offer expires June 30, 1982. Please address requests to Dept. SR.

Bang & Olufsen of America
515 Busse Road
Elk Grove Village, IL 60007

Bang & Olufsen
of Denmark

CIRCLE NO. 4 ON READER SERVICE CARD
Going on Record

By James Goodfriend

Sad Songs

There is not much point in writing a formal review of an assortment of bad records by eminent sopranos, but the almost simultaneous appearance of several of them is striking enough that one ought to say something about them. It is no secret any more that the (theoretical) aesthetic purpose of the phonograph record—the preservation of outstanding performances of great music—has long since been superseded by something far more ephemeral. Nonetheless, one still has to ponder about the release of recordings that can bring little credit to anyone associated with them and that are bound to disappoint anyone unlucky enough to have purchased them. Such records are not confined to sopranos, of course; the number of bad records of every type is increasing. But, for reasons largely of coincidence, I have heard a number of recordings by sopranos recently, and they, therefore, are the ones who are about to get it in the neck.

If one divided the population of lieder singers into those who sing the words and those who sing the notes, Kiri Te Kanawa would certainly be among the latter. It is not just that her diction is poor on her new record of German, French, and English songs (CBS 36667)—there are consonants, but it is often difficult to determine which particular ones she has in mind—but that no word seems to have any special significance, emphasis, or inflection. She has a lovely voice, it's true, and her operatic accomplishments are well known; but here, in addition to sounds that are disembodied and innocent of meaning, there are moments of inaccurate intonation, others of strain, and an occasional swoop. Te Kanawa's lovely face looks out at us impassively from the album cover, which also says that texts are enclosed; they weren't in my copy.

Regine Crespin is another ordinarily admirable soprano with some exquisite records to her credit, and her singing of Ravel's Histoires Naturelles on side one of CBS 36666 must also go on the plus side of the balance. The voice is not as beautiful as it once was, but it is still beautiful enough, and musical intelligence illuminates the interpretation, aided not a little by Philippe Entremont's pianism. But the other side of the record is something else. Erik Satie remains a somewhat enigmatic figure in music, but not all of his music is necessarily enigmatic. He worked for a time as a café pianist and he wrote café songs—not enigmatic café songs, just café songs. He also wrote "serious" art songs that are every bit as odd and quirky as the oddest of his piano works. Crespin has chosen to sing both here, and someone has decided to alternate them, giving us the aural equivalent of a series of martinis and melted milks. In addition, while Crespin makes a reasonable stab at the art songs (they really demand a more "impassive" voice, the vocal equivalent of deadpan), she goes at the little fin-de-siecle waltzes and novelty songs like an aging Brünnhilde. CBS furnishes all the texts in French only (what do you mean, you don't read French?).
THE ONLY THING MORE REVOLUTIONARY THAN AKAI'S NEW GX-77 IS THE TAPE IT PLAYS.

The new GX-77 is the world's first open-reel machine with a special setting for the new ultra-high-density "EE" tapes.

For the uninitiated, "EE" simply stands for extra efficiency. And the innovators at both Maxwell and TDK are committed to it.

For some very sound reasons Numbers don't lie.

And what the numbers are saying is this. You don't have to sacrifice performance for economy. Not with a GX-77 and "EE" tape. Because at an efficient 3½ ips, you'll still get the same frequency response, S/N ratio and dynamic range of conventional tape played at 7½ ips.

But see for yourself below. The specs are spectacular at any speed.

There's sound engineering, too.

The GX-77 also features quick-reverse playback/record, 3 motors, 4 AKAI GX heads and an optional dustcover that's the ultimate cover-up.

Plus a unique, motorized tape-loading mechanism that guarantees virtually perfect tape-to-head alignment. All at the touch of a button.

And all for a relatively modest $775. suggested retail price.

Or, if you prefer the benefits of "EE" tape on a grander scale (including 10½" reels), consider the new AKAI GX-747.

Better yet, audition both at your AKAI dealer's soon. Or write: AKAI, P.O. Box 6010, Compton CA 90224.

We'd hate to start the revolution without you.

<table>
<thead>
<tr>
<th>AKAI GX-77 with:</th>
<th>Dynamic Range</th>
<th>Frequency Response</th>
<th>S/N Ratio</th>
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<tr>
<td>EE Tape (3½ ips)</td>
<td>76 dB</td>
<td>25-25000 Hz</td>
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<tr>
<td>Conventional Tape (7½ ips)</td>
<td>76 dB</td>
<td>25-25000 Hz</td>
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<tr>
<td>EE Tape (7½ ips)</td>
<td>76 dB</td>
<td>25-33000 Hz</td>
<td>53 dB</td>
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AKAI
YOU NEVER HEARD IT SO GOOD
Ralph Hodges takes a look at some evolutionary and revolutionary advances in tape technology

If they ever stop to think about it at all, tape buffs probably do not sufficiently appreciate the fact that the rapid progress in tape-machine performance over the past couple of decades has been matched, innovation for innovation, by advances in tape manufacturing and formulation. New developments in audio tape have particularly benefited of late from useful discoveries made in the fields of video and computer tape, with the result that we are once again looking at a "new generation" of high-performance audio tapes that will begin to reach the market within the next few months.

The first of this new wave of tapes to appear will lay emphasis on recording objectives that have not previously been paramount in tape designs. The second wave should bring some new magnetic materials, some older ones in new forms, and the advent of multi-application tapes. At least one manufacturer plans to introduce a cassette that will handle analog and digital (PCM) audio with equal aplomb. Another expects to produce a tape that will accommodate analog, digital—and video to boot! The common sense of this is quite plain when you realize that all video tapes will likely have two tracks of audio, and sooner or later these will be very high-quality tracks indeed.

Wrenching secrets from tape manufacturers is only a little less difficult than, say, discovering the full nuclear potential of the Soviet Union. The industry is notoriously competitive, and if some advance information should accidentally happen to leak out the door on Friday, it could mean mass executions by Monday. Still, by reading between the lines of press releases and paying as much attention to what manufacturers won't talk about as to what they will, it's possible to get some idea of what the future holds.

A tape can be divided into three parts: backing (or base), binder, and magnetic material. (There is also an optional fourth part, a back-coating, that some manufacturers favor, some don't, and some change their minds about from time to time.) All three parts are critical, and all three are candidates for improvement.

**Backings**

The backing, a clear base film of tensilized polyester, would probably be the least problematic of the three if so many manufacturers didn't have to get it from outside suppliers. Surface irregularities in the backing material can cause coating-thickness variations in the finished tape, and such thickness variations are a principal mechanism in the
production of modulation noise, no matter how well controlled the total thickness of the backing-plus-coating may be. One manufacturer reports that he was unable to convince his supplier of this problem until he embarked on the production of a very tricky video formulation and the final tape didn't work. Clearly, backings will have to advance to a higher standard of uniformity for the proposed new tapes, but it's unlikely that you will hear much about the heroic efforts that will be required to accomplish this.

On the other hand, there are excellent reasons why a backing should not be perfectly smooth and uniform. A texturized backing gives the capstan and pinch-roller a better grip on the tape and combats what is generally referred to as "slippage." According to one company's view, a good backing is not so smooth as to be slippery and not so rough as to prevent a good recording. Black-coatings, which are sometimes applied to the nonmagnetic side of the tape in the final production stages, can provide texturizing without interfering with the properties of the backing itself, and at the same time they create a scratch-resistant surface to prevent polyester debris from fouling the recording system.

Magnetic Materials

The crystalline forms that magnetic tape particles assume are not found in nature but are synthesized through the control of temperature, pressure, pH values, catalysts, and the timing of the crystal-growth cycle. From the first, the goals for magnetic particles in recording tape have been the same: a "clean," needle-like shape free of pits or branches ("dendrites"), appropriate size, and uniformity from particle to particle. In recent years, particle size has been getting smaller and smaller, and the premium tapes appearing now are typically endowed with "needles" one-quarter the size of their predecessors. Coercivity, which affects high-frequency performance at slow recording speeds, is enhanced by small particle size, but the general feeling in the industry is that with metal tape we have achieved as much coercivity as we need. The new emphasis is on what smallness, uniformity, and cleanliness can do to improve the packing density of magnetic material in the tape coating, which will lead to increased remanence and better performance at the longer wavelengths (lower frequencies).

The chemical composition of the various tape particles we'll be offered should lead to some interesting competitive skirmishes. Maxell and TDK want to pursue, respectively, their Epitaxial and Super Avilyn materials, both of which are ferric oxides sufficiently refined (by cobalt-adsorption processes) to accomplish "almost anything," in the words of a TDK spokesman. Fuji seems bent on pursuing the technology of pure metal. BASF remains committed to chromium dioxide for its premium products and believes that it has superior characteristics for digital (PCM) recording as well as video. And Sony recently introduced an IEC Type II ("high bias") cassette employing a very small iron-oxide particle with a coating scheme said to afford exceptional remanence and squareness ratio. The company is carefully keeping up its involvement with many other materials, however, even to the point of using them in dual-coated products such as ferri-chrome. Most major manufacturers promise flexibility and further research in new materials, and mixtures of materials seem a likely possibility in the near future. As for vapor-deposited pure-metal coatings (pioneered in Matsushita's Angrom microcassette), there are some doubts as to the technique's capabilities for longer-wavelength recording as well as some hopes for its potentially superior remanence, especially if appropriate metallic alloys are used.

Binders

Binders are simply glues, mixed with solvents and other additives. Ideally they should start out by holding the magnetic particles in a perfectly dispersed suspension during the coating process and end up by bonding the particles to the backing in a very permanent way. On the way from liquid to solid to fully cured solid, a binder system should be fluid enough to permit free rotation of the magnetic particles as they are oriented in the intended recording direction, then manageable enough to respond well to the calendaring and polishing processes, then soft enough to permit slitting of the tape into its final widths without crumbling at the edges, and, finally, hard enough to resist scratching and flaking when the tape is used. Binder systems are constantly being tested and changed. Some manufacturers stick faithfully to binder systems whose changes of state are timed to the production cycle. Others are willing to interrupt the production process in midstream to let the tape sit and "cure" its way into the next desired state.

Quizzing a tape manufacturer on what's new in binder systems is something like asking a medieval alchemist to describe his technique for transmuting lead into gold: the best you can expect is to receive no misinformation. Chemical analysis of the final tape doesn't help very much because so much of the binder brew goes up in volatile fumes during tape production (it will also go up in flames if the maker is not exceedingly careful). Still, together with the crystal-formation techniques for making the magnetic particles, the chemistry and technology of binder systems have been keys to the fine tapes of today and will be the starting point for the superior tapes of tomorrow.

"The second wave should bring some new magnetic materials, some older ones in new forms, and multi-application tapes."
the tape surface in an arc; since more particles will be aligned with the flux, the tape will be capable of greater energy storage. (The particles are reported to be very short, by the way—about 0.1 micrometer.)

In general, the industry is moving toward what it terms a “balanced” cassette tape, adequate in high-frequency performance to match the capabilities of current cassette recorders and augmented at lower frequencies to deal with the noise and dynamic-range limitations of previous machines. Most manufacturers plan to increase the performance of their cassette tapes so that this year’s medium-quality tapes will be just about equal to last year’s premium tapes, and the premium tapes will be one step better than before. These improvements will be achieved through developments that are described as incremental rather than revolutionary. More and more, the key ingredients of non-premium cassettes come from outside suppliers who have pulled their standards up to acceptable levels.

The Future of Open Reel

It is the intention of four companies—Maxell and TDK on the tape end, Akai and Teac on the hardware end—to establish a new standard for consumer open-reel recording. BASF is also expected to cooperate in this venture. According to joint statements by these companies, the new EE (“Extra Efficiency”) standard is destined to “take over” the home open-reel tape market.

The impetus behind the EE innovation is a desire to apply technology gained in cassette development to the open-reel format. The motivation comes from market studies, one of which found that production of open-reel tape decks in Japan exceeds 200,000 a year and is holding steady. This is a market large enough to be attractive, yet small enough to be manipulated. The EE innovation is expected to encourage market growth to some degree, but, more important, it might compel open-reel devotees to abandon their current equipment for new and improved models.

New open-reel models are needed to handle the EE tapes, which resemble the high-coercivity, high-remanence cassette formulations more closely than anything that has been seen in open-reel heretofore. They require higher bias and, concurrently, some changes in equalization if they are to perform at their best. That best should yield improvements comparable to what cassettes have demonstrated in recent years: lower noise, higher output levels and sensitivities at all frequencies, and greater consistency of performance. Again, these gains are evolutionary.

Other Developments

Dual-layer products are going to continue to be available in the tape repertoire, even though one manufacturer preceded his comments on them with a few unprintable adjectives. The real problem, as he has experienced it, has to do with the transition point between the coating layers. Making the two layers similar in magnetic properties smooths the transition, but it throws away the advantages of going to two layers in the first place. Making the layers dissimilar (the outer layer strongly favoring highs, the inner one favoring lows) exploits the technology to its fullest but it runs risks in the mid-range that can upset noise-reduction tracking and inter-machine compatibility even if the average listener does not notice obvious impairment of frequency response.

Vapor-deposition metal tape, although attractive as an idea, is not universally attractive in practice. Some companies are pursuing it avidly; others are going to wait and see. The majority view is that vapor deposition is going to be of great benefit for the very short wavelengths employed in data processing and video, even though the resultant coating appears, at the moment, to be too fragile.

The word from Japan is that microcassettes are going to sweep the market for automotive and portable uses. Certainly they will have an impact, reinforced by new recording techniques and new noise-reduction systems such as B&O’s HX Professional. And the next generation of microcassettes (as well as the players they will be employed in) promises to be superb.

All of which leaves me in something of a quandary about the final justification for multi-application tape formats. They will provide convenience to the consumer (any tape on hand can do the job he needs done) and a certain amount of the same to the manufacturer (any tape he produces can be sold for any application), but will they be the best possible for each individual application? Analog audio, requiring excellent performance at both short and long wavelengths, calls for some fairly sophisticated tape design. Whether it will still show up at its best in multi-application tapes remains a question. Perhaps the answer lies in a house joke popular at 3M: one day packing density will have become so great that the tape will be able to record and play without having to move at all! That will surely spell the end of magnetic recording as we know it, inspiring tape manufacturers to move on to the next thing.
I don't know anyone who doesn't like a bargain, and that probably explains why tape manufacturers make second- and even third-line cassettes designed to sell for significantly less than their premium-price formulations. Are these less expensive cassettes really "almost as good," as salespeople readily assure prospective buyers, or are they fit only for such undemanding applications as speech recording and the like?

To shed a little light on this question I tested a number of samples of modestly priced cassettes using the very same procedures I would use for top-of-the-line products. The tests are standard, and no attempt was made to examine a large number of samples of any one cassette or even to cover more than a reasonable number of the available products. I used a single very high-quality tape deck (the Nakamichi LX-5, to be reported on in the April issue) whose head characteristics and bias/equalization adjustments would probably bring out the best performance of which a given cassette is capable.

In addition to the less expensive lines of reputable tape manufacturers, there are two other kinds of tape "bargains." The first is off-brand products, which are sometimes available at discount stores for less than a dollar each. Years ago, when open-reel was the dominant format, we called such wares "white box" tape. The "Nippon" and "Tempest" tapes whose responses are reported in the graphs and the accompanying table are examples of this sort of thing in the cassette genre, and the performance speaks for itself.

The second kind of bargain tape is more sinister: out-and-out counterfeits of reputable products from such manufacturers as Maxell, Sony, and TDK. TDK was kind enough to supply unopened samples of some lookalike counterfeits of their products that would certainly pass for genuine visually. In performance, however, they were among the worst I have ever measured. How can a buyer tell they're counterfeit without testing? In this case by looking for the words "TDK FULL LIFE TIME WARRANTY" visible through the cellophane wrapper on the back of the genuine article.

Happily, there are some genuine bargains to be had if your recording job...
doesn't require the very highest level of performance. Most brand-to-brand performance variations among premium formulations have narrowed in recent years, and frequently what manufacturers once sold as top-of-the-line products now continue as their second or third line. Conversely, formulations that were originally intended to be "economy" tapes have frequently been upgraded. For the purposes of this limited survey I picked a group of C-90 ferric-oxide cassettes, all of which have list prices under $5 and most of which actually sell for much less.

How the Tapes Were Tested

The Nakamichi LX-5 recorder used for these tests was checked for playback response (31.5 Hz to 18 kHz) with a new IEC-standard BASF calibrated test tape, and its output was adjusted to produce a 0-dB record-playback output with the Nakamichi EX-II tape; variations in the other cassettes' sensitivity are noted in the accompanying table. Variations in sensitivity of more than ±2 dB are important principally because they may affect frequency response when a noise-reduction system is used.

The input level of the 315-Hz signal was then raised or lowered, as appropriate, to produce a 0-dB output (Dolby-level) from each cassette, and frequency-response measurements were made across the entire 20- to 20,000-Hz audio spectrum both at the 0-dB level (where there is invariably some high-frequency loss with cassettes) and at the -20-dB level (where frequency response should ideally be flat). These curves (from 1,000 Hz up) are shown in the graphs with (where possible) a company's higher-price product displayed with its lower-cost formulations.

No less important than frequency response is the signal-to-noise ratio of a tape. This was measured by increasing the 315-Hz input level until the third-harmonic distortion in the output reached 3 per cent (the "signal"), short-circuiting the output of the audio generator while continuing to record, and then measuring the recorded "noise" through a standard IEC A-weighting filter (which closely approximates the sensitivity of the ear to tape hiss). This was done without using a noise-reduction system.

While almost every tape has some safety margin ("+" reading in the table) between a Dolby-level output at 315 Hz and the onset of severe distortion (the 3 per cent point), no cassettes can handle this level at the highest audio frequencies. The final test, therefore, was of the maximum output level each cassette could produce (with this machine and its factory-adjusted bias/equalization setting) at 10 kHz. While all the numbers in this column of the table are negative, the closer the figure is to 0 dB the better.

What do the numbers in the table and the traces in the graphs really show? Besides sounding a clear warning to avoid unbranded (and counterfeit) products, they demonstrate that most companies' second-line tapes compare extremely well with their premium product, usually suffering only a slight loss in signal-to-noise ratio and in high-
frequency overload capability. Further, the results tend to illustrate how hard won are the advances in tape technology. In fact, the state of the art is now so far advanced that improvements of more than a decibel or so are accounted "revolutionary" even if their audible effect is minimal at best. In tapes at the very bottom of a company's line, however, the compromises are necessarily greater, sufficiently so in my estimation to suggest that music recorded on them will usually be audibly affected.

In the end, of course, "you pays your money and you takes your choice." I find that the sensible solution is to use the premium formulations for very critical music recordings for your home system and the second- and third-line tapes for everything else. If you wonder whether a less-than-premium tape will achieve the level of performance you want on your particular machine, the best advice I can give you is to try it and see. In any case, this brief study demonstrates that there's nothing wrong with an economy product if it comes from a name-brand manufacturer. But stay away from the unknowns; there's good reason for their anonymity.

<table>
<thead>
<tr>
<th>Brand and Type</th>
<th>315-Hz sensitivity</th>
<th>3 per cent third-harmonic distortion</th>
<th>A-weighted S/N</th>
<th>10-kHz saturation</th>
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<tr>
<td>BASF Professional I</td>
<td>0.0</td>
<td>+4.7</td>
<td>56.8</td>
<td>-4.7</td>
</tr>
<tr>
<td>BASF Performance</td>
<td>-0.2</td>
<td>+4.6</td>
<td>56.7</td>
<td>-5.3</td>
</tr>
<tr>
<td>Fuji FX-I</td>
<td>-0.6</td>
<td>+4.0</td>
<td>58.3</td>
<td>-5.8</td>
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<tr>
<td>Fuji FL</td>
<td>-1.2</td>
<td>+1.6</td>
<td>53.6</td>
<td>-9.2</td>
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<tr>
<td>Maxell XLI-S</td>
<td>+0.5</td>
<td>+5.7</td>
<td>57.5</td>
<td>-2.1</td>
</tr>
<tr>
<td>Maxell UD XL-I</td>
<td>+0.3</td>
<td>+5.1</td>
<td>56.8</td>
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</tr>
<tr>
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<tr>
<td>Maxell LN</td>
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<tr>
<td>Memorex MRX I</td>
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<td>+4.4</td>
<td>57.3</td>
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<tr>
<td>Realistic Supertape Gold</td>
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<td>+4.1</td>
<td>57.0</td>
<td>-8.0</td>
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<tr>
<td>Sony SHF</td>
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<td>+5.0</td>
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<tr>
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<td>+3.8</td>
<td>55.9</td>
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<tr>
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<tr>
<td>TDK D</td>
<td>-1.0</td>
<td>+3.4</td>
<td>56.1</td>
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<tr>
<td>3M Master I</td>
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<td>+6.0</td>
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<tr>
<td>3M Dynarange</td>
<td>-0.25</td>
<td>+4.6</td>
<td>56.8</td>
<td>-4.8</td>
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<tr>
<td>3M Highlander</td>
<td>-1.0</td>
<td>+1.6</td>
<td>56.1</td>
<td>-10.4</td>
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<tr>
<td>&quot;Nippon&quot; (C-60)</td>
<td>-4.8</td>
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<tr>
<td>&quot;Tempest&quot;</td>
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<tr>
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<td>-0.7</td>
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TAPPING and the LAW

The recent appellate court reversal of an earlier decision in the Betamax Case demonstrates that the question of equity in home taping, whether video or audio, is far from settled.

By Gary Stock
If you’re looking for a profitable business with affluent customers and a shot at national recognition, you might consider becoming a copyright lawyer specializing in the electronic media. While the technology of recording and replaying entertainment and news has advanced rapidly over the past thirty years, the laws that dictate its proper use have lagged well behind. As a result, most precedent-setting copyright-law decisions come only after extended court cases with multiple appeals; precedents become law only after much money and publicity have brought the issues to the attention of legislators.

What has come to be known as the “Betamax Case” is a good example. A lawsuit was filed in 1976 by Universal Studios and Walt Disney against Sony Corporation (manufacturer of Betamax videocassette recorders), some of Sony’s distributors and retailers, and a Betamax owner, one William Griffiths. The Betamax Case concerns itself with the most troubling questions of the home video revolution. Who controls the rights to a work of entertainment once it is broadcast? How does a developer of entertainment programs make a steady living from his or her work? And to what extent should private corporations using public property—the airwaves—to disseminate their wares be allowed to influence what citizens do with broadcasts in their own homes?

The Video Boom

No one firm did more to initiate the home video era than Sony. The company prides itself on being one of Japan’s most prolific electronic innovators in everything from portable office equipment to the Walkman cassette player. Despite its relatively modest size, Sony has traditionally (and successfully) competed in new electronics markets with such immense corporate behemoths as Matsushita and Hitachi. Between 1965 and 1975, Sony and a handful of other firms experimented with offerings of unwieldy, expensive, and difficult-to-use open-reel home video equipment that appealed primarily to video artists and local television stations. Then, in early 1975, Sony took the lessons of that decade and beat its competitors to the punch with one of the video revolution’s most seminal products: an affordable, easy-to-use home videocassette recorder called the Betamax. And the video era was born.

Although it was not intentional, Betamax represented a challenge to the traditional entertainment distribution systems of the big television and movie organizations. The movie studios had survived the breakup of the studio-theater monopolies in the Thirties and the growth of network television in the Fifties. But control of their product—the entertainment programs themselves—had always been in their hands. Betamax took that control from the entertainment industry and placed it in the hands of the American consumer. The video-recorder owner could rearrange television schedules at will, tape and replay programs hundreds of times over, trade or loan portions of a “video library” to friends, and purchase all sorts of alternative entertainment outright. Indirectly, the Betamax also opened the door to a boom in the sale of “bootleg” or illicit copies of feature films and television programs because it provided for the first time a large outlet for them.

The Studios React

The reaction to this situation by the entertainment industry—as represented by two of its best-known members, Universal and Disney—was not surprising. In 1976 they sued Sony and its co-defendants on the basis of copyright infringement, noting that Sony had marketed and advertised Betamax recorders specifically for recording television programs. The real but largely unstated issue was money, specifically whether the entertainment industry was entitled to a slice of the video breadloaf because its wares were the ones being taped.

Three years brought a decision: in 1979, district court Judge Warren J. Ferguson handed down a lengthy and precisely worded decision that seemed to dismiss Universal’s and Disney’s claims conclusively. Ferguson based his decision on three concepts. First, that the exemption Congress had extended in 1971 to exclude home audio taping from the copyright provisions was applicable to home video taping as well. Second, that making videotapes at home fell into a copyright-law doctrine called Fair Use, which permits copying of many copyrighted materials if their commercial value is not reduced by the copying. (Ferguson noted here that the television networks were already paying a fair price for the rights to broadcast Universal and Disney materials.) Third, that a company like Sony could not be held responsible for the actions taken by purchasers of its products, especially as there were alternative, legitimate, non-copyright-infringing uses for the machines. As expected, Disney and Universal appealed, but most members of the video industry thought the whole question was closed for good by Ferguson’s ruling.

A Reversal

All that was changed by an appellate-court reversal of Ferguson’s ruling rendered by a three-judge panel in October of last year. The reversal sent shock waves racing through the home video industry. The higher court rejected all three of Ferguson’s theses, noting that Congress had not specifically exempted home video taping when it amended the copyright laws and that it was not the court’s job to fill in where Congressional intent was not clear. The panel also said that the Fair Use doctrine did not apply because home taping was harming the commercial value of broadcast works. Also rejected was the notion that Sony was not accountable for the actions of its machines’ users, because the Betamax had been “advertised, sold and promoted” primarily for the purpose of recording television programs, thus rendering Sony liable for what the appellate court termed “contributory infringement.” The higher court remanded the case to Ferguson, instructing him to “fashion relief” for the plaintiffs (Universal and Disney), but noting that where “great public injury would result from an injunction, a court could award damages or a continuing royalty.”

Shortly after the announcement of the reversal, Universal filed a blanket suit for damages against every VCR manufacturer doing business in the U.S.—but, interestingly, not against any individual users. The current ruling is applicable only in Guam, Hawaii, and the eight other Western states that comprise the Ninth Circuit and technically refers only to recordings of copyrighted material made off the air—not cable or subscription TV.

Repercussions

This leaves three plausible courses for the future of home video recording. The most likely, in the view of Congress
TAPING...

Watchers, would be for the Congress simply to pass an amendment to the copyright act specifically excluding home video taping from the copyright laws. At least two bills, one in the Senate and one in the House, have been introduced to accomplish this, and action on them is expected this spring.

A second possibility is Sony's expected appeal to the Supreme Court. In all likelihood the case would take months to prepare and present. The result might be a narrow decision that would leave many issues unresolved, but that is of course in the nature of judicial decisions.

The Supreme Court could also conceivably follow the appellate court's recommendation and institute a royalty tax on either VCRs or blank tapes (see accompanying box), formulating its own guidelines for such a royalty arrangement. This third, royalty-based approach is the most disturbing of the three possibilities to the video industry and video enthusiasts.

At this writing, the Senate Judiciary Committee is holding hearings on the subject, with both senators and witnesses making some telling remarks. Senator Dennis DeConcini (D-Arizona), sponsor of the Senate bill that would exempt home video taping from copyright law, presented his view of the situation early on, saying "the networks charge advertisers for the privilege of giving their products exposure concurrent with the airing of the entertainment item, and the circle closes when the American consumer purchases merchandise to which has already been added the cost of advertising. Thus, in a roundabout way, the American consumer has already paid the copyright fee to the copyright holder." Sid Steinberg, president of Universal's parent company MCA, predictably disagreed: "Even if a system of measuring time-shift viewing were to become feasible, a study of videocassette owners indicates that 84 per cent skip commercials.

What advertiser or broadcaster is likely to pay for time-shift viewership when it is either unmeasurable or such viewership is without commercials?" So with barely a nod to the questions of artistic freedom or public rights, the hearings have gotten down immediately to the nitty-gritty: money.

In the meantime, business goes on in the video industry, with some minor changes. Many video dealers report increased sales of recorders by buyers concerned about impending price hikes. Sony officials, apparently confident of a favorable ultimate resolution, are pressing forward with their "most aggressive" Betamax advertising campaign yet while vowing to defend the rights of the American consumer. And the nation's four million or so video-recorder owners—judging by increased blank-tape sales—are apparently continuing their home taping activities without any clear assurance that what they are doing is not piracy. Just one more uncertainty among many in our technologically advanced world.

A TAX ON TAPE?

The idea of a royalty on videocassette recorders or blank videotape, intended to compensate the entertainment industry for the money claimed to be lost when consumers tape programs at home, is not a new one. According to information supplied by the Motion Picture Export Association of America, at least three nations have levies of some type on video recording. The catch is that none of those regulations is apparently accomplishing what they are supposed to.

West Germany has the oldest law. Since 1977 a provision of the revised German copyright law has directed a levy of up to 5 per cent on the wholesaler's purchase price of video recorders sold in the country. In practice, of course, this 5 per cent figure is sequentially expanded by the wholesaler's and retailer's profit margins to something between 7 and 10 per cent of the final price to the consumer—a substantial amount by any standard. The money is supposed to be disbursed to all of the separate parties having copyright claims on a given work—including actors, directors, and cinematographers. (In the U.S., the studio usually holds the copyright and those who work on a film make their money through a simple contractual arrangement with the studio.) But only a tiny fraction of the money collected has ever been paid out—it went to film-score composers because a tangle of lawsuits and questions raised by both the equipment manufacturers and the entertainment industry has kept the cash essentially in escrow.

The law in Austria is even more unwieldy. It prescribes an unspecified tax on blank videocassettes (our information suggests 10 per cent of the retail price), which is to be handed over to a collective management society similar in purpose to our ASCAP or BMI. In theory, this approach seems fairer than a hardware-based tax, in that it taxes those who are actually assembling software libraries rather than video buffs engaged in simple time-shifting or playback of commercial prerecorded tapes. The Austrian government, however, has never issued the necessary implementing regulation, and the law—despite being technically on the books—is not currently in force.

Norway has also recently passed a law covering home video taping and compensation for copyright owners, but we have not been able to obtain detailed information on how it is supposed to work or whether it is in effect currently.

Related audio-taping compensation proposals have not fared well either. Judicial panels in Great Britain have repeatedly rejected taxes on blank tape, most recently last fall. And a blank-tape tax bill submitted to the California legislature last year died in committee despite having strong support from the record industry.

Nonetheless, perhaps a bit of a refresher in just how the Law of the Land stands right now with reference to audio taping might be in order:

IF YOU
a. record yourself, friends, parties, or famous personalities (in person)
b. copy phonograph records either directly or off the air
c. tape programs off the air
d. tape live performances

Do NOT sell or distribute your recordings unless you obtain permission to do so from the following, wherever applicable:
1. the persons involved
2. the person, company, or agency to which the performer(s) may be under an exclusive service contract
3. the copyright owner of the subject matter of the performance, if it is a work protected by copyright
4. the program's broadcaster and its producer
5. the manufacturer of the record
"If it had a Jensen, it would be a classic."

People who know sound know what it takes to make classic car stereo. Electronics like a Jensen RE518 electronically tuned stereo/cassette receiver.

The RE518 features a Quartz Digital Synthesizer that electronically locks into a selected radio frequency. Tuning is extremely accurate because there is no mechanical drift from temperature variations or vibrations. Feather touch push buttons on the RE518 control refinements like equalization for normal or metal and chrome tape playback. And conveniences such as electronic pre-set tuning, seek, scan, and digital readouts.

The RE518 has a universal sized chassis that fits most American and European cars, as well as many other imports. So even if you don’t own a 1934 Buick Club Sedan, with a Jensen RE518 you can have a classic.

JENSEN
CAR AUDIO

When it's the sound that moves you.


CIRCLE NO. 18 ON READER SERVICE CARD
WHEN the monarchy was restored in England with Charles I in 1660, English cathedrals reopened their doors triumphantly. Musically, this meant that the anthem, which combined the grandeur of the French motet with the earlier English Renaissance tradition, had an opportunity to flourish with a new vitality. In the hands of such composers as Pelham Humphrey, John Blow, and especially the young Henry Purcell, this old English form soon became one of the most opulent musical genres of Restoration England.

A new three-disc Deutsche Grammophon Archiv album furnishes eloquent proof of the resplendent, awe-inspiring power of this music while celebrating Purcell's immortal contribution to its development and substantiating his genius, originality, and mastery.

The anthems fall into two basic types: the full anthem for chorus and organ continuo, and the verse anthem for soloists and chorus. The most splendid form is the "symphony" anthem, a verse anthem with orchestral accompaniment featuring an instrumental introduction and interludes.

Purcell's style ranges from intricately wrought contrapuntal techniques to massive, almost Handelian homophonic statements. The solo writing ranges from expressive declamation to suave melodies and makes use of finely balanced duets and trios as well as lavishly conceived solos. Especially striking is Purcell's harmonic language, with its bold dissonances and startling cross relations. All is controlled by the Scripture-derived poetry, each word receiving its exact musical analog in terms of rhythm, figuration, and harmony. In a sense, the English anthem is an expansion of the madrigal, with its perfect marriage of text and music.

One doesn't have to hear much of the Choir of Christ Church Cathedral to sense that one is in the presence of a centuries-old tradition. As in Cardinal Wolsey's time, the chorus consists of twelve men and sixteen boys. The sonorities, reinforced by the cathedral ambiance, are crystal clear. The individual sections are perfectly balanced so that while the counterpoint is heard with clarity, the overall blend is there too to lend power to the homophonic writing. Further, the blending of the voices with the strings and trumpets of the English Concert is ravishing. Especially telling is the sublime combination of Baroque violins and boy sopranos. It is an effect impossible to attain using either female voices, modern strings, or both.

Simon Preston's reading of these works is characterized by a judicious choice of tempos and an abiding concern with pacing. Many of the anthems consist of short contrasting sections that can easily fall apart and become boring unless a sense of musical continuity is carefully sustained. Under Preston's guidance, the sections flow smoothly and logically into each other, creating in the end a compelling sound mosaic of large and impressive design. It is a rare conductor who can achieve such a long line and still not lose the detail of the component parts; Simon Preston's mastery of this music lends the works great breadth and dignity without any suggestion of pomposity.

The album is a monumental homage to Henry Purcell and English church music. But it is far from an antiquarian exercise, a self-conscious revival of past glories, for this is a remarkable living musical tradition with unexpected delights for modern ears. It is not only exquisitely performed but brilliantly recorded as well. Recording engineer
Simon Preston directing the Choir of Christ Church Cathedral, Oxford
(Photo by Clive Bards, courtesy of Deutsche Gramophon)

Ultra Lights
want good taste and ultra low tar.
Karl August Naegler has caught the English cathedral sound beautifully; there is just enough of the resonance and reverberation created by the lofty stone spaces to lend liveliness to the sound but not so much that any of the important musical detail is blurred.

—Stoddard Lincoln

Anja Silja and Christoph von Dohnányi Present Schoenberg's Erwartung as Real Music

London has given us a superb performance of one of the landmark works of twentieth-century music: Erwartung (Expectation), written by Arnold Schoenberg in 1909 in the white heat of inspiration to a text by Marie Pappenheim. The story of a woman who either does or does not discover the body of her lover is treated in the most intensely atonal, athematic, expressionist manner possible. It is no piece of hot-house avant-gardism, but a full thirty-minute musicodramatic case history, one of the most intensely expressive works of art of any period.

Anja Silja, whose singing seems only to improve as the years go by, has mastered the enormous musical and vocal difficulties of Erwartung, plunging beneath a mere surface reading to reach a deeper level of interpretation. She is not just getting all the notes but going beyond them—like in real music! The result is that the work no longer seems to be the overlong cry of anguish we used to hear but something richer, more complex, more dramatic, more insightful. The presence of the Vienna Philharmonic Orchestra, Christoph von Dohnányi cond. London O.LDR 71015 $12.98.

The Brahms Piano Trios In Remarkably Intense Interpretations by Les Musiciens

A Parisian piano trio recording for Harmonia Mundi France calls itself Les Musiciens, and this can be confusing, because that is simply the French equivalent of what the Italian chamber-orchestra I Musici has been calling itself for all these years, and also because the innocent collector may assume "Les Musiciens" to be simply the record company's heading to introduce the participants in this or that particular recording. Indeed, in reviewing this threesome's recording of the Schubert trios last June we simply listed the individual names: Jean-Claude Pennetier (piano), Régis Pasquier (violin), and Roland Pidoux (cello).

Well, so much for sorting out the nomenclature: by any name(s), individual or collective, this is a superb ensemble, and its new set of the three piano trios is the sort of thing that will encourage listeners to remember it both ways. Every regularly constituted trio gets around to recording these works, and generally sooner rather than later, for they constitute a prominent chunk of the cornerstone of this repertoire as well as a choice segment of Brahms' chamber-music production, spanning virtually the entirety of his creative life. Les Musiciens seize upon the dark, dramatic quality abundant in this music as the foundation of their approach, and they manage to invest it with remarkable intensity within a rather expansive frame. If these two notions seem mutually contradictory, an actual hearing will show how mutually supportive they can in fact be. As in the Schubert set, the playing here is extremely suave, subtle, mature in outlook, and exquisitely balanced. The broad pacing, I think, works so well because it is more or less determined by the intensity of the interpretations—an intensity that is not felt or expressed in terms of frenetic irrigations (hardly appropriate to these nobly brooding works), but richly impassioned all the same.

While the tempos in all three works are generally unhurried, the final movement of the Op. 8 trio is just that much more alert than in most other performances of such expansive cast, and it brings the drama of the whole work to a convincing resolution. Opus

Sopran Silja and conductor Von Dohnányi: the right means
European Surfaces For Your Platters.

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87 is paced almost identically with the San Francisco Trio’s persuasive statement of that work (Sound Storage SSR 2010), but it shows a sharper profile as well as a deeper level of intensity. The one point in this set that may disappoint some listeners comes at the beginning of the last and most ingratiating of the three works, the C Minor: the heart-easing quality of the principal theme makes itself more apparent in the grainy, crackling-hearthfire texture projected by the Suk Trio in its recent remake of the Brahms trios (Supraphon set 11112251/2) than in the high-gloss smoothness of the French players. The Czechs, while generally brisker throughout the cycle (they are fiercely effective in the andante of Op. 87, quite different from the way Les Musiciens do it), curiously allow the finale of Op. 8 to drag and come dangerously close to losing momentum. Otherwise, the Supraphon set too is one of the front runners, not only less costly than the Harmonia Mundi but with a substantial bonus in the form of the Horn Trio, with Zdeněk Tylšar sitting in. Overall, though, I feel there is no integral set of the Brahms trios that is quite as persuasively performed or as richly recorded as the new one from France (actually pressed in Germany); the ever-deepening pleasure it affords will justify the investment many times over. Excellent notes, too, with musical examples.

—Richard Freed


Mark Murphy's “Bop for Kerouac” May Be the Vocal Jazz Album of the Year

S INGER Mark Murphy keeps a relatively low profile. That is to say, his is not a familiar face on the talk-show circuit, nor is he someone you will find perennially guesting about on the tube’s various music shows. Too bad, because Murphy has a great deal to say musically, and given the chance he could offer us a refreshing alternative to the dreary fare that seems to please tone-deaf television producers and talent coordinators.

Murphy was seven when he took his first piano lesson, his first musical job was with a band led by an older brother, and he played in Greenwich Village during the late Fifties. After an appearance at the 1962 Newport Jazz Festival, he joined the growing group of jazz performers who sought the greater rewards of Europe. Fortunately, Murphy’s talent has been recognized by record companies, and in recent years, since his return from a decade spent living in England, his very special artistry has been made more generally available in several albums on the Muse label. The latest of these is “Bop for Kerouac,” a tribute to the late Beat poet that may well be his most rewarding effort to date. He turns fifty this month, and he has never sounded better. I have not always cared for the music Murphy sings, but I have never been deaf to his talent, and I am overwhelmed by the way it all seems to work its way to the surface here. He gets splendid assistance from a group led by Richie Cole, and it helps that he has chosen a fine collection of songs to interpret in his own special, prepossessing way. He has even woven some of Kerouac’s words into two of the tunes, Parker’s Mood and Ballad of the Sad Young Men, and the blend is perfect.

If you buy but one vocal jazz album this year you could hardly do better than “Bop for Kerouac,” a delight-filled outing by a member of that vanishing breed of jazz vocalists who are also singers.

—Chris Albertson

MARK MURPHY: Bop for Kerouac. Mark Murphy (vocals); instrumental accompani-
BEST OF THE MONTH:
RECENT SELECTIONS
YOU MAY HAVE MISSED

POPULAR

- Lindsey Buckingham: Law and Order. ASYLUM S-561. "... a contemporary version of Walt Whitman's barbaric yawp." (February)
- Chico Freeman: The Outside Within. INDIA NAVIGATION IN 1042. "... the most important horn player since John Coltrane." (January)
- King Crimson: Discipline. WARNER BROS. BSK 3629. "A seminal band back better than ever." (February)
- Amanda McBroom: West of Oz. SHEFFIELD LAB 15. "Popular singing with intelligence and humor." (January)
- Pieces of a Dream. ELEKTRA 6E-350. "A teenage trio serves up gentle jazz and polished funk." (February)
- Tom Verlaine: Dreamtime. WARNER BROS. BSK 3539. "May be last year's best rock album." (January)

CLASSICAL

- Francisco Araiza: Opera Recital. EURO-DISC SQ 26 163 RR. "A distinguished solo debut." (February)
- J. S. Bach: The Notebook of Anna Magdalena Bach. NONESUCH DB-79020. "An album to be treasured." (February)
- Shlomo Mintz: Kreisler Recital. DEUTSCHE GRAMMOPHON 2531 305. "Charm and affection: a treasure." (January)
- Ravel: Daphnis et Chloe. LONDON LDR 71028. "... the finest recording yet of this music." (January)
- Tippett: Symphony No. 4; Suite for the Birthday of Prince Charles. LONDON LDR 71046. "Rich and complex in kaleidoscopic color and dramatic transformation." (February)

Neil Young and Crazy Horse: Making the World Safe For Loud Noises

Neil Young's ambiguously titled new album "Reactor" is as willful, eccentric, and confusing as any he's made since he abandoned overdubbing on "Harvest." It may be the funniest as well—if he's joking, that is—for it further his post-"Rust Never Sleeps" campaign to prove to the world that middle-aged Canadian hippies can make more obnoxious noises than Johnny Rotten ever dreamed of. Take T-Bone, for example, nine minutes of grinding, feedback-laden, industrial-strength guitar squawk over which Neil intones a lyric which runs, in its entirety, "Ain't got no t-bone... got mashed potatoes."

Now what is any self-respecting rock critic to make of that? What is he saying? Should we take it as a topical aside? The album's title conjures up visions either of a nuclear holocaust or a President whose world view harks back to old Andy Hardy movies, so perhaps we should. Ah, yes... t-bone... mashed potatoes. A pregnant comment on the depressed state of the economy,
GEORGE JONES: in a class by himself

no doubt. Or is it a tip of the hat to T-Bone Walker and an old Dee Dee Sharp record? Who knows? Who cares? Well, I do—sort of. After all, Neil is probably the greatest Bozo rock has ever produced, a sort of pop idiot savant who just may have all the answers if we can ever get around to asking him the right questions. And he's a survivor, just about the only Woodstock-era musician to make it into the Eighties with life, record sales, and credibility intact. He's been as much the chameleon as David Bowie, yet he's never been complacent, cute, or lazy.

Nonetheless, this new album sounds like he's basically goofing around (there are no wondrous masterstrokes such as Cortez the Killer here, for instance). But as a textbook on how to make music out of the sounds of a scrap yard, it will do very nicely. Southern Pacific is the best train song anybody has written in quite a while, Opera Star is a screamingly funny meditation on the rock-and-roll life (the ho-ho-ho chorus is vintage Bozo, and irresistible), and the rest is all eminently worth your attention, especially the punk/funk/metal rave-up of Rapid Transit, on which Neil steals Roger Daltrey's My Generation stutter and does not die of shame. In short, highly recommended to all those fur lovers who thought Lou Reed's "Metal Machine Music" was too straightforward.

—Steve Simels


George Jones: Honkytonk Singing That Will Just Flat Astonish You

I see where some damfool organization has named Moe Bandy honkytonk singer of the year. Well, Moe's a good old boy and I wish him all the best, but anyone who would tell you that any honkytonk singer is in a class with George Jones would suck eggs. As he has before, Jones reminds us in "Same Ole Me," his latest for Epic, that the main thing about the honkytonk is what a sad place it is. And does it without being at all maudlin, even when he brings in daughter Georgette to sing the refrain in Daddy Come Home, a Bobby Braddock weeper that would be right at home in that saloon in Central City, Colorado, where the Chamber of Commerce still celebrates the penning of the immortal Face on the Barroom Floor.

Still, it's a far cry from the best album Jones could make. So far they all have been, for niggling little reasons not too different from the reasons in this case: a few of the songs don't quite make it, and producer Billy Sherrill tends to pour on too much sweeter. But singing is what we were talking about, and there is some of that here that will just flat astonish you. Jones is capable of making one syllable express a whole (broken) heart full of emotions, and he receives just enough backing here from such notables as the Jordanaires and the Oak Ridge Boys to give you a fixation on vocals for days after you hear it. Give him a song that's just average—Someday My Day Will Come, Still Doin' Time, or the title song—and Jones will turn it into something special. Give him a disaster, such as Together Alone, and he will make it respectable. Through it all, he keeps the back of your mind from forgetting the basic premise of the honkytonk: it is the place you go to when something's wrong. Whatever that might be, when Jones sings it sure ain't the music.

—Noel Coppage

GEORGE JONES: Same Ole Me. George Jones (vocals, guitar); instrumental accompaniment. Still Doin' Time; Couldn't Love Have Picked a Better Place to Die: I Won't Need You Anymore; Together Alone; Daddy Come Home; You Can't Get the Hell Out of Texas; Good Ones and Bad Ones; Girl, You Sure Know How to Say Goodbye; Someday My Day Will Come; Same Ole Me. Epic FE 37106, © FET 37106, © FEA 37106. no list price.

MARCH 1982
French baritone Gérard Souzay, now in his sixties, is still singing, but like most mature artists he spends increasing amounts of time teaching. Recently at the Juilliard School of Music in New York he gave a couple of master classes to pass on to younger singers some of the things he has learned in a distinguished career in opera houses, concert halls, and recording studios.

Working with a group of impressively gifted students, he seemed especially concerned with the proper use of dynamics to provide contrast, build excitement, and give shape to a song. "Each nuance must be motivated," Souzay said. "If you don't feel something, don't sing it."

His approach was summed up in his remarks to a young soprano: "You must perform the song as though this is your last chance to sing it. You must somehow be better than yourself, or it will not be enough. You must not only sing the song, you must live it. And if you don't enjoy it, your public certainly will not." —W.L.

Errorts to expand the concert repertoire sometimes pay off—and sometimes they don't. Promoters of Gustav Mahler, for example, have persuaded the American audience to make room for him in their hearts and on their symphony programs, and Béla Bartók has just had a good year. But back in the Sixties not even so popular a conductor as Leonard Bernstein was able to make the American public take to the Danish composer Carl Nielsen, and despite the support of strong partisans, Anton Bruckner has still not been invited to come in out of the cold.

A while back the pianist Raymond Leventhal did his best for the French composer Charles-Henri Alkan (1813-1888) and recorded some of his compositions for RCA, but those recordings have been deleted. Alkan was represented in Schwann only on a couple of albums by pianist Michael Ponti (Candide 31045 and Turnabout 34740) and one by the Mirecourt Trio (Genesis 1058/9) until Arabesque released "The Alkan Project" (8127-3) on February 1. This set contains Alkan's Eludes, Opus 39, a work that includes the Symphony for Piano and Solo and the Concerto for Piano, played by British pianist Ronald Smith. If the public responds to the records and to the Alkan works Smith is including in his New York concerts in February and March, Arabesque is prepared to release more Alkan played by Smith.

Russian composer Sergei Taneyev (1856-1915) is being pushed by Pro Arte Records, which has just doubled his listings in the catalog by bringing out three new discs of his work: the Suite de Concert for Violin and Orchestra, the Trio in D Major for Violin, Cello, and Piano, and the Piano Quartet in E Major. Taneyev, a friend and pupil of Tchaikovsky and the teacher of Scriabin, is one of the most respected figures in Russian music, but he is little known in the West. His Symphony No. 4, performed by the London Symphony Orchestra...
Conducted by Yuri Ahronovitch, was recorded by Pro Arte in Europe and released in this country by Arabesque in 1980.

If Alkan and Taneyev seem unlikely candidates for the Classical Top 40 in the United States, you should remember that few people here knew the music of Erik Satie until pianist Aldo Ciccolini made his best-selling Satie series for Angel Records back in the Sixties and Seventies. These days you can even hear his Gymnopédies used as backgrounds for radio and TV commercials.

SHOULD classical music be banned for its own good? Maybe. A recent issue of Chicago magazine (it has the impressive circulation figure of 212,500) contained an article on X-rated movies, "Visions of Vice" by William Braslither, which compared pornography to classical music. After pointing out that access to the current glut of smut has reduced the demand for hard-core books and movies, Braslither said, "It may well be that pornography, if left to itself, might assume the status of classical music: that is, a specialized field with a small but devoted audience. From everything we've learned, harmless following..."

The general public, as usual, will take a casual, no-damage attitude toward it, unless, of course, pornography were banned... In that case it would become, like any other contraband, an underground sensation.

The bust becomes even creamier when you realize that the Beethoven Violin Concerto in D Major (BWV 1054); No. 6, in F Major (BWV 1058). Raymond Leppard (harpsichord); Richard Taylor, Adrian Brett (recorders, in 1057); English Chamber Orchestra, Raymond Leppard has finally retired at the age of ninety-two. Advanced age and decades of standing at his work have strained his back so that he now requires two sticks just to be able to walk.

Still waving their sticks vigorously at orchestras are the much younger Neville Marriner, André Previn, and John Williams, each of whom has just re-upped for another hitch in his present musical post—Marriner with the Minnesota Orchestra, Previn with the Pittsburgh Symphony, and Williams with the Boston Pops. It was rumored that the Pittsburgh Symphony had to increase Previn's fee to $1 million to get him to renew. The orchestra denied that rumor but declined to release the actual figure.

Coincidentally, all three of these conductors have new albums on Philips. Marriner's is a new recording of Bach's Brandenburg Concertos with members of the Academy of St. Martin-in-the-Fields and such stellar soloists as Henryk Szeryng (violin), Jean-Pierre Rampal (flute), and Heinz Holliger (oboe). Previn's is a digital recording of the Tchaikovsky Fourth with the Pittsburgh Symphony, Williams' first four albums with the Boston Pops—"Pops in Space," "Pops on the March," "Pops on Broadway," and "We Wish You a Merry Christmas"—all sold so well that hopes are high for his new album of overtures scheduled for March release.

Disc and Tape Reviews

By RICHARD FREED • DAVID HALL • GEORGE JELLINEK • PAUL KRESH
STODDARD LINCOLN • ERIC SALZMAN

J. S. BACH: Harpsichord Concertos: No. 3, in D Major (BWV 1054); No. 6, in F Major (BWV 1057); No. 7, in G Minor (BWV 1058). Raymond Leppard (harpsichord); Richard Taylor, Adrian Brett (recorders, in 1057); English Chamber Orchestra, Raymond Leppard cond. PHILIPS 9500 962 $10.98, © 7300 962 $10.98.

Performance: Dashing
Recording: Excellent

Lacking a virtuoso violinist for his Colle-
gium Musicum in Leipzig, Bach trans-
scribed his violin concertos for the harpsich-
orchord. Thus came into being the three con-
certos presented in this album, two taken from solo violin concertos and a third from the Fourth Brandenburg Concerto. As chamber music, the transcriptions work very well in intimate surroundings; played in a concert hall with a string orchestra, however, the solo part is lost. This problem was solved in the present recording by judi-
ciously adjusting the natural balance.

Raymond Leppard favors lively tempos and dashes off the harpsichord part with brilliance. The English Chamber Orchestra furnishes brisk, neatly played accompaniments, and the overall result has vigor and sparkle. This is Bach that comes off in mod-
ern terms. S.L.

RECORDING OF SPECIAL MERIT

BEETHOVEN: Violin Concerto in D Ma-
J. Itzhak Perlman (violin); Philh-
...
FRANZ LISZT’s late piano works are turned inward. They are so intense in feeling and (for their time) avant-garde in technique that many of them remained unpublished, unplayed, and virtually unknown until recent years. A number of writers and performers have taken up the cause of this music lately, but few have done so as persuasively on records as Cyprien Katsaris and Alfred Brendel.

On a fascinating recent Telefunken disc, Katsaris introduces the tortured, bedeviled soul of the old man with a pious thought. The first piece he plays is the Bénédiction de Dieu dans la Solitude, the third of the Harmonies Poétiques et Religieuses that Liszt wrote before the midpoint of the nineteenth century, and quite beautifully earnest it is too. But elements of unease, uncertainty, and doubt seemed to grow, not diminish, in Liszt’s personality with the passing of the years. In the popular Mephisto Waltz No. 1, which derives from music written in 1860 to illustrate Lenau’s Faust, the demonic element is explicit though it is mainly illustrative and theatrical. But in the last years of his life Liszt wrote no less than three more Mephisto Waltzes (the last unfinished), each further gone in oddity than the preceding, plus a weird little Bagatelle Without Tonality (originally intended as yet another Mephisto Waltz) and a sardonic Mephisto Polka.

How the demons must have besieged Liszt for him to have thus to exorcise them again and again! The popular first Mephisto Waltz has overshadowed the later, quirksier ones, which are not illustrations for a literary scene but excursions into nether regions of the soul. They do not represent operatic paraphrases we are back on safer ground. These are by no means all of the “great” Liszt paraphrases, as the album bills them—the most obvious omission is the very definitely great Don Juan Fantasy—but they are certainly some of the best, played to the hilt and very well recorded. But put one of these pieces next to one of the later Mephisto Waltzes and then that one against an early poetic or late morose work, and you’ll find it hard to imagine them all being written by the same man. Liszt was certainly the founder of modern musical schizophrenia, and that is not the least of his continuing fascination for listeners and players alike. — Eric Salzman


LISZT: Années de Pèlerinage, Troisième Année, Nos. 2, 4, and 5: Aux Cypres de la Villa d’Este; Les Jeux d'Eau A la Villa d'Este; Sunt Lacrymae Rerum. Schlummerlied (Berceuse); Valse Oubliée No. 1; Unstarb, Sinistre—Disastro; Schlafllos—Frage und Antwort; Mosonyis Grabelei; Csárdás Macabre. Alfred Brendel (piano). PHILIPS 9500 775 $10.98, © 7300 863 $10.98.

A NEW British label, dell'Arte Records, has released an album of Bach arrangements and transcriptions that Leopold Stokowski recorded with the Philadelphia Orchestra for RCA in 1927-1930. If you’re a Baroque purist, you’ll hate these old recordings, but if you can appreciate the best, in a certain kind of old-time music making, you’ll love them.

I only wish the album hadn’t begun with the Second Brandenburg Concerto, a performance that has its weaknesses, but with the glorious transcription of the Toccatina and Fugue in D Minor—known to every Pinchas Zukerman’s Deutsche Grammophon recording with Daniel Barenboim conducting as Szegedi’s did to Kreisler’s. Whereas Zukerman’s fiddling is suffused with a romantic glow, Perlman, perhaps taking his cue from Giulini, builds up a reading of the utmost classical poise and strength, which is a bit unexpected from this normally ebullient practitioner of violinistic wizardry. The deliberate opening movement here accumulates intensity, and the slow movement is a transcendental essay in purity of tone and phrase, but in the finale Perlman finally cuts loose with a blaze of virtuoso fireworks—nothing coy here—topping it off with a dazzling rendition of the Kreisler cadenza (Kreisler’s is also used in the opening movement).

The sonics are highly satisfactory; the soloist is spotlighted, but not obtrusively so, and the orchestral contribution has a nicely spacious surround. The Szegedi recording still holds a place of honor in my collection, and in my youth, but I’m very glad to add Perlman and Giulini’s.

D.H.

BIZET: L’Arlesienne, Suites Nos. 1 and 2; Jeux d’Enfants. Toronto Symphony, Andrew Davis cond. CBS 0 IM 36713, © HMT 36713, no list price.

Performance: Impeccable
Recording: Excellent

Despite the immense amount of attention they have received in the recording studio, these ingratiating concert works by Georges Bizet wear better than most. The first of the suites, drawn from the incidental music Bizet wrote for Alphonse Daudet’s play L’Arlesienne, he put together himself. After his death, Ernest Guiraud (he wrote the recitatives for Carmen) assembled the second suite, padding it out with music from Bizet’s 1867 opera La Jolie Fille de Perth (which itself gave rise to still another suite). Guiraud did his work so well that the two suites make a lovely pair.

The program on this album is most aptly filled out with the suite from Jeux d’Enfants, a set of twelve piano pieces composed in 1871. The five movements of the orchestral suite are delightful miniatures depicting wooden horses, swings, soap bubbles, a lullaby for a doll, and a spinning top. Andrew Davis brings out the best in the Toronto Symphony in impeccable performances that never exaggerate for effect but manage to convey the full flavor and charm of these delightful scores.

P.K.

BRAHMS: Piano Trios Nos. 1-3 (see Best of the Month, page 74)

BRUCH: Violin Concerto No. 1, in G Minor, Op. 26 (see MENDELSSOHN)

CHOPIN: Piano Concerto No. 1, in E Minor, Op. 11. Emanuel Ax (piano); Philadelphia Orchestra, Eugene Ormandy cond. RCA © ATCI-4097 $15.98, © ATK1-4097 $15.98.

Performance: Elegant pianism
Recording: Orchestra lacks focus

The immensely gifted Emanuel Ax now has recordings of both Chopin piano concertos to his credit, and in No. 1—actually the latter and more elaborate of the two—he displays flawless technique in the exacting and
numerous episodes of passagework and a fine command of subtle dynamic nuance. Most gratifying to my ears is his classic poise throughout the slow movement. I can't say that digital mastering adds anything special to the recording as such unless it be the absence of intrusive background noise. Indeed, the fault of this particular production lies in the rather ill-focused recording of the orchestra; Chopin's already somewhat opaque scoring is hardly enhanced by the blowsy-sounding opening orchestral ritornello. Eugene Ormandy contributes his usual considerate and well-considered accompaniment.

D.H.

RECORDING OF SPECIAL MERIT

Performance: Spontaneous
Recording: Warm

It seems to be only on records that we get much of an opportunity to hear the first two of Grieg's three violin sonatas, and of course they make a very sensible coupling. Philipp Naegle and Gunter Krieger sound very happy with this music, as if they had been really committed to it for a long time and had not just picked it up to add a couple of novelties to the catalog. They make no attempt to muffle the exuberance and impetuosity that are these early sonatas' dominant characteristics; there is an uncommon—and thoroughly irresistible—degree of give-and-take in their playing, a fluent spontaneity quite in keeping with the music's own character, as well as abundant beauty of tone from both instruments. Jascha Heifetz set a perhaps matchless standard in the fervently communicative performance of the G Major Sonata he recorded with Brooks Smith in 1955 (now in RCA CR M6-2264), but in its own right the new version is hardly less compelling, and in Op. 8 Naegle and Krieger are themselves quite matchless. Both sides are recorded warmly and in virtually ideal balance, and the pressing itself is a heartening example of what our domestic plants can do. Highly recommended.

R.F.

RECORDING OF SPECIAL MERIT
HASSE: Concerto in G Major for Mandolin and Orchestra. HUMMEL: Concerto in G Major for Mandolin and Orchestra. HOFFMANN: Concerto in D Major for Mandolin and Orchestra. Takashi Ochi (mandolin); Paul Kuentz Chamber Orchestra, Paul Kuentz cond. PHILIPS 6527 098 $10.98, 07311 098 $10.98.

Performance: Elegant
Recording: Excellent

The three concertos for mandolin and orchestra were all written by expert craftsmen who had in common an elegance of taste, grace, subtlety, and the late-Classical musical language. The instrument they wrote (Continued on page 87)

MARCH 1982
Mozart:
Three More Views

Neville Marriner and the late Karl Böhm more or less share the distinction of having recorded more Mozart symphonies than any other conductor, with duplications of some individual titles along the way (in Böhm’s case even a quintuplication or two). In a new batch of releases from Philips and Deutsche Grammophon, Marriner and the Academy of St. Martin-in-the-Fields add a few titles they had not covered before, and Böhm, in what may be his valedictory Mozart offering, gives us his final thoughts on two well-loved symphonies and adds to his vast discography a work that in the circumstances must seem especially poignant, the Masonic Funeral Music.

Böhm’s realization of the Funeral Music with the Vienna Philharmonic can only be called awesome: he really dug in and brought out a virtually unsuspected degree of power without sacrificing any of the essential dignity. Unfortunately, some of this funereal mood seems to have spilled over into the marvelous Symphony No. 29, whose first movement here assumes almost the character of a slow movement. Böhm was perhaps as leisurely in his earlier recording of No. 29 with the Berlin Philharmonic, but that performance was nonetheless informed with momentum and spirit; this one, for all the gorgeous playing, merely plods. The approach preferable to some of the romantic indulgences of the past, but this is really a fairly romantic movement, with more than a little pathos and sublimated passion beneath its exquisite exterior. I have no complaints about No. 34, which receives a handsome, vital, extremely sympathetic performance. Marriner includes the Minuet, K. 409, that some other conductors (Böhm among them) have inserted into this work by way of restoring its “lost” movement, but he wisely appoints it at the end of the side instead of interrupting the sublime scene-change Mozart decreed. Judged by Philips’ own high standards, the sound on both these discs is just a little tubby, but in general it is more than agreeable.

While we expect Mozart symphonies from Marriner and Böhm, we have not had any from Rafael Kubelik since he taped his own pairing of Nos. 34 and 38 for Mercury with the Chicago Symphony Orchestra in 1953. (He also recorded Nos. 35, 36, 38, and 41 with the Vienna Philharmonic for Decca a few years later, but those were never issued here.) Now, with the Bavarian Radio Symphony Orchestra, as whose conductor he stepped down in 1979 after eighteen productive years, he has made a digital recording of the last two symphonies—the big G Minor and the Jupiter—for CBS, and the performances are different from most of those we have been hearing from other interpreters. Kubelik makes few gestures toward our current notions of eighteenth-century style, nor does he attempt an overlay of drama. His approach is evenhanded and somewhat understated, characterized by patrician grace and a marked sobriety that is at the same time not without expansive-ness or warmth of heart. He seems to be unhurriedly and undemonstratively allowing Mozart to reveal his own secrets, concentrating for his part on balance and clarity (the fugal sections of the Jupiter’s finale are exceptionally clear here). The orchestra is at the very top of its form, the various solo passages are phrased comfortably and eloquently, and momentum is maintained with heartbeat naturalness. These may not seem the most striking performances of these familiar works at first hearing, but there is a radiance about them that may ensure uncommon durability. That radiant effect as well as the remarkable clarity are effectively enhanced by the beautifully “open” sound.

—Richard Freed
for, much like a lute though with its own characteristics and somewhat less versatility, was intriguing enough to Beethoven for him to own one and to have composed five solos for mandolin with piano accompaniment. It's also the very instrument on which Mozart's Don Giovanni plays his little canzonetta to tempt the lady in the second act of the opera. Nepomuk Hummel (1778-1837) knew Beethoven, and the development of the various themes in his G Major concerto is the most advanced on this disc. Yet it is not too great a departure from the modest dimensions of the work in the same key by Johann Adolf Hasse (1699-1738), who was born in Hamburg and died in Venice after composing sixty operas in Dresden, or the one in D Major by Giovanni Hoffman, about whom little is known except that he flourished around 1800. In a sense, all three concertos are really serenades. Their airy charm makes for consistently gratifying listening, especially as lightly and lissomely interpreted here by mandolinist Takashi Ochi with delicate chamber-orchestra accompaniment under the deft baton of Paul Kuentz. P.K.

**Recording of Special Merit**

**Haydn:** Arias. Vada adagio, Signorina; Infelice sventurata; Son pietosa, son bonia; D'un' sposa meschina; Sono Alica e sono ancora; Chi vive amante, Solo e pensoso. Cantata, Miseri noi, misera patria. Edith Mathis (soprano); Chamber Orchestra of Lausanne, Armin Jordan cond. Philips 9500 929 $10.98, © 7300 929 $10.98.

Performance: Lovely
Recording: Splendid

In 1775, when Prince Nicholas founded an Italian opera company at Esterháza, Haydn became deeply involved in opera. Not only did he compose two of the operas that he conducted and arranged operas of other composers. In typical eighteenth-century fashion, if he did not like certain arias by his contemporaries he thought nothing of scrapping them and writing new ones. Edith Mathis devotes most of this album to such "substitute" arias, showing us an unfamiliar but delightful side of Haydn.

Most of the arias, oddly, depict young ladies who have been wronged in love and are eager to reveal their despondency and ill feeling toward men in general. Mathis' portrayal of these jilted women strikes the perfect balance between lamentation and outrage. Though tastefully avoiding slapsick and bathos, she brings out Haydn's wit and warmth. She is in excellent voice, her phrasing is supple, and her word coloration subtle. The coloratura always falls into the music-line rather than being sung for brilliance. In short, her singing here is the very essence of Classical expression, and it is well and suitably accompanied. S.L.

**Haydn:** Sinfonia Concertante in B-flat Major for Oboe, Bassoon, Violin, Cello, and Orchestra; Concerto in F Major for Violin, Harpsichord, and Orchestra. Violin Concertos: No. 1, in C Major; No. 3, in A Major ("Melk"); No. 4, in G Major. Salvatore Accardo (violin); Bruno Canino (harpsichord); Nei Black (oboe); Graham Sheen (bassoon); Heinrich Schiff (cello); English Chamber Orchestra, Salvatore Accardo


Performance: Splendid
Recording: Robust

Haydn is known to have composed four concertos for violin and string orchestra, the second of which is lost. Only the first two of the three surviving concertos is likely to be familiar to many listeners, and all three (the last of which, I understand, may still lack authentication) have been notoriously underrepresented on records. It is heartening to have so fine a musician as Salvatore Accardo turn his attention to them, and he serves them extremely well in what appears to be his first recording in the dual role of soloist and conductor. If the elegance of Philips' earlier recording of the C Major with Arthur Grumiaux (Raymond Leppard conducting) is not fully matched here, it is not missed by much: the performances of all five works in this set are stylish and enlivening in the best sense, and the sound is marred only by a slight tendency toward bass-heavyness on the second disc, which contains the three solo concertos. That is a generously filled record, with each side running about thirty-four minutes, but the layout—another of those "sandwiches" that Philips, perhaps more than any other major company, seems to love to dish up—is a distressing example of how more becomes less, and it is what impels me to withhold the

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MARCH 1982

CIRCLE NO. 25 ON READER SERVICE CARD
"Special Merit" tag from an otherwise exceptional recording.

HOFFMAN: Mandolin Concerto in D Major (see HASSE)

HUMMEL: Mandolin Concerto in G Major (see HASSE)

MASSENET: Werther. José Carreras (tenor), Werther; Frederica von Stade (mezzo-soprano), Charlotte; Thomas Allen (baritone), Albert; Isobel Buchanan (soprano), Sophie; Robert Lloyd (bass), the Bailiff; Paul Crook (tenor), Schmidt; Malcolm King (bass), Johann; others. Orchestra and Children's Chorus of the Royal Opera House, Covent Garden, Sir Colin Davis cond. PHILIPS 6769 051 three discs $29.94, © 7654 051 $29.94.

Performance: Good
Recording: Excellent

For reasons that may be worth exploring elsewhere, Werther seems to have overtaken Manon (a distinctly superior work) as Massenet's most popular opera. There are now four stereo Werthers in the catalog, and, what is quite gratifying, three of them are commendable.

The new Philips set, a by-product of a recent Covent Garden production, benefits from aproved ensemble spirit and from the strong hand of its conductor. With all those outstanding Berlioz interpretations to his credit, Sir Colin Davis needs no introduction as a masterly orchestral colorist who can handle Massenet's subtly sensuous orchestral idiom with a sure and sensitive command. He also maintains enough firmness and propulsion to counteract the lachrymose tendencies in the music. Overall, his approach is closer to Michel Plasson's (Angel S-3894) than to Georges Prêtre's (Angel S-3736), which is more briskly paced. José Carreras starts rather unpromisingly with Werther's opening "O Nature, pleine de grace," in which the requisite ardor is effortfully expressed. He improves in the later scenes, and the dark timbre of his attractive voice helps in creating a manly figure out of Goethe's at times annoyingly self-pitying hero. There is much here that this sensitive artist does very well indeed; it is unfortunate that so much of his singing above the staff lacks grace. Frederica von Stade, on the other hand, solves all her vocal problems beautifully. She is an absolute pleasure to listen to, though a bit cool and distant for my taste—too much the proper, dutiful wife to make her agonizing dilemma fully believable. In the not-too-grateful role of the husband, Thomas Allen not only excels but also manages to sound young enough to realize the poet's intention.

Isobel Buchanan is a charming Sophie who does not overdo her girlishness, and the smaller roles are well handled. The orchestra plays with passion and refinement, and, though I've heard more attractive tones in children's voices, the present group does no serious damage. This is a good Werther, but my preference remains Angel S-3736 with its perfect pairing of Nicolai Gedda and Victoria de los Angeles.

R E C O R D I N G S O F S P E C I A L M E R I T


Performance: Russian
Recording: Good

Perhaps it's just that I've heard too many Nathan Milstein records, but I thought that the performance parameters of the Mendelssohn and Bruch concertos were clearly set and generally known. I was wrong. Back in 1974 Leonid Kogan made his first (and, to my knowledge, only) recording of the Mendelssohn, released in the United States now for the first time, and what he gives us is a Russian concerto—big, throbbing, emotionally drenching, full of sobs, sighs, passion, and great heroic gestures. Even the very opening comes at us like a Russian gypsy adagio. The Bruch is even stranger, sounding in ways like a sort of Russian Mahler. It is startling to hear such interpretations from a world-class musician in 1974. Were it 1949 it would be more comprehensible, for this is the kind of music making that develops in a land cut off from cosmopolitan influence, approaching the score as if it had just been discovered and turning inward to its own musical traditions as the sole interpretive tools. Strange.

Still, Kogan is a colossal violinist and musician (I cannot believe that Maazel is responsible for anything more here than carrying out Kogan's wishes), and this is violin playing on nearly the highest level. Furthermore, Kogan has such force of character that while these performances cannot possibly convince anyone who knows the scores, they command interest and attention, and almost awe. We don't hear enough of Kogan by a long shot in this country and on records, and this disc tells us what we have been missing. A disturbing record, in more than one way.

—James Goodfriend

PURCELL: Choral Works (see Best of the Month, page 70)

RAVEL: Histoires Naturelles (see Going on Record, page 58)
In the two works on the new London disc, Joaquin Rodrigo created the two most popular guitar concertos of all time, and the Concierto de Aranjuez by now must be ranked one of the most successful concertos for any instrument. It is represented by more than a dozen current recordings, about half of which are paired with the Fantasia para un Gentilhombre. Not one of them is less than pleasing, and if I have remained loyal to the old Yepes/Argenta version (London STS 15199 in this coupling, or CS 6046 in a different one) I cannot pretend I'd be much less happy with, say, Angel Romero and André Previn, again in the same coupling (Angel S-37440). The advantage Carlos Bonell enjoys, in addition to the sensitive accompaniments under Charles Dutoit, is the limpid digital recording and a somewhat more judicious balance than his various predecessors, nearly all of whom were brought unnaturally forward in relation to the orchestra. Two very handsomely performed recordings, excellently recorded.

The Varése Sarabande disc, of course, would have been a companion to an existing recording of the Concierto de Aranjuez rather than a replacement, and it makes a much stronger impression than the London. Handsome as the Bonell/Dutoit Fantasia may be, the opening phrase of the Moreno/Báitz performance is sheer magic, so idiomatically ingratiating that any resistance one may have simply melts, and the promise thus implied is more than fulfilled as the work unfolds. What is more remarkable is the similar effectiveness of the Concierto Andaluz, the four-guitar concerto which heretofore seemed at best only one-fourth as fetching as either of Rodrigo's solo guitar concertos. It is an appealing piece, after all, with its own share of inventiveness and poetry—or so one is persuaded in this brilliantly evocative performance.

I would not attempt to evaluate the young Mexican orchestra from performances of this relatively undemanding material, but Báitz, who has been recording for this label with both English and Mexican orchestras, is apparently a conductor of real sensitivity as well as technical assurance, and the unfamiliar guitarist is all one could ask in the way of dexterity and conviction. The recording itself is outstandingly realistic, with still more natural balance than London's. In short, a honey of a record.

(Continued on page 91)
THE unconventional 1976 Bayreuth staging of Wagner's Ring cycle by producer Patrice Chéreau and conductor Pierre Boulez was generally greeted with cries of outrage or, at the very least, mutters of apprehension. It seems, though, that over the years the production has gained many partisans. Philips has now released the music of this Ring in four volumes totaling sixteen discs. The performances carry an unmistakable theatrical conviction that is further enhanced by stage noises (they are hardly ever obtrusive to the point of distraction), but there is no applause or any other suggestion that the taping took place before an audience. Technically, the production is first-rate. The first three operas of the Ring were digitally recorded; Götterdammerung, for some reason, was not, but the difference is imperceptible. The entire set benefits from the characteristic Bayreuth perspective, which gives the singers prominence but supports them with a clear and sonorous orchestral foundation.

The unorthodox elements of Chéreau's staging are revealed in the lavishly illustrated book, Boulez in Bayreuth, that comes with the set. (It also contains an essay of Wagnerian verbosity by the actor.) This review, however, must deal only with what meets the ear. Musically, the results are at best uneven: Boulez's estimable leadership is severely hampered by generally undistinguished, and in one instance disastrous, singing.

As might be expected from one with his precise, analytical kind of mind, Boulez strives for clarity and stays clear of interpretive excesses. The orchestra sounds surprisingly lean for Wagner; the dynamics are subtly graded and avoid shattering climaxes. Certain scenes are captured with amazing vividness: the piling-up of theNibelung treasure in Das Rheingold, the great rhythmic vitality of Siegfried's Forging Scene, the gathering of the vassals in Götterdammerung, to single out a few. There is no lack of power and momentum in Boulez's way with the music, but the eloquence, the poetry, and the passion in Wagner's writing are not sufficiently stressed. The "Todesverkündigung" and Wotan's Farewell in Die Walküre and the final Immolation Scene do not move the listener as they should.

Nonetheless, the conducting is the strongest element in this production. The real problem is the dearth of Wagnerian voices—a severe international malady. I can say without exaggeration that in this entire gigantic undertaking there is only one case in which role and interpreter are ideally matched—the Finnish basso Matti Salminen as Fasolt. Fortunately, after Fasolt is duly dispatched at the end of Das Rheingold by his brother giant Fafner, Salminen re-emerges in Die Walküre as an equally impressive, darkly malevolent Hunding.

There is no denying the involvement and conviction conveyed by this well-rehearsed group of singing actors. Just the same, I cannot regard this set as competitive with the previous recorded Ring cycles under Solti (London) and Karajan (Deutsche Grammophon), both of which, to be sure, have limitations of their own. To record the Ring is a phenomenal undertaking. Like Siegfried's task, it should be attempted only by those who know no fear. But they should also have the voices for it.

GEORGE JELLINEK
WAGNER: Der Ring des Nibelungen. Das Rheingold. Donald McIntyre (bass-baritone), Wotan; Martin Egel (baritone), Donner; Siegfried Jerusalem (tenor), Froh; Heinz Zednik (tenor), Loge; Matti Salminen (bass), Fasolt; Fritz Hübner (bass), Fafner; Hermann Becht (baritone), Alberich; Helmut Pampuch (tenor), Mime; Hanna Schwarz (mezzo-soprano), Fricka; Carmen Reppel (soprano), Freia; Ortrun Wenkel (contralto), Erda; others. Bayreuth Festival Orchestra, Pierre Boulez cond. Die Walküre. Peter Hofmann (tenor), Siegmund; Matti Salminen (bass), Hunding; Donald McIntyre (bass-baritone), Wotan; Jeaninne Altmeyer (soprano), Sieglinde; Gwyneth Jones (soprano), Brünnhilde; Hanna Schwarz (mezzo-soprano), Fricka; others. Bayreuth Festival Orchestra, Pierre Boulez cond. Siegfried. Manfred Jung (tenor), Siegfried; Heinz Zednik (tenor), Mime; Donald McIntyre (bass-baritone), Wanderer; Hermann Becht (baritone), Alberich; Fritz Hübner (bass), Fafner; Ortrun Wenkel (contralto), Erda; Gwyneth Jones (soprano), Brünnhilde; Norma Sharp (soprano), Forest Bird. Bayreuth Festival Orchestra, Pierre Boulez cond. Die Götterdammerung. Manfred Jung (tenor), Siegfried; Franz Mazura (bass-baritone), Gunther; Fritz Hübner (bass), Hagen; Hermann Becht (baritone), Hagen; Gwyneth Jones (soprano), Brünnhilde; Jeaninne Altmeyer (soprano), Gutrune; Gwendolyn Kilblebrew (mezzo-soprano), Waltraute; others. Bayreuth Festival Orchestra, Pierre Boulez cond. PHILIPS • 6769 074 sixteen discs $150.

There are some positive contributions in minor roles. Das Rheingold benefits from the uncommonly lyrical Froh of Siegfried Jerusalem, and Ortrun Wenkel makes a firm-toned and dignified Erda. The three Rheingmaidens (Norma Sharp, Iese Gramatzki, and Margrte Schmi) are good, and Heinz Zednik, a weak Loge in Rheingold, turns into a skillful Mime in Siegfried, making maximum expressive use of a very slender voice. In contrast, the rich-toned Wendel Killebrew lacks the expressive quality to make her Waltraute memorable. Hermann Becht's Alberich is mainly toneless declamation, dryly voiced and lacking in legato. Fritz Hübner is suitably evocative as both Fafner and Hagen, but vocally undistinguished. Jeaninne Altmeyer is adequate as Sieglinde and Gutrune. Franz Mazura finds the tessitura of Gunther uncomfortably high, but he demonstrates that he is an artist of stature.

STEREO REVIEW
SATIE: Mélodies (see Going on Record, page 58)

SCHOENBERG: Erwartung; Six Orchestral Songs, Op. 8 (see Best of the Month, page 74)

RECORDING OF SPECIAL MERIT

SCHUBERT: Quartet No. 14, in D Minor (D, 810, "Death and the Maiden"), Juilliard Quartet. CBS M 37201, © MT 37201, no list price.

Performance: Prime Juilliard
Recording: Very good

The Juilliard Quartet’s recent remake of Schubert’s last and greatest string quartet, the G Major, Op. 161/D. 887 (CBS M 35827), was a striking improvement over an already excellent earlier recording; now the remake of the most beloved of the late quartets serves to reinforce the happy impression of a distinguished chamber-music ensemble at the very peak of its powers. There is nothing strikingly different in this reading: it is very much the D Minor Quartet as most of us have known and loved it all our lives, but the familiar view is projected in an idealized form in terms of precision, intensity, balance of pathos and passion, and coherence.

The Juilliard’s version is somewhat less taut and austere than the distinguished versions by the Melos Quartet of Stuttgart, (Deutsche Grammophon 2530 533) and the Prague String Quartet (Supraphon 1111 53827), but it is unquestionably on the same exalted plane and, in CBS’ incandescent sonic frame, an equally reasonable candidate for top honors among current recordings of the work.

RECORDING OF SPECIAL MERIT


Performance: Probing
Recording: Nice


Performance: Ruminative
Recording: Very good

Alfred Brendel’s first record of Schumann’s solo piano music since his now deleted Vanguard disc of the Fantasia and the Symphonic Etudes is not only more convincing than those performances were but is one of the finest things he has given us in some time. These are probing interpretations by a pianist who has unquestionably found his way deep inside the music and knows how best to illuminate his findings. The fantastic element in the Kreisleriana comes off especially well because of Brendel’s firm grip on the work’s dimensions and his resistance to any temptation to underscore the bizarre. There is an abundance of Schumann-esque warmth of heart and a fine regard for color tempered by a certain sobriety that does not suppress these factors but simply keeps them from calling undue attention to themselves. In the Kinderszenen there is absolutely no trace of condescension: these are reminiscences on the part of a sensitive adult, not caricatures or diversions for children, and in Brendel’s hands the sequence is poetry from first note to last. A very appropriate coupling, actually, and very nicely recorded.

The Nonesuch disc is the first solo recording by Richard Goode to come to my attention. He is no less serious an artist than Brendel and apparently no less thoroughly inside the music, but on the evidence here he strikes me as less capable of—or perhaps simply less concerned with—communicating what he finds there. These are not demonstrative performances, but rather ruminative ones, as if Goode were reminding himself of what he had long ago found and digested in these works and now has no need to dramatize to himself. The playing is not without passion, but that quality is more insinuated than displayed, and I miss a sense of genuine momentum. There are some beautiful shadings here, though, and the Schumann lover able to accept Goode on his own terms may find a sort of communion without overt communication in these essentially well-proportioned, elegant, somewhat mystical explorations of fascinating works to which there will always be more than a single true path. The instrument itself is a noble one, and the digitally mastered recording is very good.

(Continued overleaf)

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CIRCLE NO. 46 ON READER SERVICE CARD

MARCH 1982
The Eurodisc album "Concert After the Concert" by violinist Gidon Kremer and his pianist wife Elena is a collection of old-fashioned trifles, encores, and bits of kitch that is so unusual, so craftily put together, and so wonderfully played that it amounts to a completely delightful novelty.Appearances can be deceiving. A violin recital that begins side one with Sarasate and ends it with the Tchaikovsky Valse-Scherzo—with salon Sibelius, Chopin variations on Rossini (originally for flute!), a Ravel miniature, and a couple of Richard Strauss throwaways in between—might suggest dispensable frivolity. But everything here is so perfectly chosen and performed with such style and brio that it becomes impossible to dismiss.

And then what are we to make of side two? The first track is an unlikely set of American folk songs—entitled Rippy Toe Ray, Cotton Eye Joe, and Candy Girl—that have been elaborately, succinctly, and anonymously arranged. This is followed by short pieces by the flower of Eastern Europe's younger generation of composers, including a meditative work of the avant-garde; apparently minimalism and the new simplicity have spread even to the Soviet avant-garde; apparently minimalism and the new simplicity have been associated with the Soviet avant-garde; apparently minimalism and the new simplicity have spread even to the Soviet Union."

"Concert After the Concert" is a case of eating your kitch and having it too. Gidon Kremer manages to make even the old-fashioned violin encores sound new and fresh. And, oh my, the playing! This is the violin at its greatest. The piano playing is also good, and the sound is good all around.

—Eric Saltzman


Performance: Disciplined Recording: Tops

This most classical and formally orthodox of the Shostakovich symphonies gets a marvelously just recording here in terms of capturing the orchestral sonority and texture, but Lorin Maazel's reading seems rather too inhibited. It has neither the elemental impetuosity of Leonard Bernstein's two recordings with the New York Philharmonic (analog in 1959, digital in 1980) nor the broadly lyrical sweep of Maxim Shostakovich's Melodiya/Angel recording (a reading that suggests this symphony could occupy a place in the Soviet repertoire comparable to that of the Sibelius Second in Finland as a work to be played on special state occasions). Although the Cleveland Orchestra plays with flawless discipline and finesse, and although the sonics are a superb example of the "purist" approach, musically this record left me unmoved. D.H.
which at least some of his singers have proved themselves capable.

This is Placido Domingo's third Verdi Requiem—he may have done more, but I am beginning to lose count. A consistently dependable singer, he is the only one among the soloists here who intones the opening "Kyrie eleison" firmly on pitch. Later on, he finds just the right kind of rapt mezzos for the "Hostias," and his "Ingegucio" is one of the set's highlights. Montserrat Caballé is less consistent. She delivers some stunning pianissimo phrases ("Salvame fons pietatis," for one), only to turn unsteady and under pitch in the opening measures of the Libera Me, then recovering for the andante section ("Requiem aeternam"), which she does ravishingly. The other two soloists are not quite in their league. Bianca Berini is a competent and musical singer who lacks strength of tone for the low-lying phrases. Paul Plishka's bass is plush and resonant, but he tends to lose focus. He serves the music well, but will not satisfy listeners who remember how Pinza and Ghiaurov sang those noble lines. It all adds up to an earnest but unmemorable recording.

G.J.

COLLECTIONS

IRMGARD SEEFRIED: Lieder Recital (see Going on Record, page 58)

RECORDING OF SPECIAL MERIT


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S.L.

KIRI TE KANAWA: Song Recital (see Going on Record, page 58)

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MARCH 1982

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Those strange rumblings in Opryland come from the White Animals, the first New Wave (?) band from Nashville. I saw a fledgling version of this outfit about four years ago playing Sixties oldies in a little bar that brought new meaning to the words "low dive with continuous entertainment." At the time, I thought they were weird but great. Now comes a White Animals twelve-inch, six-song EP called "Nashville Babylon" (Dread Beat NR 13161, $3.98), and I do not have to revise my opinion. The basic sound is a mutated admixture of classic garage punk with dub reggae, and if you can imagine the Syndicate of Sound produced by Lee Perry, you’ll have an inkling of what these guys are up to. The EP contains a couple of sharp originals, a psychedelic rave-up of the venerable Tobacco Road, and a nicely reverent cover of the Yardbirds’ For Your Love. It’s a trifle underproduced for my taste, but evocatively sweaty nonetheless, and I’d like to hear some more. Available from Dread Beat Records, P.O. Box 121356, Nashville, Tennessee 37212. —S.S.

The first of this month’s batch of rock chronicles is Rock Record, by Terry Hounsome and Tim Chambre (Facts on File, $9.95). An interesting effort, actually, even if its authors are almost as free with exclamation points as I am from time to time. The cover shouts, for example, "4,500 recording artists! 25,000 musicians! 30,000 record albums! Everything you ever wanted to know about damn near every rock record ever made—ever!" Pretty snappy stuff, the authors could have written ad copy for Cecil B. DeMille. But this is an extremely ambitious reference work, an almost frighteningly detailed discography of the entire history of recorded rock running from A. B. Sky, the first entry, to Zebra, the last (and don’t worry, I never heard of either one of them either). It’s extensively cross-referenced, just the thing for those who can’t remember when their favorite obscure album was released (or where). As might be expected with a project of this scope (526 pages and very small print), there are a fair number of glaring omissions, typos, and general inaccuracy, but it’s a worthwhile book, if only because nobody has ever attempted its like before. Kudos (and a vacation, if possible) to the authors.

Similarly obsessive, but considerably more fun, is Surf’s Up! The Beach Boys on Record 1961-1981 by Brad Elliot (by mail from Pierian Press, P.O. Box 1808, Ann Arbor, Mich 48106, $17.95). The bulk of the book is made up of "a chronological discography of the American records the Beach Boys have been associated with as performers, writers, and producers," and the research, as far as this lapsid Beach Boys fan can determine, is pretty much flawless. Elliot seems to have gotten everything. He’s interviewed old Capitol Records staff engineers, session musicians, the Beach Boys themselves, he debunks various myths; he explains why a band with one of the largest catalogs of unreleased material has been so rarely bootlegged, and in general he tells you more than you’ll ever need to know. Lots of great illustrations too (some of those old singles sleeves are priceless). The perfect companion to a genuine mono pressing of "Summer Days (and Summer Nights)."

Finally, there’s The Year in Rock 1981-82, edited by John Swenson (Deliah, $12.95). About half the material here is new (written especially for the book, that is); the rest is culled from the pages of Musician, which for my money is far and away the best rock-oriented magazine on the market today, perhaps even the best since the glory days (circa 1970) of the old Creem. There are intelligent essays on genres (AOR rock, country), individual performers (Pat Benatar, Joe Ely), and various local scenes both here and abroad (Van Gosses on the New Psychedelics is one of the sharpest pieces of sociomusicology I’ve read in some time). But the most valuable stuff is the interviews, which are uniformly excellent: thoughtful, probing, and provocative. There’s a fascinating conversation with Brian Eno, for example, a lively discussion between Robert Fripp and the Clash’s Joe Strummer, a hilarious session with Steely Dan’s Becker and Fagen, plus some chats with Tom Petty, Bill Wyman, and Lindsey Buckingham where all the right questions get asked. First-rate stuff, highly recommended, and worlds better than the competing Rock Yearbook reviewed last month. —S.S.

Question: what do Gilbert and Sullivan, the Three Stooges, and Meat Loaf (the singer, not the dinner) have in common? Answer: Karla De Vinci Ms. De Vinci, of course, first came to national attention as the stage foil for Mr. Loaf during his “Bat Out of Hell” tour. When I met her, however, she was finishing her run as Linda Ronstadt’s replacement in the Broadway version of G & S Pirates of Penzance and gearing up to hype her new
Epic album "Is This a Cool World or What?". As for the Stooges, more later.

We chatted in a conference room at CBS, where I discovered that Ms. DeVito is considerably shorter than she appears on stage (then again, so am I). Not conventionally pretty, she is nevertheless attractive in a pixie-ish way, and she has a particularly winning smile. She is also one of the most genuinely nice people I've ever interviewed. So, naturally, stinker that I am, I led off with an unpleasant question: How come your album contains yet another cover version of John Fogerty's "Almost Saturday Night"? Hasn't it been done to death?

She shook her head. "I could cry about that," she confessed. "That is like the most sore subject of the whole record. Actually, Fogerty's version is definitive, as far as I'm concerned. I mean, I always loved Creedence, and his voice is unlike anything else. Anyway, when I was recording the album, I knew Rick Nelson was doing it, and then I heard part of his version and I said, 'I don't care, I'll do it anyway, because the song is too great and he blew it' (and I love Rick Nelson). Then the Searchers came out with one, and even that didn't come near what I thought it should be. But then when I heard Dave Edmunds' version, it was like 'Get out the razor blades. Let's use the song for dental floss.' And it was all my fault, because my record would have been out long before if I hadn't taken the Pirates gig."

I told her I was most impressed with the ease with which she handled the vocal part in "Pirates," particularly in the more florid reaches that had given Linda Ronstadt trouble. Where did a self-styled rocker learn how to do that stuff?

"It was from the Three Stooges," she said. "There was this one woman who happens to be in a couple of Stooges movies, and in one of them Curly was dressed up as Senorita Cucaracha, and they were trying to make some money. And they had this record playing, and Curly was faking it to the record, pretending he was an opera star. And then the record broke, and this blonde woman, who happened to be a real opera singer, I think, ended up doing it. And that's where I learned how to use a vibrato in high-school choir. I always sang the alto parts, 'cause they're the most interesting. The soprano is always the boring melody. And I used to do joke opera to amuse my friends:"

I had read in other interviews that her first performing experience had been imitating Grace Slick (White Rabbit) in a high-school band. Somehow, though, she had been sidetracked out of rock and into theater. How come?

"I just didn't know how to go about it," she shrugged. "I mean, you don't go to college to learn rock-and-roll. The reason I left theater, about 1975, was because I felt what went on there didn't apply to me. The whole circuit around it too—the cabaret scene was very big then. I love singing those songs, but it just didn't apply. Now Red Rubber Ball, Midnight Confessions, those songs made sense to me. The people who were writing for theater, for musicals, weren't writing anything that had to do with me."

The thing that really set me off was going to see the Ramones at CBGB's. That's when I realized I didn't have to go to the Berklee School of Music to rock-and-roll. All my music teachers had known up till that time were saying things like 'If you don't know your theory, don't bother, honey. Stick to poetry.' But the Ramones—a three-chords, 1-2-3-4 and Boom! Just do it. And that was so energetic and powerful, I just said, 'Whew, I gotta get involved!' And so she did, going on the road with Meat Loaf for the better part of a year. "It was better than joining the Navy," she told me. "I got to see the world and I got training." —S.S.

Disc and Tape Reviews

By CHRI$ ALBERTSON • NOEL COPPAGE • PHYL GARLAND • PAUL KRESH
MARK PEEL • PETER REILLY • STEVE SIMELS • JOEL VANCE

© = stereo cassette • © = digital-master recording • © = quadraphonic disc
© = eight-track stereo cartridge • © = direct-to-disc • © = monophonic recording

The first listing is the one reviewed. Other formats, if available, follow.

BEE GEES: Living Eyes. Bee Gees (vocals, guitars); instrumental accompaniment. Living Eyes: He's a Liar; Paradise; Soldiers; Wildflower; Cryin' Every Day, and four others. RSO RX-1-3098 $8.98, © CTX-1-3098 $8.98, © 8TX-1-3098 $8.98. Performance: Getting back. Recording: Very good.

This finds the Bee Gees wending their way back from the disco grave site, at times hip deep in the weeds that are already growing there. Back to where, though? Their roots? Well, sort of. Robin is turned loose on a few throwbacks to the crying songs, and the old priorities—pretty melodies and tight, brotherly harmonies—are raised again. And not until the last song on side one does Barry give in to his falsetto obsession, so they're also almost into their post-Chipmunks period. This isn't as good as "Life in a Tin Can," but it should remind you more of that album than any other. When it's good, as in the title cut and Be Who You Are, it temporarily restores my early faith in the Gibb boys. I Still Love You and Nothing Could Be Good, though, have plastic, store-bought melodies, and He's a Liar suggests once again that the boys tend to get lost when they try to harden up a song without the distancing gadgets built into disco. That still leaves some good soft ones, though, in which they do what they do best. —N.C.


Angela Bofill is being brought along to mainstream pop stardom with a lot of restraint and intelligence. Her talent was ob-
MARTIN BRILEY'S talents, as displayed in his debut Mercury solo album, "Fear of the Unknown," bring to mind that classic line from science-fiction B-movies, "Think of all that power used for evil—Good Lord, the consequences!" He is a generously gifted songwriter but almost frighteningly misanthropic. The album is a marvel, but you may not want to hear it very often if you're the kind of person who pays close attention to lyrics.

Briley, a Briton residing in the U.S. since 1977, was a busy studio musician in England and a member of Greenslade, an art-rock group active in the mid-Seventies. Since relocating, he's played bass on road tours with Ian Hunter and Mick Ronson, and he was Ellen Foley's musical director. His songs have been recorded by Pat Benatar (Take It Any Way You Want It) and Karla DeVito (I'm Just Using You). He freely admits to being cynical, with the cynicism's excuse that people are hypocrites and that his songs have little to do with his personal life and are merely author's fancies. For instance, the sleazy, strange I Feel Like a Milkshake features a tired man who stagers into a diner where a sexy waitress spills food in his lap, then attempts to seduce him while her husband, the cook, throws hamburgers at the walls. The man tips lavishly "so they wouldn't think the English are mean" (cheap) and stagers out into the night. He imagines God as "that Great Soda-Jerk in the sky," a diner proprietor who can't get food deliveries. Then there's Briley's ugly but apt description of a spoiled, sheltered young woman: "You were gonna stand still/And make the mountain move/Tomorrow's juice on your breakfast tray/And the world was your bidet." And here's Briley on lovers growing old together: "Too weak to hold a fork and spoon/Too dumb to recognize the room/Would you pull the plug and cut the juice?"

What makes Briley's talent insidious is the deceptively attractive presentation of these gloomy sentiments. His melodies, tempos, and arrangements have the bounce and sparkle of sunshine love songs on Top 40 AM radio. Briley is a highly accomplished musician and arranger who knows how to use pop conventions for his own purposes. The contrast between the bright tunes and the dark lyrics makes his songs intriguing and disturbing.

Martin Briley is remarkable, though I wouldn't suggest you listen to him if you're going through emotional turmoil. He claims that his songs have little to do with his personal life and are merely author's fancies. "Reality is not interesting enough to sustain for three minutes," he says. Whether these songs are autobiography or fantasy, he certainly has a wonderful and terrible ability to describe the tip of each flame in the fires of someone's personal hell. —Joel Vance

MARTIN BRILEY: Fear of the Unknown. Martin Briley (vocals, guitar, bass, percussion); vocal and instrumental accompaniment. Slipping Away; The Man I Feel; I Feel Like a Milkshake; First to Know; Heart of Life; A Little Knowledge Is a Dangerous Thing; I Don't Feel Better; More of the Same; One Step Behind; Fear of the Unknown. MERCURY SRM-1-4026 $8.98, © MCR-4-1-4026 $8.98.

THE CARS: Shake It Up. The Cars (vocals and instrumens). Since You're Gone; Shake It Up, I'm Not the One; Victim of Love; Cruisers; and four others. ELEKTRA SE-567 $8.98, © SC-567 $8.98, © STS-567 $8.98.

ELVIS COSTELLO: Almost Blue. Elvis Costello (vocals, guitar), the Attractions (instruments). Why Don't You Love Me (Like You Used to Do); Sweet Dreams; Success; I'm Your Toy (Hot Burrito #1); Tonight the Battle Let Me Down; Brown to Blue; A Good Year for the Roses, Too Far Gone; and four others. COLUMBIA FC-37552, © FC-37552, © FC-37552, © FCA-37552, © FCT-37552, no list price.

Performance Embarrassing Recording Adequate

Elvis Costello's "country album" is a pure-dee disaster. I can just picture some of the reaction to this turkey in Tootsie's Orchid Lounge and countless roadhouses. Some old
boy is liable to put his boot through the jukebox, among other things. Costello made the apparently commonplace assumption (it was common enough in the movie Nashville anyway) that anybody can come in cold and perform country music—and it blew up, I'm happy to report, right in his face. Time after time he proves he doesn't really understand what this music is all about. You can also learn—if you get trapped into listening to the thing—something his other albums have only suggested: Elvis can't sing. He can get by, sticking with things like Pump It Up, where he has to hold pitch for only a quarter-note at a time, but these country songs take him into a realm where grunting and posing aren't enough. Pickin' and grinnin' ain't so simple. The Attractions seem as lost as he is, except for some decent piano fills by Steve Neive. Like a typical inept country band, they rely on the pedal steel—played by nonmember John McFee—to cover up the mess they're making, and McFee is only passable. It says on the jacket that Billy Sherrill produced it. Now, I have a hard time picturing that, but it works if I imagine Billy with his hands over his ears the whole time. Ye gods, this is awful.

N.C.

KARLA DEVITO: Is This a Cool World or What? Karla DeVito (vocals); vocal and instrumental accompaniment. Cool World; I Can't Stand to Reminisce; Heaven Can Wait; Midnight Confession; Big Idea; Almost Saturday Night; and six others. EPIC NFE 37014, © NET 37014, no list price.

Performance: Overdone
Recording: Dito

To be fair, I can't completely dismiss a record that includes a quote from Maynard G. Krebs on the inner sleeve, but in this case I'd really like to try. Karla DeVito is a terrific singer and performer, cute as a bug's ear, and one heck of a swell human being, but she has what sounds like a terminal case of Steinman's Disease. That is, her idea (or her producer's idea) of rock-and-roll is the overblown, overarranged, over-the-top theatrical exaggeration perfected by Jim Steinman, heard previously and to agonizing effect on his own record and on those by Meat Loaf. Here, for example, is Heaven Can Wait, a truly ghastly teenage ballad Steinman ripped off from what Bruce Springsteen left out of Thunder Road. The rest of the record—which, truth be told, does contain some potentially interesting material by the likes of Randy Newman, John Fogerty, and even Ms. DeVito herself—is similarly Steinmanesque aural overkill. Our heroine yowls over all this with a certain spunk and charm, but mostly the effect is akin to Kate Smith singing God Bless America over a Led Zeppelin backing track: in a word, preposterous.

S.S.

NEIL DIAMOND: On the Way to the Sky. Neil Diamond (vocals); instrumental accompaniment. Yesterday's Songs; Only You; Save Me; Be Mine Tonight; and seven others. COLUMBIA TC 37628, © TCT 37628, © TCA 37628, no list price.

Performance: Moony
Recording: Very good

Neil Diamond doesn't just sing into a microphone; he purrs into it, he swoons over it,
he makes love to it. The seductive singing style he favors is matched by the contents of these ballads, mostly his own, of which the gist can be summed up in a line from one of them: "Yesterday's blues/May be yesterday's news/But the good things will stay the same." In only one of them, the Rainy Day Song on which he collaborated with Gilbert Becaud, is there a theme that transcends the simple one of old-fashioned, crooning courtship. Despite his continuing popularity, Neil Diamond's music and the method he uses to disseminate it may be getting just a tiny bit outmoded. Not all the good things stay the same.

EARTH, WIND & FIRE: Raise! Earth, Wind & Fire (vocals and instrumentals). Let's Groove; Lady Sun; Kalimba Tree; My Love; Evolution Orange; and four others. Columbia/ARC TC 37548, © TCT 37548, © TCA 37548, no list price.

Performance: Windy
Recording: Very good

Earth, Wind & Fire has been around for over a decade. It has an enviable string of hits under its belt, and it has garnered such a large and loyal following that it seems to have earned the right to an occasional artistic misjudgment like participation in the unspeakably bad Sgt. Pepper's Lonely Hearts Club Band film. But "Raise!" reflects not so much poor artistic judgment as it does a general feeling of having reached a dead end. Sure, the energy seems to be intact. As a band EW&F still performs with precision, and the characteristic blend of falsetto harmony and raw, unmusical vocal utterances continues to give it a strong identity. But the album that spawned the hit single Let's Groove is formula-ridden and terribly repetitious. Although it is delivered skillfully, it lacks the spirit of such previous releases as "Head to the Sky" and "Spirit."

All things considered, Earth, Wind & Fire remains one of the best bands in this genre, but leader Maurice White should beware of complacency.

DAVID GRISMAN: Mondo Mando. David Grisman (mandolin, mandola). Mike Marshall (mandolin, guitar). Darol Anger (fiddle). Rob Wasserman (bass); other musicians Cedar Hill; Dawg Funk; Japan; Fanny Hill; Anouman; and three others. Warner Bros. BSK 3618 $8.98, © MS 3618 $8.98.

Performance: Very good
Recording: Good

For some reason, there is none of the usual guitar work by Mark O'Connor here. O'Connor fiddles on two cuts, but the guitar is turned over to Mike Marshall and, a couple of times, to dawg-music (and bluegrass) alumnus Tony Rice. It doesn't make a huge difference, you understand; Rice's flat-picking style goes very well with the opening cut, Cedar Hill. But the album is, as the title suggests, more mandolin-dominated than usual for Grisman's group, and the songs tend to blur together in your mind even more than his earlier ones did. You have to be a real dawg lover to stay perky through the whole thing. Ideally, you should hear this one cut at a time; there is good stuff here, but too much of it can dull the senses. I particularly like the subtle flavoring of Japan and the moody treatment of Django Reinhardt's Anouman, which has the nice side effect of slowing down all that musicianship so a person can catch a little more of it.

THE ISLEY BROTHERS: Inside You. The Isley Brothers (vocals and instrumentals). Inside You; Don't Hold Back; Your Love, Love Zone; and four others. T-Neck FZ 37533, © FZT 37533, © FZA 37533, no list price.

Performance: Solid soul fare
Recording: Good

It has been more than twenty years since the Isley Brothers had their first hit single, "Shout," and almost as long since they made their second, "Twist and Shout." Now, several hits, misses, comebacks, and labels later, the brothers—up to five from the original three—prove that some things just get better with age. "Inside You" is the provocative title both of their newest album on T-Neck (the label they started in 1969) and of a single that climbed onto the charts soon after its release. Except for Love Zone, which gets the funk up a bit, this is a mel- low, low-key set of eight tunes, all but one written by the group. I rather like it, but those Las Vegas glitter-cowboy outfits on the jacket have got to go.

MILLIE JACKSON: Just a Lil' Bit Country. Millie Jackson (vocals); instrumental and vocal accompaniment. I Can't Stop Loving You; Rose Colored Glasses; I Laughed a Lot; Pick Me Up On Your Way Down; Loving You; and five others. Sugar SP-1-6732 $8.98, © CT-1-6732 $8.98, © 8T-1-6732 $8.98.

Performance: Clean Millie . . . almost Recording: Good

Millie Jackson's "Just a Lil' Bit Country" isn't your average farm fare, but most of the tunes do come from the country repertoire. Jackson, who first attracted attention some ten years ago with A Child of God, has a fine voice and the skill to use it. What often mars her performances, however, is her penchant for crude, base material that seems designed more to shock than to entertain. Non-singers like Grace Jones and Betty Davis need such gimmickry to get across, but Millie Jackson does not. She is a real singer, and she proves it once again on this album, which includes only one track of questionable taste, the gratuitous Anything That Don't Like Millie Jackson. If anyone can offer a reasonable explanation of why she chose to record it, I'd like to hear them.
an artist who caresses every note of Neil Diamond's Love on the Rocks, who herself wrote and here beautifully performs Loving You, a very pretty ballad, has to stoop to the level of the off-camera Red Foxx, I wish they would let me in on it. C.A.

THE JACKSONS: Live. The Jacksons (vocals and instrumentals); instrumental accompaniment. Can You Feel It; Things I Do for You; Off the Wall; Ben; Heartbreak Hotel; She's Out of My Life, ABC; I Want You Back; and six others. Epic KE 237545, © EIT 37455, © EZA 37455, no list price.

Performance: Captures their spirit Recording: Satisfactory

When musical prodigies in any genre grow up, they encounter the challenge of proving their artistic worth to those who no longer admire them simply because they are novel or cute. The Jacksons, whom we once knew as the Jackson Five (with some intermediate changes in personnel), have weathered that transition with exceptional aplomb. This double album, recorded at various live performances, enables us to make an assessment of their adult accomplishment, and it is considerable. They are so polished as performers that their act appears seamless. Each number blends smoothly into the next.

Each middle-aged man could keep up the pace; the songs all but dance off the vinyl. The Jacksons are comfortable with the high points of the group's career as well as Michael's solo efforts. One particularly nostalgic segment voices the idea of Van Sullivan from the Jacksons' first television appearance. They've come a long way since then, but their boyishly appealing glow remains un tarnished. P.G.

GARLAND JEFFREYS: Rock and Roll Adult. Garland Jeffreys (vocals); the Rumour (vocal and instrumental accompaniment). Wild in the Streets; 96 Tears; I May Not Be Your Kind; Maitador; R.O.C.K., and three others. Epic FC 37436, © FET 37436, no list price.

Performance: Intense but uneven Recording: Very good

"Rock and Roll Adult" is a faltering step forward in the two-steps forward, one-step back career of Garland Jeffreys. Recorded live last spring, mostly at New York's Ritz club, with the premiere back-up band of the Eighties, the Rumour, the album is by turns convincing and revealing, mannered and self-indulgent. More than anything else, though, it is an emotionally honest, an example of what Jeffreys has called "exorcising my demons." The problems and contradictions that doing this creates seem to come together in Cool Down Boy, a thirteen-minute encore in which Jeffreys wrestles with the ghosts of his Brooklyn boyhood. It moves from a mope of furious rock choruses to a discursive narrative that climaxes in a brief, ugly encounter between Jeffreys and his father. While the raw brutality of Jeffreys' re-creation is meant to give force to the message—rock-and-roll as escape from the ennui of growing up—the confrontation is so startling and strong that the rest of the song (another five minutes) collapses from exhaustion. So does Jeffreys, giving over long stretches of the remaining time to his audience. Cool Down Boy was unquestionably a moving experience in concert, but it's hard to imagine wanting to play it more than once or twice if you're obsessed by some lurking demons of your own. It's just impossible to turn such emotion on and off with the ease of flipping a light switch.

In addition to taking on his past, Jeffreys squares off with some of his classic material. The results are mixed. Wild in the Streets suffers here from excessive posturing, and Maitador is too cerebral for this kind of form. But most of the rest—"I May Not Be Your Kind, R.O.C.K., Bound to Get Ahead Someday, and 96 Tears—shows what a unique mixture of soul and sinew Jeffreys has when he is in top form. M.P.

GEORGE JONES: Same Ole Me (see Best of the Month, page 79)

K.C. AND THE SUNSHINE BAND: The Painter. K.C. and the Sunshine Band (vocals and instrumentals). It Happens Every Night; Go Now; The Painter; Sway, All Through the Night; Something's Happening; and five others. Epic FC 37490, © FET 37490, © FEA 37490, no list price.

Performance: Sunny Recording: Terrific

I like K.C. and the Sunshine Band. Their music is always bright-sounding, good-hearted, and terrifically listenable. On "The Painter," H. W. Casey and his large back-up group give us some fake funk, several fun dance selections (such as Summer Nights) with its freewheeling vocals, an unexpected foray into electronics in Don't Say No (which has the album's most interesting instrumental), and a straight, laid-back reading of Van McCoy's Baby, I'm Yours. On several of the numbers Casey gives his falsetto a rest and tries a little soul searching with his pleasant baritone.

As always with Sunshine releases, the new songs are not very interesting in themselves. But those of the oldies, like Steve Ferrone/Bruce Roberts' ballad All Through The Night sounds like a classic in this company. The sound, however, is brilliant and beautifully balanced, and there's no stinting on either the varied and apt arrangements or the production. These guys may not be creating great pop music, but they work hard to please. —Irv Cohn

KISS: (Music from) The Elder. Kiss (vocals and instrumental accompaniment); vocal and instrumental instrumental accompaniment. The Oath; Fanfare: Just a Boy, Dark Light; Only You; Under the Rose, and five others. Casablanca NBL 7261 $8.98, © NBL5 7261 $8.98, © NBL8 7261 $8.98.

Performance: Nerve-wracking Recording: A studio blitzkrieg

A new release from Kiss invariably sends critics hurrying to the thesaurus for new ways of calling the group abominable, atro -cious, dreadful, egregious, and so on. Don't expect "(Music from) The Elder" to provoke any other kind of reaction. This is a concept album— if you use the term "concept" very loosely. The context is an indefinite time in which everyone talks and dresses as if in a novel by Sir Walter Scott. (Continued on page 103)
Scrutinizing Entwistle

The title song of John Entwistle's new Atco album, "Too Late the Hero," is about that prize psychological discovery of the late Seventies, the mid-life crisis. It is more fun than Gail Sheehy's prose in her book on the subject, and it goes with the way Entwistle looks in the cover photos, the very picture of an aging rock star. The song is about looking back over one's relative lack of accomplishments in life and reflecting on how different it was supposed to be according to the movies. Entwistle, unlike other writers on the subject, gives it more of a wry than dire tone, and look at what may be its less attractive side. Re-examining the work of the Who in the light suggests that Entwistle may have had more influence than we suspected on rock as we know it. Stuck as I am in a world given to taking itself too seriously, I certainly hope so.

Noel Coppage

JOHN ENTWISTLE: Too Late the Hero. John Entwistle (vocals, bass, keyboards); Joe Walsh (guitar, keyboards); Joe Vitale (drums, keyboards); Billy Nicholls (backup vocals). Try Me; Talk Dirty; Lovebird; Sleepin' Man; I'm Coming Back; Dancin' Master; Fallen Angel; Love Is a Heart Attack breezily asserts that love can kill you, Sleepin' Man toys whimsically with the symbol it has set up, as if what Entwistle would really like to do is make fun of symbolism itself, and Dancin' Master, cheerfully alluding to the way dancing has been rammed down people's throats in recent years, pauses in the middle to parody disco.

For all this Entwistle has found himself two pretty sympathetic sidemen, Joe Walsh of the Eagles, another free spirit known to have a satirical turn of mind, and percussionist Joe Vitale; some pretty savvy rock gets played, some of it reminiscent of the sound of the early Who. But I don't want to give you the idea that there are a lot of obvious jokes here. The album works on your impressions, and you tot up sums of this tone and that attitude. I don't want to give you the impression that it's an unqualified success either. The first two songs, Try Me and Talk Dirty, don't have much melody propelling them, and the guttural back-up sounds, though appropriate for the vulgarity of the subjects, hardly soothes the savage breast. These don't get things off to much of a start, but Lovebird, a straight and somewhat softer rock song, is a good one, and things don't let down too much from there on out.

Better still, the record offers some relief from the blandness being committed all around us in the name of pop music these days. There's nothing radical about it—you couldn't just sit there, numb, and absorb it the way you do Supertramp—but if you want to have your feelings tugged a little in unusual directions it can do that, and if you want to (God of the Eighties forgive me) think about what's in a song, there are the makings of some ideas here. And I'll thank you young squirts not to laugh; we music lovers routinely did that sort of thing back in the Sixties.

I wouldn't presume to formulate a psychological profile of John Entwistle based upon this release and the other bits and pieces, but it seems safe to say there's a healthy skepticism still operating in him, as well as a disposition to turn a subject over and look at what may be its less attractive side. Re-examining the work of the Who in that light suggests that Entwistle may have had more influence than we suspected on . . . well, on rock as we know it. Stuck as I am in a world given to taking itself too seriously, I certainly hope so.
There’s quite a bit of lip service paid to even a passable stab at a fantasy comic. There’s no furious battle, no resolution. We make a session. He starts thinking positively and using such words as “hell” and “balls.” He makes a lot of promises. And that’s it. There’s no furious battle, no resolution. We never even meet the evil force.

Never mind that this is bad music. It isn’t even a passable stab at a fantasy comic book. Not even the bizarre involvement of Lou Reed, who wrote two vulgar yet formulaic songs for it, can inject any starch into this impotent album. There’s nothing gettable songs for it, can inject any starch into this impotent album. There’s nothing.

THE KNACK: Round Trip. The Knack (vocals and instrumetns). Radiating Love, Soul Kissin'; Africa; She Likes the Beat; Just Wait and See; We Are Waiting; and six others. CAPITOL ST-12168 $8.98, © 8XT-12168 $8.98.

Performance Pathetic
Recording Very good

Ah, yes, the Knack. From overnight platinum superstars to embarrassing has-beens in less than two years. What a story. It’s supremely satisfying, actually, at least the courage of its convictions: it was at least the courage of its convictions: it was

one is the final nail in the coffin. With a real

You subscribe to the idea that everybody

M.P.


Performance Nothing special
Recording Okay

Are you ready for retro-disco? I’m a fan of disco, so trust me when I say that this al-

MARCH 1982
Frank Sinatra's first new album since the "Trilogy" monster of two years ago is called "She Shot Me Down," the title presumably deriving from Sonny Bono's "Bang Bang (My Baby Shot Me Down)," presumably deriving from Sonny Bono's "She Shot Me Down," the title as the one on the jacket: Mabel Mercer.

It is a familiar part of the Sinatra story that he learned from Tommy Dorsey how to sustain and shape a musical phrase, including a couple of characteristically eloquent carry-overs, the album is memorable and treasurable not for what he does with melodies but for what he does with words. There are lots of good words done with melodies but for what he does with words. There are lots of good words too, most notably those of Loonis McGlohon for Alec Wilder's A Long Night and Sondheim's for his Good Thing Going, always present in his work is the nice edge of humor and lightness. He seems to be having fun no matter how intense the material, especially in his genial looseness more evident than in his rip-roaring run-through here of the 1965 hit "Let's Hang On" (for which he obligingly provides the twentysomething band). The rhythm-track arrangements in the lyrics, making a virtue of a deficiency. He is now more baritone than baritone, and some of these songs might have been sung more comfortably in lower keys. But he still commands a good two octaves, and at the end of the concluding medley, after having reached for and gotten a high F-sharp, he makes an astonishing glide down to a basso E-flat! Some singer!

—Henry Pleasants

FRANK SINATRA: She Shot Me Down. Frank Sinatra (vocals); orchestra. Good Thing Going; Hey Look, No Crying; Thanks for the Memory; Bang Bang; Baby Shot Me Down; Monday Morning Quarterback; South—to a Warmer Place; I Loved Her; The Gal That Got Away; It Never Entered My Mind. REPRISE FS 2305 $8.98, © CS 19306 $8.98, © TP 19306 $8.98.

Performance: Good
Recording: Good

Frank Sinatra is a good guitarist, all right, but with two exceptions this album suffers from overly predictable material, particularly "Can't Stop," a medium-tempo number with a vocal hook that reminds me of both Exile's "Kiss You All Over" and Ace's "How Long." Lee's fervent solo suggests there's some real emotion going on inside him. Too bad the rest of the album doesn't measure up.

J.V.

RECORDING OF SPECIAL MERIT

BARRY MANILOW: If I Should Love Again. Barry Manilow (vocals, piano); orchestra. The Old Songs; Let's Hang On; Break Down the Door; Fools Get Lucky; No Other Love; and five others. ARISTA AL 9573 $8.98, © ACR 9573 $8.98.

Performance: Excellent
Recording: Very good

Say what you will about Barry Manilow—and just about everyone has, including the pop elitists who claim that while Manilow may be all right, they just wouldn't want their kid sisters to go to one of his concerts—you have to admit he has the true pop touch. Even in such hard-breathing efforts as his own "I Haven't Changed the Songs," or "I Should Love Again," there's a nice edge of humor and lightness. He seems to be having fun no matter how intense the material. Always present in his work is the joy of a musician making music, his music, and to hell with the critics.

Never has Manilow's genial looseness more evident than in his rip-roaring run-through here of the 1965 hit "Let's Hang On" (for which he obligingly provides the twentysomething band). The rhythm-track arrangements in several of the songs are, as usual, models for the best in mainstream pop today. Unlike many of his contemporaries, Manilow never

bum sounds like three-year-old stuff that's been left in a drawer. Even disco enthusiasts will agree that the genre needs freshening up to compete with other dance-oriented music these days. Nobody told Kool, apparently. These are nearly all monotonous, thumpy productions of songs about steppin' out an' gettin' down. No Show is the one exception. With its clever lyric and inventive arrangement, it soars above the rest. Lead singer James "J.T." Taylor is as smooth and easy as ever. His Nat Cole warmth, especially in ballads, deserves to be nurtured, but the Gang desperately needs a new musical perspective.

—Irv Cohn

ALVIN LEE: RX5. Alvin Lee (vocals, guitar); vocal and instrumental accompaniment. Hang On; Can't Stop; Nutbush City Limits; Fool No More, Double Lover, and five others. ATLANTIC SD 19306 $8.98.

Performance: Good
Recording: Good

Frank Sinatra's first new album since the "Trilogy" monster of two years ago is called "She Shot Me Down," the title presumably deriving from Sonny Bono's "Bang Bang (My Baby Shot Me Down)," which rounds off side one. But on the jacket: Mabel Mercer. Her name loomed as large in my mind's eye and the loneliness of the aftermaths, another wistful recollection of loves that didn't last tenths. Yet, as I listened to this sequence of other or to indicate the character of the contents, but not with as much of either as I remember from the telecast. Listening to Mercer on records was never as moving and enthralling an experience as catching her at work in a small room. Much of her artistic magic emanated from her presence. Sinatra has made better records than Mercer, but he too is quintessentially a public performer. Without his visible, vibrant presence, his facial expressions and gestures, something is missing.

Still, the new album is vocally fascinating, with a sound hardly credible from a singer who has lived as long and sung as much as Sinatra has. One might say the same of the late records of Bing Crosby, Perry Como, and Fred Astaire, but they never gave their voices the hard usage Sinatra has given his. His basic pitch has fallen, as it does with all aging singers, and there is audible strain on the baritone E-flat, E, and F. But Sinatra manages to work the strains into the lyrics, making a virtue of a deficiency. He is now more bass-baritone than baritone, and some of these songs might have been sung more comfortably in lower keys. But he still commands a good two octaves, and at the end of the concluding medley, after having reached for and gotten a high F-sharp, he makes an astonishing glide down to a basso E-flat! Some singer!

—Henry Pleasants

FRANK SINATRA: She Shot Me Down. Frank Sinatra (vocals); orchestra. Good Thing Going; Hey Look, No Crying; Thanks for the Memory; Bang Bang; My Baby Shot Me Down; Monday Morning Quarterback; South—to a Warmer Place; I Loved Her; The Gal That Got Away; It Never Entered My Mind. REPRISE FS 2305 $8.98, © F5 2305 $8.98.

Performance: Good
Recording: Good

Frank Sinatra is a good guitarist, all right, but with two exceptions this album suffers from overly predictable material, particularly 'Hang On' (written by band member Steve Gould) and Rock and Roll Guitar Picker (written by Lee). Tired song concepts tend to make a band sound tiresome. Things perk up notably with Lee's version of Tina Turner's 'Nutbush City Limits,' which is not as sexy as her original but is played and sung with the same aggressive swagger. The best track is Lee's own 'Can't Stop,' a medium-tempo number with a vocal hook that reminds me of both Exile's 'Kiss You All Over' and Ace's 'How Long.' Lee's fervent solo suggests there's some real emotion going on inside him. Too bad the rest of the album doesn't measure up.

J.V.
GARY NUMAN: Dance. Gary Numan (synthesizers); instrumental accompaniment. Slowewear to China; Night Talk; A Subway Called You; Cry the Clock Said; She’s Got Claws; Crash; Boys Like Me; and seven others. Arco SD 38-143 $8.98. © CSA 38-143 $8.98. © TP 38-143 $8.98.

Performance: Chilling

Recording: Excellent

Gary Numan’s “Dance” is one of the most disturbing yet fascinating albums I’ve ever heard. The music blends layers of oozing, tickling, almost biorythmic electronic sound with bizarre, disembodied vocals that expand upon David Bowie’s “Ziggy Stardust” concept. Numan’s unblinking vision looks out on a bleak, surreal landscape, a night world of reptilian emotions where men and women transact a desolate commerce: men as prostitutes among women who are cruel, bored, lonely. The lyrics retreat from fully shaped ideas, instead stringing together dark, puzzling, abrupt images. It’s as if Numan were unable or unwilling to make more than tentative stabs at coming to grips with his surroundings.

The album’s ironic title (it’s a single track here that is remotely danceable) comes from the running theme of dance as a metaphor for sex and love. There is something false, or at least artificial, about Numan’s vision, yet it seems more real than just about anything else I’ve heard recently.

To say that it is extreme, even one-dimensional, is to underestimate the case. That I like it I find surprising and sobering.

M P.

RECORDING OF SPECIAL MERIT

PENGUIN CAFE ORCHESTRA. Penguin Cafe Orchestra (instrumental): Air to a Bridge; Wilderness; Duff Dodds; Don’t Run; Paul’s Dance; Telephone and Rubber Band; Cutting Branches for Temporary Shelter; Pythagoras’ Trousers; Numbers 1-4, and seven others. Editions E.G. EGM 113 $8.98.

Performance: Spirited

Recording: Very good

This charming, almost hypnotic album suggests what might happen if a string group like David Grisman’s were plopped down in a rural English pub and piled with two or three rounds before they’d played a note. "Penguin Cafe Orchestra" might be classified as a modern-day tavern divertimento: a little swing, a little folk, a little rock, even a sprinkling of Cajun—and all a little spaced out. The compositions are clever, the solos inventive and full of surprises. The Penguins may not hit every note, but they go after them all with abandon and have a lot of fun in the chase. The tunes are played on a wide assortment of odd and oddly compatible instruments, including ukulele, telephone, ring modulator, rubber band, accordion, oboe, penny whistle, violin, and the more conventional guitar and piano.

(Continued on page 107)
Tim Hardin Remembered

The idea of someone literally killing himself for his art, his work, whatever one calls it, probably strikes the early Eighties as romantic nonsense. And maybe it is. Surely we were too romantic for our own good a decade or so ago, and romanticism just as surely has its perverse side in which self-destructiveness is somehow attractive. The late Tim Hardin made a wry comment about this in a song called Black Sheep Boy: "I'm the family's unowned boy/Golden curls of envied hair/Pretty girls with Boy/about this in a song called Black Sheep Boy. The late Tim Hardin made a wry comment about this in a song called Black Sheep Boy. The late Tim Hardin made a wry comment about this in a song called Black Sheep Boy. The late Tim Hardin made a wry comment about this in a song called Black Sheep Boy. The late Tim Hardin made a wry comment about this in a song called Black Sheep Boy.

But the "realism" of the Eighties has its perverse side too. Cynicism sticks to just as idealism stuck to all that romanticism we threw out, and cynicism is, of course, an excuse for doing nothing about anything.

Tim Hardin died of a heroin overdose in December 1980, the same month John Lennon was assassinated. That Hardin was a romantic was obvious in his work, as can be verified by listening to "The Tim Hardin Memorial Album," a new Polydor collection of some of his best-known songs. (All of Hardin's albums were out of print at the time of his death.) His work was not idealistic in narrow political terms but aesthetically, in the manner of Byron and Van Gogh; he had a passion for examining how people work, and therefore how the world does. And in the manner of Byron and Van Gogh and countless other romantics before him, he sought an edge. But, as we all know now, edges can cut.

That Hardin's death related directly to his art is, of course, not provable. But anyone who has worked in music and aspired to be something more than a hack knows that getting beyond yourself—which an artist inevitably attempts to do—is to get into scary territory. John Lennon had enough of a balance between cynicism and romanticism—and, up to a point, enough luck—to keep things in perspective and stay off hard drugs. But Hardin was, as you can hear in his singing voice, a tangle of vulnerability. The details of his addiction that have been made public are sketchy. At one point in England, where he was based for seven years starting in 1971, he was said to be taking a "sleep cure" for it. His life up to then had been what the Chinese would call interesting (as in the curse, "May you live in interesting times").

Tim Hardin was born in Oregon. His father was a bass player and later a real-estate salesman; his mother was concertmistress of the Portland Symphony. He was a bona fide descendent of the outlaw John Wesley Hardin. He served a hitch in the Marines, of all things. Indeed, the memorial album's liner notes (by PolyGram Records vice president Len Epand) say that Hardin's platoon corporal was, in the late Fifties, the first American casualty of what later became known as the Vietnam War.

Hardin made the folk scenes in Greenwich Village and Cambridge, and he pioneered the kind of thing Tim Buckley, John Martyn, and others were to take to their bosoms, a sort of merger of the folk and jazz sensibilities. The memorial album includes two songs from the album "Tim Hardin 4" (the last and poorest-selling one he made for Verve), How Long and Hello Baby, that offer some insight into how he came to embrace jazz phrasings by way of the blues. But his best songs—If I Were a Carpenter, Reason to Believe, Don't Make Promises, How Can We Hang On to a Dream, Lady Came from Baltimore—were expressions of the folk romanticism that helped define the late-Sixties American troubadours.

The memorial album's selections were recorded between 1966 and 1970, so the production isn't up to today's standards. But the songs remain fresh and poignant, and Hardin's own versions are definitive, although they never sold as well as other people's (Johnny Cash's Carpenter, Rod Stewart's Reason to Believe, etc.). His songs and his singing were all of a piece. Where other singers' voices flow out relaxed and maybe a trifle unconcerned, Hardin's sounded squeezed out, painfully, a raw spot scraped along every nuance. Yet he didn't ask for pity or even mercy; what he conveyed to you, by style as much as content, was that some other romantic out there knew how it felt.

There is something mystical about a high percentage of the relatively small number of songs Hardin left us. If we could talk precisely about it, I suppose there wouldn't be a need for music, but it probably has to do with poetic ambiguity. I can listen to some of his pieces for the hundredth time and still get new... what? Not ideas, exactly, and not exactly feelings either, but little twinges of something that contains elements of both. Nostalgia has little to do with it. The songs do evoke memories of what was happening when I first heard them, but that's only because both the stuff going on then and the songs made big impressions on me. The songs aren't about any other's stuff, though. They're about human nature and, for want of a better name, Something More.

Nowadays, at least on the surface, we seem to have deliberately unlearned the few things we learned at the time these songs were written. But that's not really the case. In some ways we have muddled toward a better understanding. We did impose some standards on occupants of the White House, and we no longer become violent about one another's haircuts, among other things. Tim Hardin was part of a milieu that did something for us, and individually he did a great deal for us. Maybe he tried to do too much.

—Noel Coppage

TIM HARDIN: Memorial Album. Tim Hardin (vocals, guitar), instrumental accompaniment. If I Were a Carpenter; Black Sheep Boy; Misty Roses, Green Rocky Road; How Long; Don't Make Promises; Smugglin' Man; Hello Baby; Reason to Believe; How Can We Hang On to a Dream, Lady Came from Baltimore. It'll Never Happen Again. POLYDOR PD-1-6333 $8.98, © CT-1-6333 $8.98, © ST-1-6333 $8.98.
record may be hard to come by, but it's worth the effort of tracking it down. There's plenty of lighthearted, engaging music here to reward the search.

M.P.

RUSH: Exit...Stage Left. Rush (vocals and instrumentals). The Spirit of Radio, YYZ, A Passage to Bangkok, Jacob's Ladder, The Trees, Xanadu, Free Will; Tom Sawyer; and five others. MERCURY SRM-2-7001 two discs $12.98, © MC8-2-7001 $12.98, © MC8-2-7001 $12.98.

Performance Good
Recording Good

Rush is a hard-working, earnest, and youthful trio from Canada that has built a growing audience over the past few years. Their songs are ambitious and fantastical without being pompous, so they don't quite fit into the (shiver) "art-rock" category. They're beginning to push at the inherent limitations of the trio format, however—you can do only so much with just bass, drums, and lead guitar no matter how much noise you make (as witness Cream and Grand Funk Railroad). Rush really needs a bigger sound to match their imagination. As it is, after a while the earnestness and energy begin to pall, especially on a two-disc live album like this one.

J.V.

ROD STEWART: Tonight I'm Yours. Rod Stewart (vocals); vocal and instrumental accompaniment. How Long; Tear It Up; Young Turks; Jealous; Just Like a Woman; Never Give Up on a Dream; and four others. WARNER BROS. BSK 3602 $8.98, © M5 3602 $8.98, © M8 3602 $8.98.

Performance Excellent
Recording Excellent

I have never heard a convincing argument against a musician's earning a living—even if he has committed the sin of becoming a superstar—so I don't agonize much over Rod Stewart's alleged artistic decline. He is still a highly professional and occasionally very exciting singer, as this latest album—released to coincide with his recent tour—abundantly demonstrates.

Of course, there is some of his usual schlock (the title song and the hit single Young Turks), but Stewart's career at this point depends on his purveying a certain amount of prurient pap. Then there are the songs meant less for recording than their effect in live performances, the maudlin ballad Sunny and the raving Out with the Boys (on which his back-up band tries its damnedest to sound like the Rolling Stones). What saves the album are the cuts where Stewart is more relaxed and sings with some of his old fire. Not surprisingly, these selections are rock standards: Dylan's Just Like a Woman, Johnny and Dorsey Burnette's Fifties classic Tear It Up, and How Long, a minor masterpiece from the early Seventies by the now-defunct group Ace.

Stewart may not be artistically ambitious these days, but how many established stars are working as hard to stay in place? J.V.

LUTHER VANDROSS: Never Too Much. Luther Vandross (vocals); vocal and instrumental accompaniment. Never Too Much, Sugar and Spice (I Found Me a Girl), She's a Super Lady, You Stopped Loving Me, A

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CIRCLE NO. 30 ON READER SERVICE CARD
Luther Vandross has gotten a lot of attention for this debut album, thanks largely to ample airplay and hard-hitting promotion. Some of his admirers have been fans since he was a back-up singer for David Bowie, Bette Midler, and Roberta Flack. He is credited with having helped shape the basic vocal sound for such runaway pop groups as Chic and Kleer, and some have even gone so far as to compare him with the incomparable Al Jarreau.

Well, I don't mean to be a spoiler, but I was mightily disappointed by this album. Admittedly, Vandross has a very appealing, resonantly full, and flexible singing voice, but his material (he wrote most of the songs) and interpretation are hardly anything to shout about. They merely reflect the same material on side two is less successful. It isn't a bad idea to try to make film music into something more durable, but in this case the arrangement is overblown and the result pretentious. Kudos, though, for the sound. The bass is impressive, and the clarity is just about perfect throughout the wide dynamic range.

Recordings which have been selling their own recordings of their 198 performances in the depths of the Great Depression (they had to reduce prices from $4.40 tops for an orchestra seat to $3.30 to keep the show going) still number among the happiest experiences of their lives. There was Beatrice Lillie swinging in front of a Moulin Rouge poster singing "Pa-ree," performing her hilarious sketch about the lady in a London department store trying to buy a "dozen double damask dinner napkins," and popping up amid the "Ladies of the Ensemble" in their cherry blossoms and lacquered wigs to warble "Get Yourself a Geisha." There was Eleanor Powell tapping to "Got a Bran' New Suit," Ethel Waters as the Empress Jones, and Reginald Gardiner turning himself into a train. Fortunately, the songs by Miss Lillie and Miss Waters were made available to the Smithsonian by the Liberty Music Shop, which has been selling its own recordings of them through the years. Mr. Gardiner's "Trains" can be heard courtesy of Decca, and Eleanor Powell, taps and all, with Tommy Dorsey and His Orchestra in several lively numbers, appears here thanks to RCA. Nancy Dussault, by arrangement with Mamouth-Evergreen, winsomely sings "Love Is a Dancing Thing." Not so fortunately, it isn't Lillie herself but Cicely Courtenidge, dubbed from an old HMV disc, who is heard here, less sensationally amusing, in "Dinner Napkins," and things kind of peter out a bit in the end with composer Arthur Schwartz at the piano muttering several reprises instead of a big smash ensemble finale. These reconstructions lack the flow and unity of the latter-day original-cast recordings to which we've become accustomed. Even so, the album affords more than a hint of the charms which turned At Home Abroad into a legend. The photographs and text are up to the usual high Smithsonian standard, and Stanley Green's
notes are full of absorbing information and intriguing sidelights. P.K.

BUSTIN’ LOOSE. Original-soundtrack recording. Roberta Flack (vocals, piano); vocal and instrumental accompaniment. MCA MCA-5141 $8.98, © MCAC-5141 $8.98, © MCAT-5141 $8.98.

Performance Very good Recording Good

Roberta Flack has not had much luck with her recordings lately, but this soundtrack album from Richard Pryor’s film Bustin’ Loose may just change that. Sure, there are a couple of instrumentals that give away the original purpose of the music, but they are not of the trite banjo-down-the-highway variety, and one, Quel e Malindrinha, is even rather nice. However, it’s the ballads that carry this album, and Roberta Flack can sing a ballad. I particularly like the two songs she co-wrote with singer Eric Mercu.

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rying a ballad. Flack has not had much luck with

riety, and one, Qua! e Malindrinho, is even

not of the trite banjo-down-the-highway va-

original purpose of the music, but they are

a couple of instrumentals that give away the

Loose may just change that. Sure, there are

Robert Flack has not had much luck with

Well, I always knew that jazz was not the

With vertigo stomping through a china shop.

Also involved in this set is Barry Miles, whose handling of a keyboard

I was wrong to

cause the music Styne wrote for her cap-

much of the material written specifically

the most dated, perhaps because of the

and the one that sent her career into orbit.

Broadway show, her first in a leading role,

phrase remains full of comic wonder and dra-

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Nontheless... the Celestion was the clear winner in high frequency response, appar
The new "Stop and Smell the Roses" is the best album that Ringo Starr has ever made, mostly because he's allowed to be himself. Nobody—not even a fan like me—would claim that Ringo's a versatile singer, but he is certainly a charming entertainer and a real personality. Remember the Liverpool sense of humor that, among other things, made the Beatles so endearing in their early days? Well, Ringo never lost it, and here he has a chance to display it. He also takes on the songs with a gusto that is largely missing on his previous solo albums.

"Stop and Smell the Roses" is a potpourri of tracks produced by various folks, and the lack of a single producer trying to impose order on the proceedings works to Ringo's advantage. No one connected with the album was especially concerned about its being cohesive—or even coherent. It is madcap, funny, rowdy, spiteful, nostalgic, and convincing.

Three of the cuts were produced and/or written by Paul McCartney (Private Property, Attention, Sure to Fall), three by Harry Nilsson (Stop and Take the Time to Smell the Roses, Back Off Boogaloo), and two by George Harrison (Wrack My Brain, You Belong to Me), one by Stephen Stills (You've Got a Nice Way), and one by Ringo and Ron Wood (Dead Giveaway). McCartney's contributions are disappointing. Even when he's trying to write specifically for Ringo, he has trouble hearing past the sound of his own voice. Both Attention and Private Property are burdened with arrangements featuring overdubbed saxes to create a "big-band" effect. Private Property caters to Ringo's limited vocal range so cautiously that he sounds stifled. Attention has admirable construction, but the modulations are tricky for Ringo, who's usually a by-the-note singer rather than an interpreter. The third McCartney-produced cut—this one successful—is the old Carl Perkins rockabilly ballad Sure to Fall, which the Beatles kept in their stage act for years with John and Paul singing double lead. The version here is more relaxed in tempo and includes a sing-along vocal chorus, lots of happy chatter in the background, and two solos on pedal-steel guitar by that Nashville great Lloyd Green.

Ringo Smells the Roses

George Harrison produced the 1952 chestnut You Belong to Me as a gag, and Ringo runs through it with a vaudeville geniality. Much less genial is Harrison's own Wrack My Brain, an exasperated and irritable attack on Beatles crazies who live in the past. "What I have you don't want/I think-listen-careful now—that you live...[T]here's no way I can see/Coming up with something you'd enjoy/As much as TV." That just about says it all.

Harry Nilsson hasn't been heard from much lately, but his contributions here provide most of the antic moments. Drumming Is My Madness is pure flapdoodle. There are no real lyrics, only disconnected phrases backed up by a Van Dyke Parks arrangement for a ten-piece orchestra with Ringo singing and drumming along in giddy glee. Back Off Boogaloo is a surreal reprise of Ringo's 1971 hit single with Nilsson vocally interpolating snatches of Beatles tunes in a manic manner. Stop and Take the Time to Smell the Roses gives Ringo a long spoken monologue wherein, like a stump preacher, he exhorts the listeners to stop everything they're doing and buy the album, concluding with, "I'm going crazy with this record business—I want to stop—you want me to stop it—everybody wants it to stop!"

Ringo and Ron Wood co-wrote and co-produced the ominous Dead Giveaway, about a loser living off a reputation that has long since run out. This is the most compelling track on the album. You've Got a Nice Way by Stephen Stills and guitarist Michael Stergis is the most romantic. It has Stills' modal trademarks and tight harmony back-up singing balanced with Ringo's straightforward sincerity.

It has long been assumed that Ringo was the Beatles most needed the association, but that's just not true. In the last ten years he's had more hit singles than any other ex-Beatle except Paul, he has been praised for his comedic acting skill in films, and he has turned into a capable songwriter. Don't forget that it was Ringo who wrote Early 1970, an affectionate but realistic portrait of his fractious comrades, and that he has since written or co-written most of his own hits. Ringo hasn't had any trouble making it on his own.

"Stop and Smell the Roses" is simultaneously Ringo's farewell to Beatledom and a display of his own strengths as an entertainer, which are considerable. And I also think—listen careful, now—that he's a good drummer.

—Joel Vance

Ringo Starr: Stop and Smell the Roses. Ringo Starr (vocals, drums), Paul McCartney (bass, piano), George Harrison (guitar); Ron Wood (guitar, bass, saxophone); Stephen Stills (guitar); other musicians. Private Property; Wrack My Brain; Drumming Is My Madness; Attention; Stop and Take the Time to Smell the Roses; Dead Giveaway; You Belong to Me; Sure to Fall; You've Got a Nice Way; Back Off Bugaloo. Boardwalk NBI-33246 $8.98, © NBT-33246 $8.98.
COLLIER AND DEAN: Whistling Midgets. Tom Collier (vibraphone, marimba); Dan Dean (bass); Don Grusin (Fender Rhodes); Alex Acuna (drums, percussion); Gary Herbig (saxophones); Norman Collier (French horn); Alex Acuna (drums, percussion); Gary Herbig (saxophones); and others.

Recording: Very good

"Whistling Midgets," followed by the title tune and with "A Song for M" running a close third. Their music doesn't make any demands, but Collier and Dean take such an evident delight in playing it that you can't help delighting in hearing it.

J.V.

RECORDING OF SPECIAL MERIT

JOE DERISE: House of Flowers. Joe Derise (vocals, piano); Bill Popp (bass); Minnrel Man; Sophisticated Lady; East Side of Heaven; If I Had a Talking Picture of You; I'm in Love with Someone; Blues My Naughty Sweetie Gave to Me; and five others.

Audiophile AP-153 $7.98 (from Audiophile Records, 3008 Wadsworth Mill Place, Atlanta, Ga. 30032).

Performance: Charming

Recording: Good

Joe Derise gives his songs a warm hug, squeezing every drop of meaning out of their lyrics. As one might expect from someone so caring, he also chooses his material with a keen ear, and you can hear the results of his musical love affair on only a couple of albums in the current catalogs, a lovely Inner City set called "I'll Remember Suzanne" (IC 4003) and this new, more intimate, live session, "House of Flowers," recently released by Audiophile. This one includes four Derise originals, three familiar favorites (including the rarely recorded "If I Had a Talking Picture of You"), an obscure Cole Porter tune, and some songs that will have you wondering why you haven't heard them before. It all adds up to a very person-

JAZZ

al set, loaded with charm. Derise's first recordings appeared on a Bethlehem album in 1955 and a 1958 set with the Australian Jazz Quartet, and then he disappeared for close to twenty-five years. I hope he makes more than the two albums this time around.

C.A.

RECORDING OF SPECIAL MERIT

DUKE ELLINGTON: Symphony in Black. The Smithsonian Jazz Repertory Ensemble, Gunther Schuller cond. Symphony in Black; Night Song; The Clothed Woman; I'm Beginning to See the Light; and three others. Smithsonian Collection N1024 $8.98 (plus $1 postage and handling from the Smithsonian Collection, P.O. Box 10230, Des Moines, Iowa 50336).

Performance: Devilishly Dukish

Recording: Excellent remote

This album captures a concert by the Smithsonian Jazz Repertory Ensemble held in the Museum of Natural History in Washington, D.C., almost two years ago, and it takes its name from an extended work that occupies all of the second side. Symphony in Black—probably performed here for the first time in its entirety—was written by Duke Ellington for a 1935 Oscar-winning musical short that also featured teenager Billie Holiday. It is a kind of suite divided into four main sections, and it sounds like an early blueprint for later works—most notably Black, Brown and Beige. Some of this music subsequently appeared out of context under more familiar titles; thus Dance is Ducky Wucky, Harlem Rhythm is Merry Go Round, and Big City Blues is The Saddest Tale. Big City Blues features a vocal by Beverly Rohrlehr, who, like so many singers Ellington himself hired, has a lackluster voice and no discernable style.

The Ellington orchestra was unique, and conductor Gunther Schuller makes no attempt to imitate it. But the Smithsonian Jazz Repertory Ensemble does reasonably and splendidly recreate the essence of early and middle Duke. Mike Abene does a fine job at the keyboard, and there is good solo work by such players as Lew Soloff, Sal Nistico, Jimmy Knepper, and David Berger, but the most outstanding individual here is saxophonist Bob Wilber, who wears Johnson Hodges' hat as well as he does Sidney Bechet's, yet is indisputably Bob Wilber. Granted, as long as we have good recordings of the originals, "re-creations" are more valid as stage presentations than recordings, but this is one live performance that merited preservation.

C.A.

RECORDING OF SPECIAL MERIT

DAVE FRISHBERG: The Dave Frishberg Songbook. Dave Frishberg (vocals, piano); instrumental accompaniment. I'm Hip; A Little Taste; Z's; Sweet Kentucky Ham; Do You Miss New York?; and five others. Omnisoround Jazz N-1040 $8.98 (from Waring Enterprises, Inc., Delaware Water Gap, Pa. 18327).

Performance: Intimate wit

Recording: Good

I haven't seen Dave Frishberg since I produced an album featuring him with Bud
**Rogers/Bertoncini**

**Bobbi Rogers** and **Gene Bertoncini**

Bobbi Rogers’, second album, “Crystal and Velvet,” is a joint effort with guitarist Gene Bertoncini. It is also a soft pillow for your ears, full of downy sounds of a kind one rarely hears any more. Bertoncini plays acoustic guitar, and he pays as much attention to Rogers as she does to the lyrics in their eclectic program, so this is not a set of vocals with guitar accompaniments; it is a set of nine superb duets.

The arrangements are by Bertoncini, and they are true to the artistry with which they are executed (just listen to the way he introduces You Must Believe in Spring). Bobbi Rogers is still teaching nursing in Middletown, Connecticut, but, listening to the way she nurses a song, one wonders how long it will be before music becomes her main occupation. Well, perhaps one shouldn’t wonder, for popular music is a tough field to survive in, especially when an artist has only quality to offer. So treat yourself to this set, and producer Mort Fega—a connoisseur of tasteful jazz and pop—just might be encouraged to follow-up with a full-up album.

—Chris Albertson

**Bobbi Rogers/Gene Bertoncini: Crystal and Velvet**

Bobbi Rogers (vocals); Gene Bertoncini (guitar). Once You’ve Been in Love; A Time for Love; My Funny Valentine; Close Enough for Love; I’m a Stranger to Myself; Two for the Road; You Must Believe in Spring; It Never Was You; Isn’t It a Pity? Focus 338 $8.98 (from Focus Productions, P.O. Box 17312, West Hartford, Conn. 06117)

**Pug Horton**

Don’t Go Away. Pug Horton (vocals); Bob Wilber (saxophone); Russ Freeman (piano); Milt Hinton (bass). If I Can Dream; By Myself; Tipperary; Melancholy; and seven others. Bodesswell, BW 102 $8.98 (from Bodesswell Records, P.O. Box 624, Brewster, Mass. 02631)

Performance: Good
Recording: Good

This is a nice surprise. Pug Horton has a creamy, sultry voice not unlike the great Peggy Lee’s and a style of delivery that is direct and to the point. She thinks about her lyrics and quickly and consistently establishes a dramatic mood, whether it be the feigned indifference of By Myself or the sweet resignation of I Can Dream. Her full and equal collaborator here is Bob Wilber on saxophone; his work with her is much more part of a dialogue than mere accompaniment. Sir Roland Hanna on piano and Milt Hinton on bass round the personnel out in a totally professional way, but the real news is the combination of Horton and Wilber. I’d like to hear more.

—P.R.

**Mark Murphy**

Bop for Kerouac (see Best of the Month, page 77)

**Art Pepper**

Among Friends. Art Pepper (alto saxophone); Russ Freeman (piano); Bob Magnusson (bass); Frank Butler (drums). Blue Bossa; What’s New; I’ll Remember April; Besame Mucho; and four others. Discovery DS-837 $8.98 (from Discovery Records, P.O. Box 48091, Los Angeles, Calif. 90048)

Performance: Excellent
Recording: Very good

If Art Pepper doesn’t watch out, he is going to have too many albums on the market. Having them released one on top of the other can easily depress sales, and Pepper is simply too valuable a player to have his recordings end up in the cutout bins. His latest album—at this writing, at least—is actually a reissue, for “Among Friends” originally appeared in 1979 on Interplay (IP 7718). I doubt if that release was adequately distributed, and at least this one reached me so I can sing its praises. Sure, it is a so-called “blowing session,” the kind without much planning, but planning can often get in the way when experienced musicians get together. With the rhythm section headed by pianist Russ Freeman, things go smoothly, if perhaps somewhat routinely at times. This is not Pepper’s best effort in recent years, but it does deserve a place in the upper half of an output that on the whole has maintained a high average level.

—C.A.

**Zoot Sims**

I Wish I Were Twins. Zoot Sims (soprano and tenor saxophones); Jimmy Rowles (piano); Frank Tate (bass); Aki Ra Tana (drums). Georgia; Changes; The Fish Horn; You Go Your Way; and three others. Pablo 2310-868 $8.98, © K-70-868 $8.98.

Performance: Zootable
Recording: Excellent

There is no doubt about it, saxophonist Zoot Sims is one of the most consistently satisfying players on the jazz scene today. Record after record, performance after performance, he manages to swing his creative energies with freshness and technical skill, all the same maintaining a timeless ease and grace. Here, once again with the equally tasteful Jimmy Rowles on piano (this is their fifth Pablo album together), Sims breezes through an interesting program of seven tunes, most of which you are not likely to hear anywhere else in a year of concentrated listening. Recommended.

—C.A.
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JAMES BLOOD ULMER: Free Lancing. James Blood Ulmer (vocals, guitar). Amin Ali (electric bass); G. Calvin Weston (vocals, piano). Other musicians, On Green Dolphin Street; At Sundown; Bernie's Tune, Shiny Stockings, and four others. CONCORD JAZZ CJ-163 $8.98, © CJ-163 $8.98.

Performance Smooth Recording Good

Buddy Tate spent the Forties in Count Basie's reed section. Need I say more? That alone should tell you that Tate has a fine capacity for eloquent swing and a way with notes that will delight the most discriminating connoisseur of Swing Era jazz. On "The Great Buddy Tate," Tate's cornet providing the perfect complement, Tate, now sixty-five, pours on the sound like a rich sauce, breathing new life into mostly familiar tunes of no particular vintage. His son Paul Tate also gets into the act, singing a velvet rendition of I Realize Now, a rela- tively obscure tune from Nat King Cole's repertoire; he has a pleasant voice but some trouble keeping it in key. The rhythm sec- tion—Hank Jones, Milt Hinton, and, on separate selections, drummers Mel Lewis and Jackie Williams—is everything one would expect of its personnel. This album is a safe investment, sparkling as a diamond and just as durable.

C.A.

MEL TORME: And Friends. Mel Torme (vocals, piano); Jonathan Schwartz, Cy Coleman, Janis Ian (vocals); Gerry Mulli- gan (saxophone); other musicians, Pick Yourself Up; Mountain Greyness; Cottage for Sale, Isn't It A Pity; Love for Sale, New York State of Mind; The Best Is Yet to Come; Wave, Isn't It Romantic; I Guess I'll Have to Change My Plan; and ten others.

FINESSE W2X 37484 two discs, © WTX 37484, no list price.

Performance Tasteful Recording Good

This two-disc set was recorded live at Mar- ty's, a chic, very expensive jazz club/restaurant on the Upper East Side of Manhattan. Mel Tormé pulls out all the stops for his obviously enthralled audience, and he is joined at different times by such grats of the jazz, pop, and theater worlds as Gerry Mulligan, Janis Ian, Jonathan Schwartz, and Cy Coleman. The atmosphere is so thickly "in" and red-hot show-bizzy that it would probably make even Douglas Fairbanks, Jr. feel he'd just gotten off the boat from Lodi with shopping-bag luggage and his hat on backwards. The respectful swoons of admiration for Tormé from his peers and the music press have always mstified me somewhat, but this disc along with the superlatives in much the way Charlie the Tuna, anxious to prove his "good taste," nods sagely and appreciative- ly at a Van Gogh hung upside down. Listen- ing to this album, in which Tormé displays his usual superb timing, distinctive voice, and eclectic musicality, I finally came to the conclusion that he's good, but he's not all that good, at least to my ears. What he may be is the best salesman around of a particular kind of jazz/pop hipness that first placed itself above criticism some time in the Fifties. Ah, showmanship! P.R.
Glenz Zottola

First heard trumpeter Glenn Zottola a few months ago at Eddie Condon's, a venerable New York jazz club, and I was immediately impressed with the way he combined the subtle elements of modern jazz with the exuberance of traditional forms, moving from one to another with assured ease and infectious zest. It was in September 1980 that the newly formed

Zottola hand-picked the personnel for this date, all of them with extensive credentials. You'd never know this was their first public appearance as a unit from their smooth exchanges and musical in-jokes (quotations from Oh, You Beautiful Doll and the Grand Canyon Suite, among others). They are certainly a playful quintet, especially pianist Harold Danko and tenor saxophonist Al Klink. Zottola is acquiring a deserved reputation in New York as one of the most imaginative and versatile younger jazz musicians, and this album will show you why. —Joel Vance

GLENN ZOTTOLA: Live at Eddie Condon's. Glenn Zottola (trumpet, alto saxophone, flugelhorn); Al Klink (tenor saxophone); Harold Danko (piano); Linc Milliman (bass); Al Harewood (drums). My Melancholy Baby; Misty; Like Someone in Love; Three Little Words; My Little Suede Shoes; Easy to Love; I'm Confessin'; Blue 'n' Boogie. DREAM STREET DR-105 $8.98.

(ducks); other musicians. Timeless; Pleasure Control; Night Lover; Where Did All the Girls Come From?; High Time; Stand Up to Yourself; Happy Time; and three others. COLUMBIA ARC 37493, © ACT 37493, no list price.

Performance: High intensity

Recording: Good

James Blood Ulmer is an anomaly: an experimental jazz guitarist who is relentlessly funky, a colleague of Ornette Coleman for much of the Seventies whose manic intensity has now garnered him a large, enthusiastic following among New York's punk crowd. With "Free Lancing," his first major-label U.S. recording (he's made previous albums for custom jazz labels here and in Europe), Ulmer should begin to reach a wider audience of free-jazz fans.

Ulmer's guitar style is strongly influenced by Coleman's "harmonic" improvising: a linearly structured style in which the musicians move together through different keys rather than taking their cues from conventional chord progressions. When it works, it produces solos of thrilling breakneck spontaneity; when it doesn't, the results range from confused to tortured. "Free Lancing" has its share of both hits and misses. It features Ulmer in three different settings: a guitar-bass-drums trio, a quartet that adds a second guitar to the core trio plus three back-up vocalists, and a sextet of the trio plus tenor and alto saxaxes and a trumpet. The sextet appears on three of the album's ten tracks, and it is by far the most successful format, largely because of the exciting solos of David Murray (tenor), Oliver Lake (alto), and Olu Dara (trumpet). The least satisfactory tracks are the three quartet numbers, where Ulmer contributes sort of growing vocals that are as uncertain as they are unintelligible, though they are not without feeling. The four trio cuts will sound familiar to those who have seen Ulmer perform; they're disjointed, lean, and aggressively rhythmic.

"Free Lancing" is not easy listening. Like free improvisation in general, it demands as much discipline and concentration from the listener as from the player(s). But it's full of the kind of challenging, risk-taking music that major labels all too rarely take a chance on and offers the serious jazz listener plenty to chew on.

M.P.
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