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Stereo Review®

SPECIAL TAPE ISSUE

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- High-End Equipment
- Noise Reduction

Singer
Susannah McCorkle

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- Paul Simon
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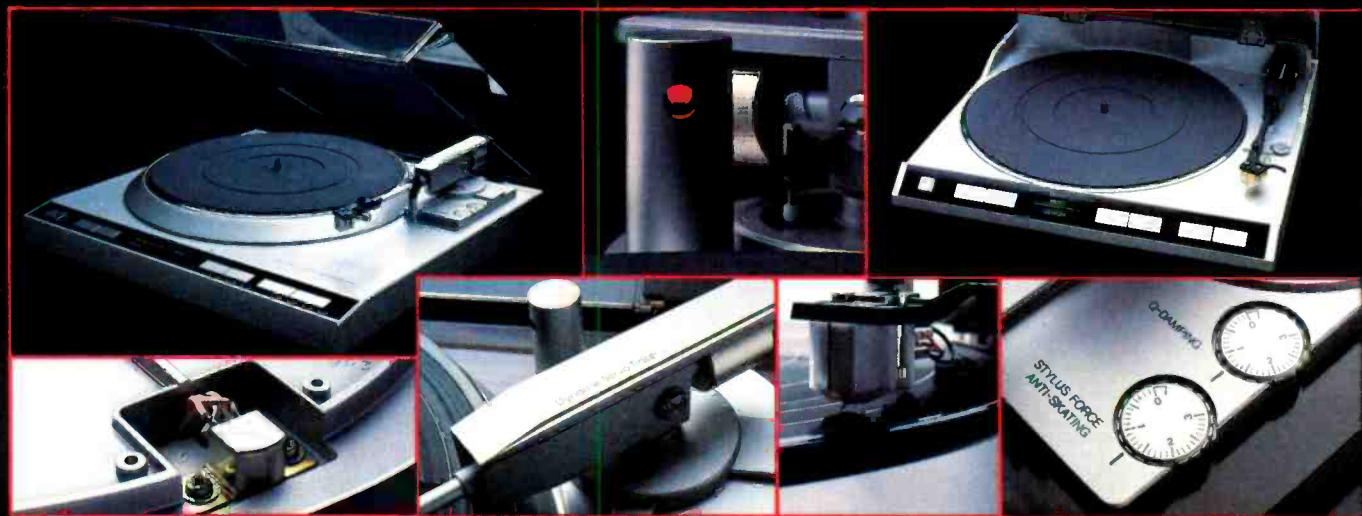
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CIRCLE NO. 28 ON READER SERVICE CARD

Bulletin

Edited by Christie Barter and Gordon Sell

● **71-MINUTE CD FROM DENON:** A single Compact Disc is reported to have a maximum playing time of seventy-five minutes, which is as long as it takes Herbert von Karajan to get through the Beethoven Ninth in his DG recording on two LP's. The symphony is extremely popular in Japan, and it is said that this is why the CD was developed for this specific maximum capability. The first CD on the market to take advantage of it is a Ninth on the Denon label by the Berlin State Orchestra with vocal soloists and chorus under Otmar Suitner. The disc plays for a record seventy-one-plus minutes, at a bargain suggested list of \$19.95.

● **MCA INTO MUSIC VIDEO:** MCA Home Video has entered the music-video market spearheaded by Sony with the Video 45. MCA's first release, Olivia Newton-John's "Twist of Fate," is an "EP" drawn mostly from the soundtrack of the current movie Two of a Kind, in which Newton-John stars with John Travolta. The twenty-five-minute tape is available in all home video formats at a suggested retail price of \$19.95.

● **STEREO TV transmission technology** developed by Zenith and the dbx noise-reduction system have been selected by the Electronic Industries Association for recommendation to the FCC. Zenith beat out stereo TV proposals from the Japanese electronics industry and a company called Tele-sonics. The losing noise-reduction systems were from Dolby and CBS. Some manufacturers are reported to be ready to ship product within three to six months of a favorable FCC ruling.

● **HONORS LIST:** The composer-conductor Lukas Foss, currently music director of the Milwaukee Symphony and the Brooklyn Philharmonia, has been elected to the American Academy of Arts and Letters. Membership in the Academy represents the highest formal recognition of artistic merit in this country. ...Antal Dorati, conductor laureate of the Detroit Symphony, has been made Honorary Knight of the Order of the British Empire (K.B.E.) by H.M. Queen

Elizabeth II in recognition of his "valuable services to music in Britain." Honorary knighthoods are awarded to non-Brits and have in previous years gone to violinist Yehudi Menuhin and conductor Bernard Haitink.

● **NEW VIDEO FORMAT:** Kodak, GE, Sanyo, Fisher, and RCA have announced plans to develop products based on the new 8-mm video tape format. The 8-mm cassettes are about the size of an audio cassette and make it easier to design compact, one-piece camera/VCR units. The companies hope this will encourage consumers to make home video recordings the way they used to make home movies. A prototype "Camcorder" shown by Kodak can be docked with a table-top "cradle" and a TV/cable tuner module to do double duty as a home VCR. The 8-mm format is currently capable of recording for 90 minutes, although RCA expects to have 2-hour recorders. The 8-mm format includes digital and FM subcarrier (similar to Beta Hi-Fi) audio tracks. Kodak's tape is made by TDK and the hardware is by Matsushita.

● **PRICE CUT:** PolyGram Classics has reduced the suggested retail price of all its digital LP's and cassettes by a dollar, from \$12.98 to \$11.98. Not affected by the cut are London's opera sets, which stay at \$10.98 per disc.

● **HOT NEWS FROM CES:** At this winter's Consumer Electronics Show, held in Las Vegas, many companies introduced new low-priced Compact Disc players and others cut prices on older models. Most expect the least expensive CD players to hit the \$299 price point by the end of the year....VHS Hi-Fi may finally be here: Hitachi and RCA will be delivering them in the first quarter of 1984, with Quasar, Sharp, and probably a few more by summer.... Bob Carver demonstrated his "Digital Time Lens"...Fujitsu Ten, Philips, Panasonic, and Mitsubishi demonstrated prototype car stereo CD players....A new noise-reduction circuit designed by Larry Sholtz will be available on components from NAD and Sherwood.... Full CES report in our April issue.

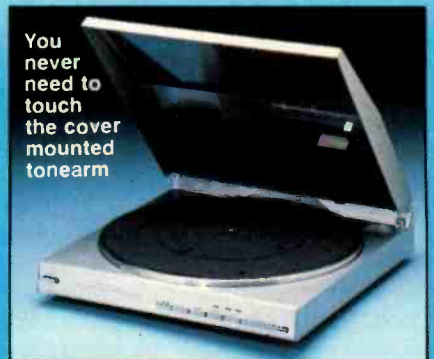
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Lincoln Perry

Singer Susannah McCorkle—see page 52

COVER: Design by Borys Patchowsky; photo of Susannah McCorkle courtesy Inner City Records; photo of Nakamichi RX-505 cassette deck by Geoff Rosengarten (see page 25 for Hirsch-Houck Labs' test report).

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Speaking My Piece

By William Livingstone



With Luciano Pavarotti
at Sam Goody's record
store in New York

THE MET'S CENTENNIAL

THIS season's celebrations of the one hundredth anniversary of the Metropolitan Opera have made me sentimental about the company. Somehow the centennial has made me realize that the Met has provided many of the most thrilling musical performances I have ever witnessed.

The anniversary has been observed with the publication of several books, a centennial medallion has been struck, the U.S. Postal Service has issued a commemorative stamp (of which 165 million have been printed), and around town there have been exhibits of Met costumes, memorabilia, and photographs.

Tiffany's, one of New York's most prestigious jewelers, saluted the Met with a display of table settings with operatic themes. This opened with an elegant press breakfast, and I have demanded extra respect from my friends since the day I had breakfast at Tiffany's.

A lot of changes have taken place in the Metropolitan in its first century. In the season of 1883-1884 at the old opera house at Broadway and 39th Street, there was only one American among the principal artists. He was the baritone Frank Nash, who performed under the stage name Franco Novara.

Now, in James Levine, the Met has an American music director, and more than a hundred American conductors and singers are scheduled to perform with the company this season. They don't bother to change their names any more, but make do with such American names as Roberta Peters, Sherrill Milnes, Leontyne Price, Jessye Norman, Marilyn Horne, and Samuel Ramey.

In the new house at Lincoln Center, to which the company moved in 1966, people who buy the cheapest

Family Circle seats do not have to use a separate side-street entrance as they did in the old house. And when the Met abolished clothing codes in the Sixties, if any subscribers objected to seeing young people at performances in headbands and hot pants, they were quiet about it.

Texaco has assisted the Met in democratizing opera through the electronic media. This is the forty-fourth season that Texaco has provided funds for the Met's radio broadcasts, the longest sponsorship in broadcasting history. I am only one of millions of Americans who got their operatic education from those broadcasts. The Live from the Met telecasts on PBS, also underwritten by Texaco, are bringing opera even more vividly to new audiences, and the recent addition of English subtitles makes it all the more accessible.

Like the ancient Greeks, I believe that every citizen has a right to enjoy the finest artistic fruits of his culture. Hence, it pleases me that broadcasts take Met performances to homes throughout the country. At the Met's two-part gala birthday concert on October 22, 1983, tickets cost as much as \$1,000 a seat for each part, but you could see and hear the whole thing—nearly ten hours of it—free on television via PBS.

And if you missed the centennial season's opening-night performance of Berlioz's *Les Troyens*, you can catch the same artists (Jessye Norman, Tatiana Troyanos, and Placido Domingo) singing it on PBS on March 28.

I advise you to have a video cassette recorder handy. *Troyens* contains some thrilling moments that I think you'll want to play again in future years when you're feeling sentimental about music and the Met. □

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Letters

AUDIO DEALING

● The stereotypes presented in Steve Booth's January article, "How to Deal with Your Audio Dealer," are absurd. The author seems to be in awe of the retail-store employee simply because he has a display room. I have been a hi-fi wholesaler for several years and have spent a considerable amount of time in audio stores. I have never been in one and *not* overheard salespeople misleading and confusing customers in order to "push" a product or "force" a sale.

I don't say that all retail stores are like that, but they certainly reflect a cross section of business ethics and have no more incentive to be completely honest with unknowledgeable customers than any other industry.

R. K. BUTTURINI
Duluth, Minn.

● As manager of one of the larger stores in a very successful "discount" audio/video chain, I must respond to "How to Deal with Your Audio Dealer." While it was very informative on the whole, there are several points that need emphasis:

1. The biggest error that many stereo (and video) buyers make is deciding on a specific model or feature based only on the advice of "knowledgeable" friends or advertising literature. Customers who "know" what isn't so can be their own worst enemies.

2. Many, if not most, audio salesmen are not properly trained in product knowledge, or they are purposely misleading. This certainly includes the so-called "high-end" stores as well as the consumer-electronics and appliance stores. Stay clear of any salesman who knocks reputable products on dubious (or untrue) grounds.

3. No one has a lock on building good products. Avoid the notion that one company knows something that the rest of them don't. In most cases there will be products from several companies that will satisfy your needs perfectly well.

As regards the "Smiths," whose "cautionary tale" was recounted in the article—once they found a dealer who did not misrepresent or knock reputable products, offered a fair price, and stood behind the products he sold, their major blunder was in not buying from him immediately. Precious little more can be expected from any such transaction.

GLENN DRINKWATER
Glen Burnie, Md.

● "An airline advertising slogan used to tell us that Getting There Is Half the Fun" writes Steve Booth at the start of his article on audio dealers. Wrong. This was for many years the slogan of the Cunard

steamship lines, and I think it probably still is.

NORMAN S. NADEL
Bernard, Maine

Yes, it is.

GORDON LIGHTFOOT

● I was very disappointed by Alanina Nash's brief review of Gordon Lightfoot's "Salute" in December. Ms. Nash missed the point of this album—the obvious, drastic departure from his mainly



folk-type ballads to a more rocking structure for many of the songs. The backbeat is much more defined, and though his trademark layered texture remains, it is laced with percussive elements. Also, he accompanies himself on many tracks with electric rather than acoustic guitar.

Ms. Nash specifically singled out two songs she didn't care for; that isn't reason enough to review the rest of the album flippantly. There are a couple of the usual Lightfoot gems here, and even the pieces that she viewed as mediocre by his standards are still far above those of many other performers. "Salute" is a fine, interesting album with its mix of Lightfoot's usual bittersweet, melancholy ballads and the new, more rocking songs. I have all twenty-two of his albums, and I was not disappointed by this one. Far from it.

MADALENA M. CARROZZO
Brooklyn, N.Y.

TOP COMPACT DISCS

● I agree with David Ranada's choices of good CD's ("25 Top Compact Discs," January), and I am a vigorous advocate of the new format. I disagree, however, with Mr. Ranada's discussion of digital dynamic range in the box on page 61. More important than the average rms sig-

nal level is the peak level, which is, as Mr. Ranada states (understates, I think), many decibels higher. I have personally demonstrated with an oscilloscope that on many CD's loud percussive sounds, such as drumbeats, saturate the recording medium, causing clipping. Whether this clipping is audible is not, for the moment, the issue. The fact is, most CD's that feature full, loud orchestral sound do not reproduce faithfully the entire electrical waveform. For instance, in the plot shown of the opening of Seiji Ozawa's Philips CD of *Also sprach Zarathustra*, there are several seconds of very severe clipping during the loudest passages, suggesting the need for more than 10 dB additional headroom.

Why are the CD manufacturers doing this? Apparently the recording engineers are opting for very low noise floors at the expense of clipped peaks by recording at high levels. This is probably an appropriate compromise, but the fact that a compromise is necessary at all, and the prevalence of clipped peaks, suggests that, contrary to Mr. Ranada, CD's do not have more dynamic range than we can ever use and may, in fact, not really have enough.

B. F. MULLER
Milan, Minn.

Technical Editor David Ranada replies: I don't believe any competent recording engineer is deliberately clipping his digital recordings just to get a lower background noise level. As much as one might clip a signal, the noise will remain at the same level. The engineers for that Also sprach disc should have lowered their recording level by 10 dB; the background noise from the hall, the microphones, and the mixing console would still have dominated the playback noise level, as it usually does. Contemporary multitrack recording techniques are inherently noise-adding, so the signal emerging from a recording console usually has much less than 98 dB of dynamic range. My point still stands: wholesale changes in recording techniques must be made to utilize the full dynamic range available through the CD system.

BIG COUNTRY

● Steve Simels's January review of Big Country's Mercury debut album gives the title as "The Manor," but my copy is called "The Crossing." Please explain.

MIKI OSEP
Simi Valley, Calif.

Steve reviewed an advance pressing, which was titled "The Manor" after the studio where the album was recorded. Sorry we missed the title change.

CORRECTION

● The box on page 38 of the February issue, a summary of test results on the Sony CDP-610ES Compact Disc player, included an incorrect figure for its frequency response. As stated in the text on that page and shown in the graph on page 36, the player's response was flat within ± 0.15 dB. The +1.5 figure in the box was a typographical error.



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□ The two-head D-990R and D-590R (shown) cassette decks from Sansui feature fast auto-reverse and microprocessor controls. Both decks have Dolby-B and



Dolby-C noise reduction, "Introskip Play" (to sample tracks), Blank Search (to locate the space between tracks), peak-level meters, and a four-digit tape counter/elapsed-time display. Up to fifteen tracks can be programmed for automatic playback. The two-motor D-990R also has a five-band graphic equalizer and a wired remote control.

Rated wow-and-flutter of both models is 0.04 per cent, signal-to-noise ratio is 78 dB with Dolby-C, and frequency response is 20 to 19,000 Hz with metal tape. The D-990R is available in silver finish only, the D-590R in black or silver. Prices: D-990R, \$650; D-590R, \$500. Sansui Electronics, Dept. SR, 1250 Valley Brook Avenue, Lyndhurst, N.J. 07071.

Circle 120 on reader service card

PROGRAMMABLE SANYO CD PLAYER

□ The CP200 Compact Disc player from Sanyo can be programmed to play up to sixteen tracks in any order while omitting unwanted tracks. The numerals of the selected tracks are illuminated on the front-panel display while LED indicators flash



to indicate the current track. There is a skip feature to advance the player to the next track or return it to the beginning of the current track and a repeat mode to repeat one track or the entire disc. A PAUSE control stops play temporarily; play begins again at the same point on the disc. The player has a headphone jack. Specifications include a frequency response of 5 to 20,000 Hz and dynamic range, signal-to-noise ratio, and channel separation of

90 dB. Distortion measures 0.003 per cent; wow-and-flutter is too low to be measured. The CP200 weighs 13 pounds and measures 13¼ inches wide, 3¼ inches high, and 10⅞ inches deep. Price: \$549.95. Sanyo Electric, Dept. SR, 1200 West Artesia Boulevard, Compton, Calif. 90220.

Circle 121 on reader service card

NEW SUSPENSION IN DUAL TURNTABLES

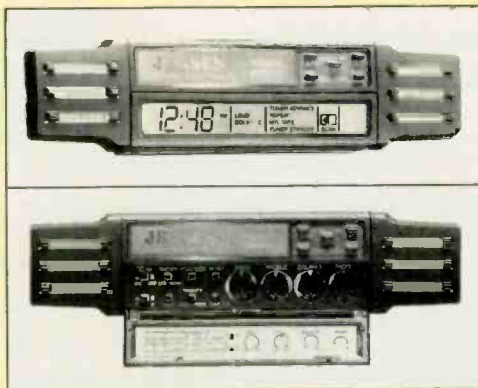
□ Dual has introduced five turntables, three direct-drive and two belt-drive models, with redesigned suspension systems intended to reduce the effects of airborne and base-transmitted vibrations in

the listening room. Each turntable has four independent shock absorbers with computer-calculated damping factors that effectively isolate the tone arm, plat-



ter, and drive system from the base. In addition, the platter mats are made of an extremely inert, high-density material said to dissipate acoustic vibrations be-

COMPUTER CONTROLLED JENSEN CAR STEREOS



□ Jensen Car Audio's new ATZ line of radio/cassette players features a unique front-panel design and a built-in microcomputer to control tuning and tape-transport functions. There are five models in the line, ranging from the ATZ100 to the top-of-the-line ATZ500 (shown), and any model can be installed in almost any car. Flip-out wings on each side of the center panel conceal existing knob holes in the dash made to accommodate conventional units. The left wing has touch buttons to control volume and tuning scan and seek; the right has six station-preset buttons, each of which can select one AM and one FM station. The display panel in the center flips down to reveal additional controls (lower photo).

All five models have digital-synthesis tuning, automatic program control, tuner standby (allowing the radio to be heard while the tape is in a fast-wind mode), LCD time/frequency dis-

play, and separate controls for bass, treble, balance, and fader. The basic ATZ100 (\$319.95) and the ATZ200 (\$369.95) both have 10 watts total power; the latter also has a loudness control and a tape-peek feature. The ATZ300 (\$419.95) has 20 watts of power and Dolby-B noise reduction. The ATZ400 (\$469.95) has 30 watts of power, emits a confirming beep when any control button is pressed, can repeat a tape side indefinitely or skip up to six selections on a tape, and can scan either a tape or the preset stations, with a 5-second audition period for each track or channel. The ATZ500 (\$519.95) has 40 watts of power and adds to the foregoing features Dolby-C noise reduction and a beep indicator that the signal strength of a tuned station has dropped to unacceptable levels. Jensen Car Audio, Dept. SR, 4136 North United Parkway, Schiller Park, Ill. 60176.

Circle 122 on reader service card

New Products

fore they reach the stylus. The straight, tubular tone arms offered on all the new turntables are suspended in four-point gyroscopic gimbals. Total effective arm mass, with cartridge, is 7 grams.

The top-of-the-line CS 630Q (shown) is a quartz-controlled, direct-drive, fully automatic turntable with electronic pitch control and digital speed display. Rated wow-and-flutter is ± 0.02 per cent (wrms), and weighted rumble is -78 dB (DIN-B). Price: \$249.95. The other direct-drive models are the CS 620Q (\$199.95) and CS 616Q (\$179.95); the former is fully automatic, the latter semi-automatic. The two belt-drive models are the fully automatic CS 530 (\$149.95) and the semiautomatic CS 515 (\$134.95); both have pitch control. Specs for the latter include ± 0.045 per cent wrms wow-and-flutter and -75 dB DIN-B-weighted rumble. Adcom, Dept. SR, 11 Elkins Road, East Brunswick, N.J. 08816.

Circle 123 on reader service card

TOP-OF-THE-LINE MARANTZ DECK

□ Marantz's new top cassette deck, the SD530, features a wireless remote-control option usable when it is connected to other compatible Marantz components. The



auto-reverse deck has both Dolby-B and Dolby-C noise reduction, full metal-tape capabilities, and full-logic controls. Index Scan and Quick Music Sensor functions facilitate locating desired sections of a cassette.

Two other new Marantz decks (not shown) are the SD321, a metal-compatible model with soft-touch controls, peak-reading LED's, and both Dolby systems, and the similar SD221, which lacks Dolby-C. All three decks have jacks for headphones and two microphones. Prices: SD530, \$350; SD321, \$185; SD221, \$130. Marantz Co., Inc., Dept. SR, 20525 Nordhoff Street, Chatsworth, Calif. 91311.

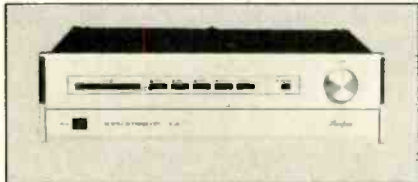
Circle 124 on reader service card

NEW SEPARATES FROM ACCUPHASE

□ Two preamplifiers and two matching power amplifiers, all hand built, have

been introduced by Accuphase. The C-280 preamplifier has rhodium-plated jacks and twin independent power transformers. Mated phono amps allow retrofitting of future improved modules. Price: \$3,550. The companion P-600 power amplifier is rated for 300 watts per channel (rms) into 8 ohms from 20 to 20,000 Hz with no more than 0.01 per cent total harmonic distortion at any output from 0.25 watt to the rated maximum. It has seven parallel push-pull output stages attached to the heat sinks and can handle speakers with impedances of from 1 to 16 ohms. Price: \$3,550.

The C-222 preamplifier (shown) features a d.c. servo system and a variable phono stage that will accept both moving-magnet and moving-coil cartridges.



Separate power supplies are provided for each unit amp. Price: \$1,250. The matching P-266 power amplifier operates in either class-A or class-AB mode, giving the user a choice between sonic purity and increased power. In class-AB operation, the P-266 produces 130 watts per channel (rms) into 8 ohms from 20 to 20,000 Hz with no more than 0.01 per cent total harmonic distortion. The comparable specification in class A is 30 watts per channel (or 110 watts mono). Price: \$1,375. Madrigal Ltd., Dept. SR, P.O. Box 781, Middletown, Conn. 06457.

Circle 125 on reader service card

FIVE-SIDED B&W SPEAKERS

□ Instead of the usual rectangular cabinet, the new B&W DM2000 (right in photo) and DM3000 speaker systems have five-sided enclosures that were designed to reduce internal direct reflections and



standing waves that can interfere with bass/midrange cone motion. The primary difference between the two models is that the DM2000 has one bass/midrange driver and the DM3000 has two. Both also have passive radiators to increase bass re-

sponse, and the woofers are vertically aligned with the tweeters to minimize time-delay effects. Electronic overload protection enables the speakers to be used with very powerful amplifiers.

Specifications for the DM2000 include a frequency response of 50 to 20,000 Hz ± 2 dB, impedance of 8 ohms, and sensitivity of 87 dB sound-pressure level (SPL) with a 1-watt, 500-Hz, sine-wave input measured at 1 meter. Minimum power is 30 watts. The DM2000 measures 32 inches high, 12 $\frac{1}{4}$ inches wide, and 15 inches deep. Price: \$1,300 per pair. Specifications for the DM3000 include a frequency response of 50 to 20,000 Hz ± 2 dB, impedance of 8 ohms, and sensitivity of 89 dB SPL under the same conditions. Minimum power is 25 watts. The DM3000 measures 38 inches high, 12 $\frac{1}{4}$ inches wide, and 15 inches deep. Price: \$1,790 per pair. Anglo-American Audio, Dept. SR, P.O. Box 653, Buffalo, N.Y. 14240.

Circle 126 on reader service card

WIDE-RANGE KOSS HEADPHONES

□ With a frequency response from 15 to 25,000 Hz, the new Porta Pro headphones from Koss Corporation are designed to perform better than most home loudspeakers, with a wide dynamic range and an extended bass response. The supra-aural headphones are intended for use with pocket stereos but come with an



adaptor for use with home systems. Each of the ear cups pivots to rest on the ear, and the 2.5-ounce weight of the headphone set is partly supported by foam pads that rest on the temples, thus reducing the pressure on the ears. The pressure level of the ear cups is switch-adjustable from firm to light. The headband is also adjustable. Hinged just above the temporal pads, the Porta Pro headphones fold up to fit in the palm of the hand.

Each phone's diaphragm is made of polyester film 16 micrometers thick, about one-fourth the thickness of a human hair. Specifications include impedance of 60 ohms and 1,000-Hz total harmonic distortion of less than 0.1 per cent at a 90-dB sound-pressure level (SPL) and less than 0.2 per cent at a 100-dB SPL. The Porta Pros have a muting switch and come with a protective bag



No conventional turntable delivers the accuracy and control of this one: Technics SL-6 Programmable Linear Tracking Turntable.

The problem with a conventional turntable tonearm is that it arcs across the record surface. So it is capable of true accuracy at only two points in its arc. Where the stylus is precisely aligned with the record groove.

The Technics SL-6 Linear Tracking Turntable goes beyond that. It actually duplicates the straight-line motion of the cutting arm that originally mastered the record. This enables the Technics SL-6 to deliver true accuracy at every point on the record. First note to last. There is none of the tracking error, skating force error or distortion that accompanies a traditional tonearm.

And the SL-6 ensures this accuracy with some outstanding technological advances. Including a microcomputer-controlled system that constantly monitors the stylus-to-groove angle and automatically makes corrections.

But linear tracking is just the beginning. There's the

precise control you get with the Technics random access programmable microcomputer. At the touch of a button, you can set the SL-6 to play any selections you want, in any order. You can even repeat or skip selections.

There are still more features that help the Technics SL-6 perform so impeccably. A precision direct-drive motor. Sensors that automatically select the correct playing speed.

Our patented P-Mount plug-in cartridge system delivers optimum tonearm/cartridge compatibility along with simplified cartridge installation.

And all of this technology has been neatly placed in a turntable about the size of a record jacket.

Accuracy, control and musical pleasure beyond the conventional. The Technics SL-6 Programmable Linear Tracking Turntable. Just one of the sophisticated and "intelligent" turntables from Technics.

Technics
The science of sound

CIRCLE NO. 1 ON READER SERVICE CARD

A cowboy wearing a white hat and a red shirt is riding a dark horse with white markings on its face and legs. He is holding a lasso in his right hand. The background is a vast, open field of tall grass under a blue sky with some clouds.

Come to Marlboro Country.



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

17 mg "tar," 1.1 mg nicotine av. per cigarette, FTC Report Mar '83

Warning: The Surgeon General Has Determined
That Cigarette Smoking Is Dangerous to Your Health.

New Products

and a 5-foot flat Y cord. Price: \$59.95. Koss Corporation, Dept. SR, 4129 North Port Washington Avenue, Milwaukee, Wis. 53212.

Circle 127 on reader service card

DOLBY-C DECK FROM VECTOR RESEARCH

□ The new VCX-200 two-head cassette deck from Vector Research has Dolby-C noise reduction as well as Dolby-B, and it features a Music Search function to find the beginning or the end of a recorded track. Compatible with both normal-bias and metal tape, the VCX-200 has two switchable bias/equalization settings for



chrome tapes and a variable bias control to optimize bias for different brands of tape. The sendust record/play head is made of alloys that are said to improve magnetic flux density, reduce high-frequency loss, and decrease wear. Transport controls are power assisted, and there are LED peak-level indicators. Other features include record mute, cue and review, and microphone jacks. Price: \$250. Vector Research, Dept. SR, 20600 Nordhoff Street, Chatsworth, Calif. 91311.

Circle 128 on reader service card

KENWOOD CAR RADIO HAS EXTRA PRESETS

□ Kenwood's KRC-929 AM/FM car radio/cassette player features three popular noise-reduction systems—Dolby-B, Dolby-C, and dbx—and twenty-four station presets. Six memory keys are used to program the presets. There is a seek tuning



function to locate the next receivable station up or down the band and separate bass and treble tone controls. The cassette section features auto-reverse, automatic tape loading, and full-logic controls. Price: \$729.

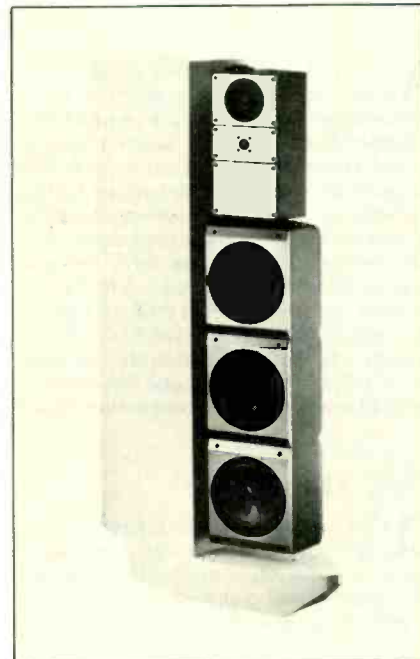
While supplies last, buyers of the KRC-929 will receive a free tape-deck mainte-

nance kit that includes a bottle of Allsop tape-head cleaner, a prerecorded cassette with instructions on tape-deck care and samples from the Mobile Fidelity Sound Lab catalog, and a blank Kenwood metal-tape cassette. All are packaged in a leather carrying bag along with a copy of the Original Master Recording cassette version of Chuck Mangione's "Feels So Good" and a listing of Mobile Fidelity's other releases. Kenwood Electronics, Dept. SR, 1515 East Watsoncenter Road, Carson, Calif. 90745.

Circle 129 on reader service card

SELF-POWERED WHARFEDALE SPEAKER

□ Wharfedale's self-powered Option 1 loudspeaker system can be switched to radiate the lower frequencies in either a dipole (figure-8) or omnidirectional pattern. The company says that a dipole radiator placed at right angles to a room



boundary does not suffer the wall-induced frequency-response dip associated with omnidirectional sources. With its dipole radiation pattern, the Option 1 avoids exciting the room-resonance modes that would normally occur and produces the polar dispersion that is said to be necessary for accurate imaging.

The four 8-inch woofers and two subwoofer drivers in the system normally radiate in a dipole pattern since the three front-mounted drivers move outward as the three rear drivers move inward. The woofers are essentially "cabinetless" while the subwoofer drivers (the lowest two) use the whole of the curved-panel support as a sixth-order vented box. The two midrange drivers and the single tweeter are on a rotatable assembly to permit fine adjustments to the radiation pattern.

The system is powered by four 150-watt amplifiers located in the base, making a total of 1,200 watts of amplifier power in a stereo pair. Input is provided

by a specially designed electronic crossover. Its input stage is suited for both balanced and unbalanced lines, and the system comes with an adaptor to convert any preamplifier output to a balanced configuration and to adjust the speaker's sensitivity by 20 dB.

Maximum system output is given as greater than a 120-dB sound-pressure level with normal program-material peaks. Frequency response in the dipole radiation mode is 35 to 20,000 Hz +0, -3 dB; in the omnidirectional mode it is 25 to 20,000 Hz +0, -3 dB (this rating includes the subwoofer output). The two systems in a stereo pair are level-matched within 0.5 dB from 50 to 10,000 Hz. Each Option 1 system, finished in white fiberglass, is 53 inches high, 30 1/4 inches wide, and 12 inches deep. Price: \$12,000 per pair. Wharfedale, Dept. SR, 5 Rockford, West Nyack, N.Y. 10994.

Circle 130 on reader service card

PIONEER VIDEO SOUND PROCESSOR

□ By pressing the desired mode switch on the front panel of Pioneer's SP-101 Synthesized Surround Processor, a listener can synthesize three different apparent acoustic environments from the surround-encoded audio soundtracks of vid-



eo media: a theater, a stadium, and a recording studio or small concert hall. A fourth setting gives a stereo quality to cable television and mono video discs or tapes. The SP-101 connects in a tape-monitor loop of a stereo system and requires another amplifier and pair of speakers located toward the rear of the listening/viewing area. The device uses time-delay and other circuitry to create the surround effect.

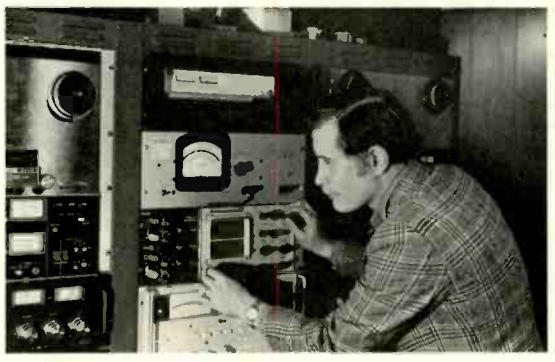
Front-panel controls also include tape-monitor and bypass switches, master volume, balance, and synthesizer level knobs, and buttons for a "Super Bass Synthesizer" low-frequency enhancement circuit. Signal-to-noise ratio (in the STUDIO mode) is given as 85 dB. Total harmonic distortion is 0.5 per cent at 1,000 Hz (1-volt output). Frequency response is 20 to 20,000 Hz +0, -3 dB. Dimensions are 16 1/16 x 2 3/8 x 13 1/4 inches. Price: \$300. Pioneer Video, Inc., Dept. SR, 200 West Grand Avenue, Montvale, N.J. 07645.

Circle 131 on reader service card

NOTE: All product descriptions and specifications quoted in these columns are based on materials supplied by the manufacturers, who will respond directly to reader requests for further information. Domestic inflation and fluctuations in the value of the dollar affect the price of imported merchandise. Please be aware that prices quoted in this issue are therefore subject to change.

Tape Talk

By Craig Stark



DEMAGNETIZING

Q. *What's all this business about demagnetizing tape heads, and where can I get a demagnetizer?*

AUSTIN BROWN
Norman, Okla.

A. In use, tape heads (as well as iron-based capstans, tape guides, and the like) tend to acquire a certain amount of residual "permanent" magnetism. If this is not removed, it will partly erase the high frequencies stored on a tape and also add tape hiss.

Properly used, a head demagnetizer will remove this accumulated magnetic charge by applying a very strong alternating magnetic field to the heads and then either automatically or manually reducing the strength of the alternating field to zero. The automatic route is taken by the many electronic head demagnetizers that are available built into cassette shells. These do not, however, demagnetize the other parts that may also need treatment; they just work on the heads. Manual demagnetizers usually have a probe or wand carrying the alternating field and are plugged into a wall socket.

To use a manual demagnetizer, first turn the unit on some distance away (an arm's length, say) from the tape deck (which must itself be turned off) and from any recorded tapes. Then slowly bring the tip of the demagnetizer up to the surfaces to be demagnetized and just as slowly withdraw it. Finally, turn the demagnetizer off only when it is again at least an arm's length away from the deck. Both types of demagnetizer are available from any hi-fi dealer.

OPEN-REEL DOLBY-C

Q. *I recently bought an outboard Dolby-C noise-reduction unit that I intend to use principally with an open-reel deck. I've received conflicting answers, however, as to whether the calibration level for Dolby-C is the same as for Dolby-B (I have a calibration cassette for the latter) and whether open-reel Dolby circuits use the same calibration level as cassette Dolby*

circuits. Can you give me an authoritative answer?

TOM VIS
Reston, Va.

A. According to the Dolby Licensee Information manuals, which are the authoritative sources in such matters, the reference flux level on the tape for Dolby-B and Dolby-C-encoded cassettes is 200 nanowebers/meter (as determined by the high-efficiency head-measurement method, not by the DIN vibrating-magnetometer method). This is the level now on your calibrated cassette tape. The Dolby level for open-reel tapes is 0.68 dB less, or 185 nanowebers/meter (similarly determined), which is identical to the "operating level" on the Ampex and NAB open-reel frequency-response calibration tapes.

TAPE TYPES

Q. *Can you tell me the differences between normal, chrome, and metal tapes? If metal tapes are so much better, why don't record companies make prerecorded cassettes with them?*

LANE GILLESPIE
Maryville, Tenn.

A. Each of the tape types you mention has a different set of magnetic characteristics. To obtain optimum performance from each type, the proper bias and equalization settings on your deck must be used.

Normal (meaning "more or less standard") tapes use ferric-oxide (Fe_2O_3) particles to store the music signals. They are designed to use a "normal" level of bias current during recording. (Bias is an ultrasonic signal that is fed through the record head in order to lower distortion and to increase the amount of signal that the tape can hold. How it works has still not been completely explained theoretically.) Normal tapes also use 120-microsecond playback equalization, which simply means that the playback head plus the recorder's circuitry together produce a rise in the treble response that begins at about 1,300 Hz. The amount of this boost doubles each time the frequency doubles

and thus helps offset, or equalize, the high-frequency losses that take place in recording. Ferric tapes are available in a wide variety of qualities, and the better brands can cost substantially more than the cheapest.

Chrome tapes are made with chromium-dioxide (CrO_2) particles or "chrome-equivalent" materials consisting of ferric oxide combined with cobalt. All tapes in this category require a higher bias-current level (about 50 per cent more than for ferric oxides) to achieve their best performance and are therefore called "high-bias" tapes. These cassettes have an inherent advantage in high-frequency response and thus do not need as much playback treble boost as do normal tapes, only 70-microsecond equalization (engineering shorthand for a boost that begins at approximately 2,270 Hz) instead of the normal 120 microseconds. The higher the frequency at which you begin the fixed rate of treble boost (the lower the number of microseconds' equalization), the less boost you will apply at any given high audio frequency. Since the treble boost during playback accentuates tape hiss as well as the musical overtones you want to hear, CrO_2 -type tapes have a theoretical advantage over normal tapes in signal-to-noise ratio (they have less hiss). In recent years, however, improvements in top-quality normal tapes have made them about as good overall as chrome types.

Metal tapes use "pure" iron (non-oxide) magnetic particles and have by far the best storage capacity at high frequencies. They use the same playback equalization (70 microseconds) as chrome types but require roughly twice the recording bias as chrome. The reason metal tapes aren't used for prerecorded cassettes is that they cost about twice as much as even premium tapes of the other types, and record companies are more interested in highly frequent profits than in high-frequency losses.

TAPE-STRETCHING RISK

Q. *I recently acquired an open-reel deck able to handle 10½-inch reels. I want to splice together some recordings I have that were made on 7-inch reels with 3,600-foot tapes. My dealer, however, tells me that the ½-mil tape used in 3,600-foot 7-inch reels is too thin and would stretch if subjected to the higher tensions imposed by a deck using 10½-inch reels. Is he right?*

WILLIAM THOMPSON
Wrens, Ga.

A. Probably. Triple-play (½-mil) open-reel tape is sonically inferior to the more usual 1- and 1.5-mil thicknesses, to say nothing of the handling problems it presents. These ultrathin open-reel tapes have the same base-film thickness and yield strength as a C-60 cassette tape. There are a few open-reel decks that can safely handle both the weight and the forces (during fast-winding) that result from using 7,200 feet of ½-mil tape on a 10½-inch reel, but these are more often found in studios and industry than in the home. □

AUDIOPHILE FILE™ XL-S

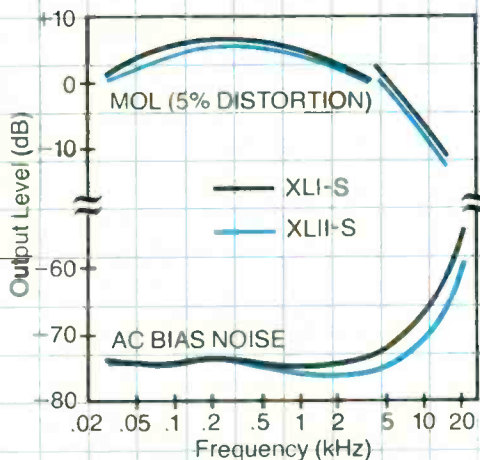
COMPACT DISC COMPATIBLE

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

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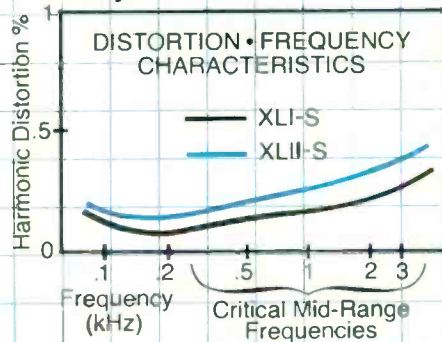


As a result, the dynamic range of each tape has been significantly expanded. So you get a

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LOWER DISTORTION.

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



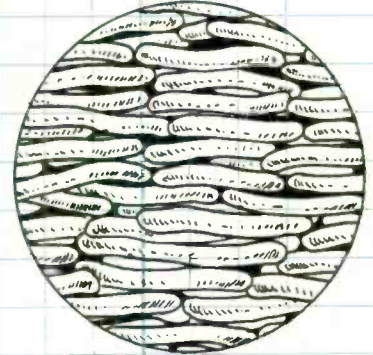
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For technical specifications on the XL-S series, write to: Audiophile File, Maxell Corp. of America, 60 Oxford Drive, Moonachie, New Jersey 07074.



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CIRCLE NO. 27 ON READER SERVICE CARD

Audio Q. and A.

By Larry Klein



Ellen Klein

er, I suggest redefinition as the way out of the impasse. (I'm aware that the fidelity we are discussing is called "high" rather than "absolute," but that really doesn't help the situation.) I propose that the redefined goal of "high-fidelity reproduction" be the creation of a sound field that produces in the listener the sonic illusion that he or she is in the presence of a live musical performance.

Astute readers will realize that this definition neatly sidesteps such issues as the sound of the original, the amount of electronic manipulation it was subjected to, and even whether there ever was a discrete "original" sound. In my view, if the sound delivered by the system is *plausible*—that is, if it sounds as though it could have been live at some time and place—it can be called "high fidelity."

BASS CONVERSION

Q. *I have a twenty-year-old floor-standing three-way bass-reflex speaker that I would like to use as a subwoofer with a pair of small but very good bookshelf systems. Is this idea practical? If so, what sort of electronic crossover would I need?*

MARTY MARINO
Mohegan Lake, N.Y.

A. I doubt that your idea is practical, mostly because it's not likely that a twenty-year-old bass-reflex system has a bass response that either goes low enough or is clean enough to make it worthwhile to invest in an electronic crossover for it. But there are certain no-cost tricks you can try that might allow you to realize some bass value from your old system.

First you will need to reduce your old system's non-bass output. You can do this by removing its grille cloth and tacking thick toweling over the midrange and tweeter. Also, of course, turn down any midrange and tweeter controls. Now connect the modified system across the terminals of one of your bookshelf speakers, set your amplifier to mono, and listen for the improvement—if any—with a recording you know has good bass.

If you like what you hear, you can experiment further by facing the bass system into a corner and/or tacking additional toweling over its woofer cone. Because of the way bass signals are usually recorded, you might get satisfactory results in stereo with the woofer permanently connected across only one channel of your amplifier. As a final step, electrically disconnect the system's midrange and tweeter by unscrewing them from the front panel and removing one of the two wires going to their terminals. Then remount the two drivers—otherwise the acoustic design of the cabinet may be upset. □

Because the number of questions we receive each month is greater than we can reply to individually, only those letters selected for use in this column can be answered.

MATCHED IMPEDANCE

Q. *I've been told by an engineer friend that to ensure maximum transfer of energy, all impedances in an electrical system should be matched. Is he right? As far as I know, my hi-fi system doesn't have any matched impedances.*

ALFRED GABOR
Detroit, Mich.

A. Your friend is right about matched impedances ensuring maximum energy transfer, and an example of such a match in hi-fi would be the choice of the 300- or 75-ohm inputs on a tuner or video tape recorder to match an antenna or cable. With most audio components, however, precise output-input matching is seldom required or even desirable. The general rule is that the impedance of the signal source should be low and that the input impedance of the equipment being driven should be at least ten times higher. The object of this apparently gross mismatch is to prevent the equipment being fed from loading down the equipment serving as the source. For example, the output impedance of a preamplifier should be very low to ensure that the shielded cables plugged into its output jacks will resist hum pickup and won't cause a loss of the higher frequencies. (Both of these problems can occur when a high-impedance device, such as a microphone or perhaps a phono cartridge, is feeding a long shielded cable.)

Phono cartridges have very special impedance-matching requirements. For most magnetic cartridges the preamplifier's input impedance is fairly critical and directly influences the cartridge's audible performance in the middle- and high-frequency ranges. Although manufacturers have agreed on about 50,000 ohms (the standard value is 47,000 ohms) as the proper load to be seen by each cartridge channel for a flat frequency response (regardless of the cartridge's internal impedance), things don't always work out as well as hoped. Not only do the capacitances of the phono leads and preamplifier inputs enter into the circuit, but phono-preamp circuits often interact with the coil inductance of the cartridge

to produce unpredictable high-frequency response aberrations.

FIDELITY TO WHAT?

Q. *When we refer to "high-fidelity reproduction," there's an implication that we know what the original sound was like. Obviously, that is rarely the case. And I understand that the sound heard on most pop recordings is seldom produced by the musicians all at one time—so, in effect, there never was an original sound for the reproduction to be faithful to. Is the term "high fidelity" no longer valid?*

JAMES FORTNUM
Rockford, Ill.

A. I would say that it is as valid as it ever was... which is not very.

For newcomers to the terminology and practices of sound reproduction, a brief description of normal professional recording procedures will be enlightening. Except when live concert performances are involved, rock and pop recordings are usually carefully crafted studio products created at a sound-mixing board from the available musical elements—many of which may have been produced at different times and places. In fact, there is usually so much electronic manipulation of the original sounds that the final recorded product may be impossible to duplicate in a live concert.

And even with classical recordings, which generally avoid special sonic effects, funny things still happen to the music on its way to commercial release. The classical recording engineer/producer selects—for better or worse—the number, type, and locations of the microphones; the recording environment; and the mixer balances. What appears on the final disc or tape combines those factors with additional sonic artifacts introduced—purposely or otherwise—during the various steps required to manufacture the disc or tape. You can see that the question of "fidelity to what?" is really no easier to answer for classical recordings than it is for pop and rock.

Since the term "high fidelity" is securely imbedded in the language, howev-

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CIRCLE NO. 37 ON READER SERVICE CARD

Car Stereo



BY JULIAN D. HIRSCH AND
CHRISTOPHER GREENLEAF

SONY XR-100

If you often drive in areas afflicted with severe FM multipath interference, you have probably noticed that the areas of interference are very small. Reception quality can vary widely, from fine to unlistenable, in the course of a few feet. It's of little comfort, however, to realize that a good, clear signal may be only a short distance down the road when you're caught in traffic and multipath is making hash of your favorite program.

Sony's new XR-100 digital-synthesis AM/FM car tuner/cassette player was designed to solve this problem, perhaps the most vexing in car stereo. The tuner is intended to be connected to two separate antennas mounted at least 3 feet apart on the car. At any moment, one of the antennas is likely to be in a clear-signal zone. The tuner continuously monitors the signals from both antennas, determines which one is of higher quality, and automatically switches to the one providing the better reception. Since the switching operation takes only 250 microseconds (millionths of a second), it is not detectable by a listener even if it happens frequently. This multi-antenna approach, called diversity reception, is not a new idea; shortwave-radio operators have been using it to improve reception for half a century or more. It is, however, new to car stereo.

The auto-reverse tape deck in the XR-100 features what Sony calls a "laser amorphous head," which is said to provide superior tape reproduction and longer life. Both Dolby-B and Dolby-C noise-reduction systems are included in the XR-100. The cassette-loading slot is above the digital display window, which shows the received frequency when the tuner is turned on and the time when it is off or while a cassette is being played. The window also has various illuminated legends, and a pair of indicator lights shows

which antenna is being used at any given moment.

Various buttons on the panel select one of six station presets (each can be used for one AM and one FM channel), step the tuner frequency in either direction by one increment (0.1 MHz for FM and 10 kHz for AM), select the tape-equalization constant and noise-reduction system, switch the display to show the time, and reduce the tuner sensitivity to prevent overload near a powerful transmitter. Other buttons are used to select the tape direction (shown by illuminated arrows) and fast winding in either direction. There is a tape-eject button, and ejection also occurs automatically when the ignition is switched off. The XR-100 has no overall power switch. The tuner has a separate on/off switch, and the cassette player switches on automatically when a cassette is inserted into the slot. The remaining tape control is the AMS (Automatic Music Sensor) button, which advances the tape rapidly in either direction until it reaches the next recorded portion.

The XR-100 has two sets of triple-con-

centric knob controls. At the left are the bass and treble tone controls, each center-detented, and the tuner on/off push switch, which rotates to adjust channel balance. The knobs at the right of the panel include the band selector, which has settings for AM, stereo FM, mono FM, and FM with the diversity-switching system disabled (this position provides automatic stereo/mono switching). Concentric with this are the front/rear fader control and the tuning SCAN/STOP switch. One push on the latter initiates a frequency scan with a 5-second monitoring stop on each station received. A second push stops the scanning action. Pulling out this knob opens the preset memory to store the frequency of the station that is being received.

Price of the Sony XR-100 is \$650. One or two external power amplifiers are needed as well as a second FM antenna if the diversity-switching system is to be used. Sony Corporation of America, Consumer Products Division, Dept. SR, Sony Drive, Park Ridge, N.J. 07656.

LAB TESTS

Our bench tests on the Sony XR-100 were made as for a conventional car stereo, using only the antenna input A, which is designated for installations not having two antennas. The output signals were taken from one of the line-level outputs (identical sets of front- and rear-speaker outputs are provided), terminated by the standard IHF load of 10,000 ohms in parallel with 1,000 picofarads. The tone controls had good response characteristics, much like those of a good home amplifier. The tape transport had an excellent frequency response, with only a slight difference between forward and reverse operation. The tape signal-to-noise ratio was excellent with either Dolby noise-reduction system and CCIR/ARM weighting, but there was a noise floor of only about -43 dB with an unweighted measurement and no noise reduction.

Like many other car stereo tuners, the FM section of the XR-100 has an auto-

HIRSCH-HOUCK LAB MEASUREMENTS

FM mono usable sensitivity (75-ohm input): 16 dBf (1.8 μ V)

Mono 50-dB quieting sensitivity (75-ohm input): 20 dBf (2.8 μ V)

Stereo 50-dB quieting sensitivity (75-ohm input): 45 dBf (50 μ V)

Tuner signal-to-noise ratio at 65 dBf: 54 dB

Tuner distortion at 65 dBf: 0.2 per cent

FM frequency response (-3-dB limits): 35 to 18,000 Hz

Stereo separation at 100, 1,000, and 10,000 Hz: 26, 34, and 23 dB

Capture ratio at 65 dBf: 2.2 dB

AM rejection at 65 dBf: 70 dB

Alternate-channel selectivity: 68 dB

Adjacent-channel selectivity: 9 dB

Image rejection: 50 dB

AM frequency response (-6-dB limits): 140 to 3,800 Hz

Tape-playback frequency response (standard BASF test tapes, -3-dB limits): 120 μ s EQ—50 to 15,000 Hz

forward, 50 to 17,000 Hz reverse; 70 μ s EQ—49 to 17,000 Hz forward, 49 to 18,000 Hz reverse

Tape signal-to-noise ratio (referred to 250 nWb/m at 315 Hz): unweighted, 43 dB (70 or 120 μ s EQ); with Dolby-B and CCIR/ARM weighting, 61 dB (120 μ s EQ) and 65.5 dB (70 μ s EQ); with Dolby-C and CCIR/ARM weighting, 69 dB (120 μ s EQ) and 71.5 dB (70 μ s EQ)

Flutter: forward, \pm 0.14 per cent CCIR weighted, 0.085 per cent JIS weighted; reverse, \pm 0.17 per cent CCIR, 0.1 per cent JIS

Tape speed accuracy: 0.0 per cent error at start of tape, -0.2 per cent at end

Fast rewind time for C-60 cassette: 100 seconds

Tone-control range: +9, -8 dB at 100 Hz; +9, -8.5 dB at 10,000 Hz

Amplifier line output into IHF load at clipping (measured at 1,000 Hz): 1.47 volts

matic channel-blend circuit that blurs the distinctions between mono and stereo operation. Although the stereo light came on at a very low signal level—about 13.5 dBf, or 1.3 microvolts (μV), into a 75-ohm impedance—the audio output was in mono until the signal reached 25 to 35 dBf (5 to 15 μV), and the channel separation at that point was still a minimal 5 to 10 dB. Full stereo reception was not obtained until we reached 45 to 55 dBf (50 to 150 μV).

While we could not judge the effectiveness of the Sony XR-100's diversity-switching system under laboratory conditions—since no one has yet developed a realistic laboratory multipath genera-

TO CALL THE XR-100'S
DUAL-ANTENNA
TUNING SYSTEM
"HELPFUL" WOULD
BE LIKE CALLING
TAXES "SLIGHTLY
UNPOPULAR."

tor—it would seem to be an ideal solution to the chronic problem of multipath interference while driving and the resulting "picket-fence" effect on reception. In its more conventional aspects, the XR-100 was a very good tuner and an even better cassette player. Very few car tape players we have tested have even come close to matching its freedom from erratic tape-to-head contact at high frequencies or its virtually identical frequency response in both directions. —J.H.

ROAD TESTS

While diversity switching may not be a panacea for FM reception problems on the road, in our tests of the Sony XR-100 the system improved both mono and stereo reception so much that the unit is likely to be remembered as a milestone on the path toward the perfect car FM tuner. Since the system can be easily switched on and off, A/B comparison between single- and dual-antenna reception was possible. Single-antenna listening was no different than it is with other fine conventional car tuners, but reception using both antennas was so much better—whether out in the country, in the suburbs, or in midtown Manhattan—that to call the diversity-switching system "helpful" would be like calling taxes "slightly unpopular."

My Volvo already had two antennas, though I normally connect a stereo system only to one or the other. They are 7 feet, 10 inches apart, which is rather more than the 3-foot (or 1-meter) minimum separation that Sony recommends, so we cannot say whether the system works as well with closer antenna spacings. The consistently difficult conditions for FM reception in a moving car—a constant stream of signal peaks and nulls—were vividly illustrated by the XR-100's two

MUSICAL

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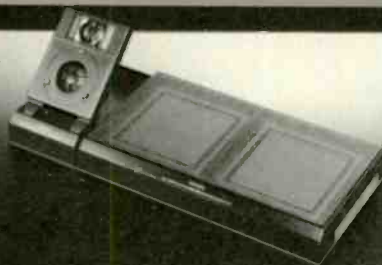
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STUDER REVOX

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CIRCLE NO. 47 ON READER SERVICE CARD

indicator lights showing which antenna is being used when. Even rural driving produced frequent shifts between them, and in the city—especially on one nightmare stretch of a Brooklyn expressway—the lights flickered back and forth so much that it appeared as if both antennas were constantly in use.

Quantitatively, the effect was to make stereo FM broadcasts remain fully listenable (with help from the high-blend circuitry) for more than *twice* the usual distance with conventional car tuners we have tested. I heard real stereo FM in areas where I had gotten only frustrating hints of it before. The Sony tuner is not unusually sensitive, so the actual reception range for receiving stereo signals did not extend much farther than it normally does; the difference was that the stereo signals remained *usable* for almost all of that distance, which is not my usual experience at all. Mono FM broadcasts were also received with greater than usual steadiness and intelligibility up to the limits of reception. At no time were the workings of the diversity-switching system audible as such in any way.

Leaving aside the XR-100's mediocre AM section, both tuner and tape operation were very smooth. I did not hear deep bass sounds from FM or tapes, but the bass that was reproduced was solid and satisfying. Treble performance was taut and clean. I sorely missed a loudness contour to supplement the bass and treble tone controls. The high treble response sounded essentially similar in both forward and reverse tape playback, indicating accurate azimuth alignment.

A premium Dolby-C-encoded pre-recorded cassette had the expected quietness in playback on the XR-100, leaving the impression of a car stereo that is capable of a wide-range, open sound. Its full potential would have been easier to achieve in my car if there had been a mid-range tone control. The tape transport had no trouble with my cranky old C-120 ferric test cassette. The motorized tape loading is fast and smooth, and the ignition-off eject protects against tape or pinch-roller damage.

Manual tuning is slightly less convenient with the XR-100 than on most car stereos because the two pushbuttons for moving up or down the frequency band don't give you anything to hang onto if you're changing stations while driving. (That's one advantage of the conventional tuning knob, whether it is turned or merely rocked to one side or the other.) The displays are easily legible with night illumination or in any daytime light except direct sun, and the buttons are intelligently arranged on the faceplate. All the knobs that need center detents have them, but the fader and the tone-control knobs have such narrow turning arcs that subtle adjustments are hard to achieve; longer-throw knobs would permit more gradual changes while driving.

Overall, the Sony XR-100 is a functional, fine-sounding car stereo whose value is immeasurably enhanced by the very effective diversity-switching tuning system. After using it, going back to single-antenna reception is very difficult. —C.G.

Circle 145 on reader service card

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

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

It more than meets the ultimate tape deck challenge.

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

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

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

It more than meets the needs of the audio perfectionist.

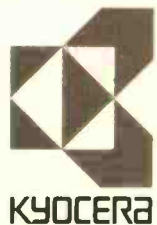
The D-801 goes above and beyond even the fussiest audiophile's needs with 3-position bias/equalization selection (with fine bias adjustment), 400 Hz calibration tone, Automatic Program Mute Recording, automatic search, and electronic 4 digit display, including counter, elapsed time and time remaining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

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

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

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KYOCERA

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Technical Talk



JULIAN D. HIRSCH

"0-DB" TAPE RECORDING LEVEL

EVERY analog tape recorder, whether open-reel or cassette, has level-indicating meters or lights that are calibrated over a range from -20 dB or lower to slightly above 0 dB. As a rule, the portion of the scale above 0 dB is colored red or otherwise distinguished from the lower portion as a "danger zone" you should not record in. Increased distortion is the implied penalty for recording "in the red," and tape-deck operating manuals generally make this rule explicit, though sometimes with the proviso that occasional program peaks can reach $+3$ to $+5$ dB without problems. (The penalty for recording at too low a level, on the other hand, is an unpleasantly noisy tape.)

Anyone who has used several different tape recorders, however, knows that the machines have different tolerances for high recording levels. It is also possible for a recording made at a nominal 0-dB level on one machine to play back at an undesirably low or high level on another machine. Evidently "0 dB" does not necessarily mean the same thing on all machines, making this seemingly "standard" level indication much less than universal.

These differences occur because the 0-dB indication is not actually a standard at all, merely a convenient guide for the setting of recording levels. In themselves,

with one notable exception, the scale calibrations mean practically nothing; the meter readings are not absolute measurements. The exception is the Dolby-level indication. If the Dolby Labs' "double-D" logo appears at some point on the scale, this point should correspond to a recorded magnetic flux level of 200 nanowebers per meter (nWb/m) of tape width, which is the standard cassette reference level for calibration of the Dolby-B and Dolby-C noise-reduction systems. But there is no requirement for the Dolby-calibration point to correspond with the 0-dB level indication.

The reason that the 0-dB level indication is not standardized is simply that the capabilities of tape recorders and of tape formulations are not standardized. If the 0-dB indication is supposed to correspond to the highest usable recording level (that is, one that will not produce unacceptably high distortion), it is obvious that its actual value will vary from machine to machine and from tape to tape, since one of the principal differences between different models of tape decks and different grades of tape is in how high a level of signal they can record without

distortion—in other words, their dynamic range.

The signal voltage generated in a tape machine's playback head is directly proportional to the recorded flux level on the tape. The higher this voltage relative to the noise level (in the machine's electronic circuits and that generated by the tape itself), the greater the possible dynamic range of the recording. Therefore, all else being equal, it is desirable to be able to record as high a flux level on the tape as possible.

The main factor limiting the maximum possible recorded flux level has to do with the tape's magnetic properties. During recording, when the flux level for a given tape approaches a certain value, a saturation (overload) effect occurs in that the recorded flux level on the tape is no longer proportional to the signal current through the recording-head winding. This lack of proportionality results in playback

DIFFERENCES OCCUR
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distortion (principally third-harmonic) that increases rapidly with increasing recorded level. Tape saturation is also frequency dependent, so with higher recorded levels there is a lower high-frequency playback response (this is why tape-recorder frequency response is usually specified at a low level, such as the -20 dB used for cassette decks).

TESTED THIS MONTH

Nakamichi RX-505 Cassette Deck
Adcom GFP-1A Preamplifier
AR Stereo Remote Control
Technics SL-QX300 Turntable
Fourier & Speaker System

The design of the recording head also affects the maximum level that can be recorded on a tape. To compensate for the reduced effectiveness of the head at high frequencies, it is necessary to boost the high frequencies in the recording process, and this equalization process further exacerbates the tape-saturation problem. Eventually, the head core itself can begin to saturate, with effects quite similar to those of tape saturation.

From all this, we can see that different recording heads and tape formulations can require rather different amounts of signal current in order to magnetize a tape to a given flux density, such as the Dolby level of 200 nWb/m. For the same reasons, the maximum allowable recorded flux level (usually based on a playback distortion of 3 per cent at 315 Hz) can vary widely. If one machine can record a 400-nWb/m flux level while another barely manages to handle 200 nWb/m with 3 per cent distortion, the first can accept a 6-dB higher recording level than the second.

Ignoring the Dolby-calibration level for the moment, this kind of performance variation gives manufacturers considerable latitude in setting "0-dB" indicator levels. In the case of the second machine in our example, it would be wise to place the 0-dB mark close to or at the top of the scale to indicate that exceeding it would probably result in unacceptable distortion. But since this could give the user an impression of inadequate performance (deserved, in this case), the manufacturer



Recording-level meters, or "VU" meters as they are sometimes called, can either use a pointer needle that is moved mechanically (top) or strings of electronically illuminated LED indicators (bottom). While LED meters can track peak levels better than all but the very best mechanical meters, their resolution is limited by the number of LED's used. Mechanical meters have high resolution but usually slower response times. Photos courtesy of Teac Corp.

might well choose (as some have done) to continue the scale to +3 or +5 dB, although in a contrasting color.

The manufacturer of the superior first machine has several options open to him. If the 0-dB mark is placed at 200 nWb/m (Dolby level), the user will have to be made aware that he should regularly record peaks up to +6 dB to make full use of the machine's potential. If he restricts his maximum level to 0 dB, he is throwing away 6 dB of dynamic range for which

he has paid and no doubt hopes to use. Alternatively, the 0-dB calibration could be set at 400 nWb/m, or 6 dB higher, and the instructions could recommend recording up to that level. In this case, however, it would be almost mandatory to extend the scale perhaps another 2 to 4 dB to allow for higher-level peaks or for the possibility of an improved tape that could be recorded at a consistently higher level. With this latter arrangement, of course, the Dolby mark would appear at -6 dB. Most cassette decks take an approach between these extremes, and it is most common to find the Dolby-level mark somewhere between -3 and +3 dB on their level indicators.

It should be apparent by now that the numbers on a tape-deck level indicator are not absolute values but are relative to the performance and design of the machine. Our test reports on the equipment in STEREO REVIEW always refer the meter readings both to a known reference level, such as 200 nWb/m or the current international reference level of 250 nWb/m, and to the 3 per cent record-playback distortion level. You can use this information as a guide for setting your own recording levels, but, since there may be some variation from unit to unit, it is always best to experiment with your own machine and tape to determine just how high a level you can record without incurring unacceptable distortion. □

Test Reports begin on page 25



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Equipment Test Reports

Hirsch-Houck Laboratories: Julian D. Hirsch and Craig Stark



NAKAMICHI RX-505 CASSETTE DECK

HIRSCH-HOUCK
LABORATORIES

NAKAMICHI products have long been known for embodying unique solutions to subtle design problems few other manufacturers are willing even to face. The Nakamichi RX-505 is the latest example of the company's penchant for the unique. Besides incorporating completely separate recording and playback heads, a closed-loop dual-capstan drive, and both Dolby-B and Dolby-C noise-reduction systems, the RX-505 is a *unidirectional* auto-reverse cassette deck.

That last phrase may seem like a con-

tradition in terms, for other auto-reverse decks move the tape bidirectionally, first in one direction, then in the other. Playing the flip side of a cassette on a conventional unidirectional deck requires manually taking the cassette out of the deck, turning it over, and loading it into the machine again. What the RX-505 does, essentially, is to automate that manual process. When its EJECT/LOAD button is pressed, an assembly inside the deck slides forward by a little more than 2 inches, revealing a holder or carrier into which the cassette is inserted with the tape openings *upward*. When the button is pressed again, the assembly is drawn into the machine, where spring-loaded arms snap into place to ensure that the cassette is properly seated.

When the end of the side is reached during recording or playback, or when the user presses the REVERSE button, the assembly pops out again, the cassette and

its holder spin around 180 degrees, thus turning the tape over, and the assembly nips back into the deck, ready to go. This unique auto-reverse procedure is remarkably quiet, and it takes only about 1½ seconds. For unloading, the assembly emerges once more to proffer the cassette, always with the side first inserted facing out, rather like a perfect butler delivering a letter on a tray.

There are serious reasons behind this approach to implementing the auto-reverse function. Maintaining consistent frequency response at 20,000 Hz at the cassette tape speed of 1⅞ ips (a Nakamichi hallmark) requires maintaining *extraordinarily* precise azimuth alignment. (Perfect azimuth alignment occurs when the tape head's magnetic gap is absolutely perpendicular to the edge of the tape.) With any cassette deck, an azimuth error of only one-sixth of one degree (ten minutes of arc) will produce a loss of 10.25 dB at 20,000 Hz.

Many factors—the perpendicularity of the capstan(s), the manufacturing tolerances for the rollers and tape guides in the cassette shell, and the accuracy of the tape slitting, to name a few—affect the exact tape path, and hence the azimuth angle, in a cassette system. Unless the deck has an auto-correcting azimuth-alignment system (such as that of the Nakamichi Dragon), the tape heads must be permanently aligned so as to balance these factors. In general, if this balance is satisfactory when playing a tape in the forward direction, it will remain satisfactory when the cassette is turned over.

According to Nakamichi's investigations, however, this balance is *not* preserved when a cassette tape is driven backwards. (In the typical auto-reverse deck, for example, an entirely different capstan is used for the reverse direction.) The amount of additional azimuth error produced by conventional bidirectional operation can be small enough to be tolerable on decks not aiming at flat response to 20,000 Hz (or above). But Nakamichi was aiming for such response.

The system of unidirectional auto-reverse also enables the RX-505 to use discrete recording and playback heads, each with its own azimuth adjustments. This permits each head to be designed for its specific function and enables direct comparison between the input signal and its recorded result. A standard bidirectional deck, in which the heads are rotated, must use either a single combined record-playback head or one in which separate recording and playback head elements are contained in a common case. In Nakamichi's view, this compromises performance. In the RX-505, the recording and playback heads are made of Crystalloy and have gap widths of 3.5 and 0.6

Nakamichi's RX-505 unidirectional auto-reverse cassette deck turns the tape cassette over instead of reversing the direction of play. It is shown here part way through the tape-flipping cycle.

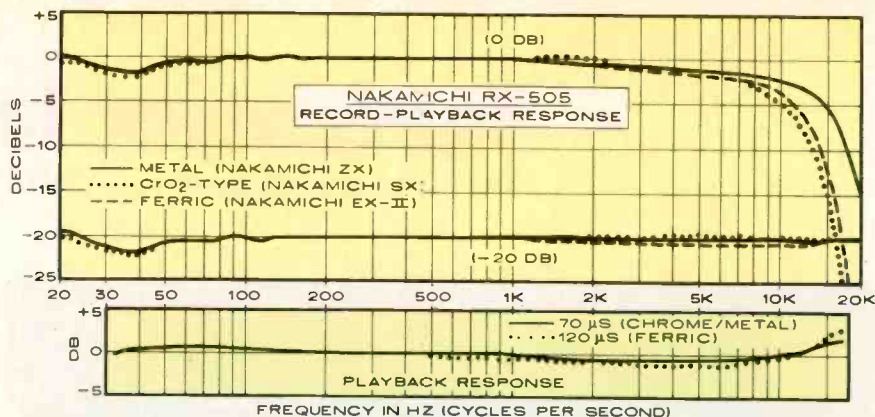


Test Reports

micrometers, respectively. Etched slots along the top and bottom edges of the head faces, where the tape edges pass, prevent development of a wear groove and contribute to the rated 10,000-hour head life. A pressure-pad lifter on the playback head (another Nakamichi exclusive) eliminates the modulation noise that can be created by a cassette's integral pressure pad.

The transport of the Nakamichi RX-505 uses four motors. The dual capstans are belt-driven in a closed-loop configuration by a d.c. servomotor controlled by a PLL (phase-locked loop) circuit; they have slightly different diameters and masses to prevent resonances and to provide the differential tension to hold the tape against the heads. A second d.c. motor is used to turn the supply and take-up reel hubs, and a third operates the cassette-well assembly. The fourth motor replaces the solenoids normally used to activate the tape heads, pinch-roller, and hub brakes, ensuring quieter and gentler operation and making it possible to include a two-speed cueing facility.

Bias and playback equalization for ferric, CrO₂-type, and metal tape formulations are selected with pushbuttons, and a user-adjustable bias fine-tune control is included. Although there are no built-in test facilities for bias adjustment, the three-head design permits bias tuning by ear (using low-level FM interstation hiss as a test source, for example) with at least some assurance of success. Recording levels are set by separate left- and right-channel controls and are indicated on a peak-reading LED display that has ten segments per channel. The display is cali-



The upper curves indicate overall record-playback response at the manufacturer's indicated 0-dB recording level using the tapes designated on the graph. In the center are the same measurements recorded at -20 dB relative to the upper curves, a level conventionally used for tape-deck frequency-response measurements. Bottom curves show playback response with calibrated test tapes.

brated from -40 to +10 dB; while not marked as such, 0 dB was set at the Dolby-calibration level. Tape position is indicated by a conventional four-digit electronic counter.

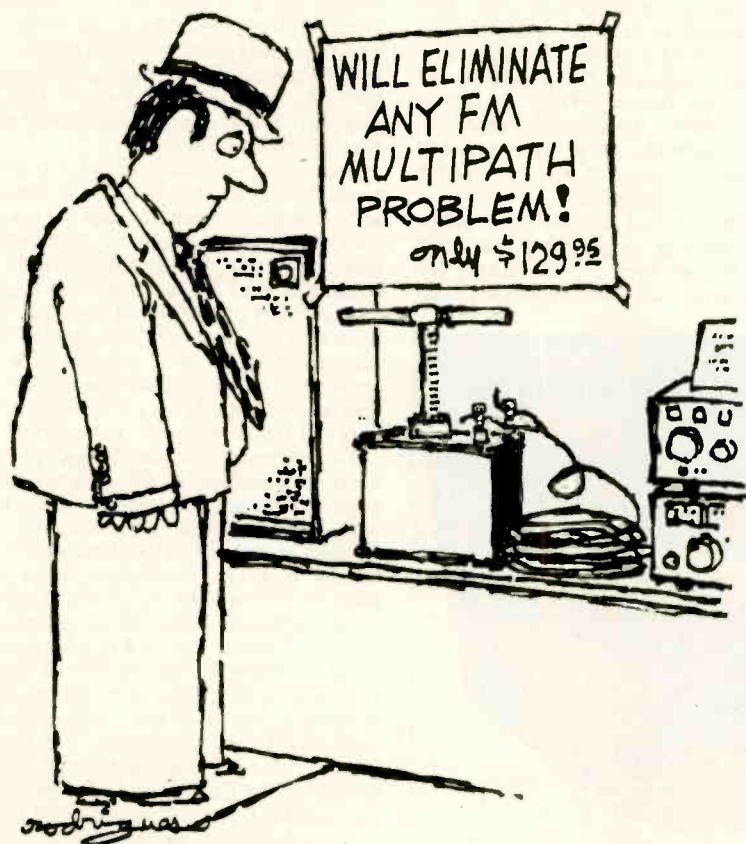
In addition to its auto-reverse operation, the Nakamichi RX-505 includes a number of unusual automatic features. During playback, for example, if the SKIP switch is turned on and a blank section longer than 30 seconds is encountered, the cassette goes into fast forward to the end of the tape. If the REVERSE MODE switch is also on, playback will then continue from the other side. During recording, if the AUTO REC PAUSE switch is on and no signal is recorded for 45 seconds,

the tape is rewound the equivalent of 30 seconds and the deck goes into record-pause mode. If the AUTO FADE switch is on during recording, the deck detects the imminent end of a side some 20 seconds before the tape leader is reached and performs a smooth 2-second fadeout. The fadeout point is determined by measuring the hub speed differential. During auto-reverse recording, this same function then fades back up for the second side. Buttons are also provided for a slow (2-second) or rapid (1-second) manual fade down or up if desired during recording. The transport-function buttons may be pushed in any order without destructive consequences, and "punch-in" recording (beginning to record directly during playback, without stopping first) is also possible.

Additional front-panel controls are provided for selecting Dolby-B, Dolby-C, or no noise reduction, playback or source monitoring, insertion of an FM-multiplex filter and/or an infrasonic rumble filter, operation from an external timer, program-peek cueing (using the blank spaces between selections to count ahead or backwards), and memory rewind to stop or play. There is an output-level control that affects the signal level both at the rear terminals and at the front-panel headphone jack.

The rear panel of the RX-505 contains the usual line-in and line-out jacks as well as a DIN-type connector for use with a remote control. There are no microphone inputs. Overall, the RX-505 measures 17³/₄ inches wide, 5³/₄ inches high, and 11⁷/₈ inches deep, and it weighs about 22 pounds. Price: \$1,090. Nakamichi U.S.A. Corp., Dept. SR, 1101 Colorado Avenue, Santa Monica, Calif. 90401.

● **Laboratory Measurements.** We tested the playback response of the Nakamichi RX-505 with BASF's IEC-standard ferric and CrO₂ calibrated tapes and found it to be within +2.5, -1 dB throughout the tapes' 31.5- to 18,000-Hz range. Two things about the curves shown in the graph are noteworthy. First, the very low bass end does *not* have the typical peaks and valleys (often amounting to several decibels each way) that we usually en-



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Test Reports

counter. Second, there is a slight rise (1.5 dB for ferric, 2.5 dB for chrome) at the highest frequencies, which is typical of what we have found with other top-quality decks. Protests that the IEC tapes themselves are "hot" at the extreme high end have been received from several sources, and we're beginning to believe the concerned manufacturers.

Our sample of the RX-505 was supplied with the three Nakamichi tapes used for its setup, namely, EX-II (ferric), SX (chrome-equivalent), and ZX (metal), and we used these tapes for our evaluation. Magnetically, their behavior is essentially identical to that of Maxell UD XL-I, TDK SA, and TDK MA, which are typical premium formulations. The bias fine-tune control on the RX-505 was capable of altering the 20,000-Hz response by +2, -1 dB in the metal position and +6.5, -4 dB in the ferric and high-bias positions, a range that encompasses nearly every top tape brand we know about.

At the IEC 0-dB level (250 nanowebers per meter, which reads as +3 dB on the RX-505's indicators), the high-frequency record-playback response fell off as the tapes (not the deck) reached their saturation point. Naturally, the metal tape (ZX) held on the longest, reaching 16,000 Hz before dropping to -6 dB. When we turned the Dolby-C system on, however, as most users are likely to do, response with the metal tape at the 0-dB level went all the way to 20,000 Hz before dropping to -3 dB, which would be quite remarkable performance even for an open-reel machine. Even more remarkable, however, are the frequency-response curves at the usual -20-dB level, where response for all three tapes was within +0.5, -1 dB from below 100 Hz straight out to 20,000 Hz.

As is typical of LED recording-level indicators, "0 dB" on the RX-505 actually covers a range of values. Because the deck is designed to use the Dolby level (200 nWb/m) as its 0-dB reference point, we

used the output from our Teac MTT-150A Dolby calibration tape to set our reference point. This was near the top of the range covered by the RX-505's 0-dB indicator lights, which could be made to turn on initially at a level about 1.5 dB below Dolby level. At the 0-dB level, third-harmonic distortion of a 315-Hz test tone measured 0.38 per cent with Nakamichi EX-II (ferric), 0.64 per cent with SX (CrO₂-equivalent), and 0.26 per cent with ZX (metal). Reaching 3 per cent third-harmonic distortion required increasing the recorded output level by 5.4, 4.3, and 8.9 dB, respectively. The unweighted signal-to-noise ratio (S/N), without noise reduction, measured 52.4 dB (EX-II), 55.8 dB (SX), and 59.4 dB (ZX). Dolby-B and IEC A-weighting improved the S/N figures to 67.2, 69.6, and 73 dB, respectively. A-weighted S/N's with Dolby-C were 73.1, 76, and 78.4 dB (in the same order). All of these are state-of-the-art figures, and they could be made to look about 2 dB higher (better) by using CCIR rather than A-weighting.

Wow-and-flutter, measured with our Teac MTT-111 test tape, registered 0.03 per cent wrms and 0.064 per cent according to the stricter DIN peak-weighted measurement. The RX-505 ran 0.4 per cent fast and required a 50-mV input level for a 0-dB reading. Fast-forward and rewind times for a C-90 cassette were 75 and 70 seconds, respectively, which is very fast—faster, indeed, than many decks can manage with C-60 cassettes. Dolby tracking, checked at -20-, -30-, and -40-dB levels, was exceptionally accurate, being generally within 0.5 dB for Dolby-B or 1 dB for Dolby-C even out to 20,000 Hz. Maximum error was +1.5 dB in the 600- to 1,200-Hz range at -40 dB with Dolby-C.

● **Comment.** Just superb. Our ears and our hands could only confirm in use what our measurements showed on the bench, namely, that the RX-505 is a member of

that small, elite group of cassette decks that truly deserve the appellation "state of the art." From the solidity of the sonic image to the solid feel of the controls, we were consistently delighted. The overall sound had a transparent quality to it that we simply do not ordinarily find in cassette reproduction. Mechanical motor noise was nil.

We do have a few small quibbles. On a machine of this caliber, a ten-segment record-level indicator is out of place. The scale numbers are confusing (one of them has no lighted segment, and one of the lights has no number), and the scale calibration is not outstandingly accurate. In another area, while I prefer the Nakamichi system of separate pushbuttons to set bias and playback equalization, many users may prefer automatic settings. (This is a little like preferring automatic transmission to a stick shift; the Nakamichi is geared to the sports-car personality.)

When we were making instant comparisons between source and tape, the Dolby-B system occasionally seemed to induce some slight high-frequency loss, though Dolby-C did not. Apart from possible tape saturation on passages where we would not have expected it, our measurements suggest no explanation for this. In any case, however, Dolby-C is the system that would normally be used. We did find one passage—the long, deep-bass (32-Hz) organ-pedal introduction to *Also sprach Zarathustra*—where at high listening levels residual hiss could be heard even with Dolby-C, but this was the exception rather than the rule, and we doubt that any other deck with Dolby-C would do better.

In short, it is hard to imagine better analog dubbing than we obtained with the RX-505. Whether auto-reverse is an important consideration in a given system or not, the RX-505 is a prescription for sonic happiness for even the most critical audiophile.

—Craig Stark
Circle 140 on reader service card



Roy Schneider

ADCOM GFP-1A PREAMPLIFIER

HIRSCH-HOUCK
LABORATORIES

ADCOM'S GFP-1A preamp is a high-quality unit that features a built-in decoder for playing records made with the CX noise-reduction encoding process and separate input selectors for simultaneous listening and recording from different program sources. Each of the two front-panel SELECTOR knobs can control two tape decks, two record players, a tuner, and an additional high-level input marked DAD/VIDEO ("DAD" stands for

digital-audio disc). This last can be used for a Compact Disc player, a video-related source such as the audio output of a TV receiver, a video-cassette recorder, a video-disc player, or any other high-level source. The INPUT knob selects one of these program sources for listening, and the RECORDING knob connects one to the tape-recording jacks in the rear of the unit. The RECORDING knob also has two tape-dubbing positions for copying a tape from either tape deck to the other as well as an off setting that completely isolates the tape-output circuits.

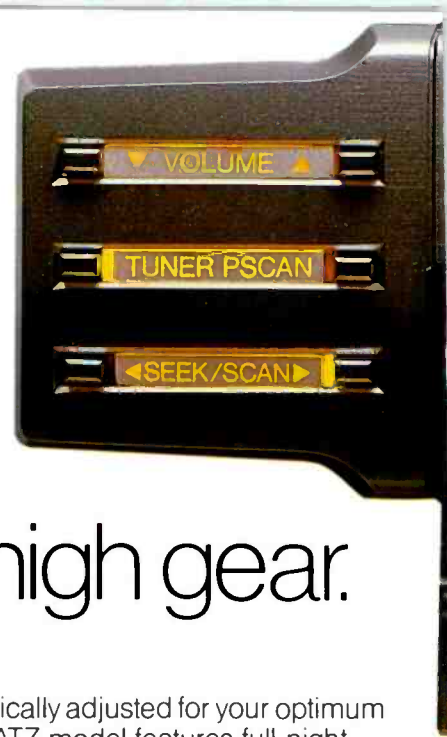
Above the PHONO 1 input jacks on the rear of the GFP-1A is a slide switch to increase the sensitivity of this input from its normal 2.5 millivolts (mV), a value suitable for moving-magnet cartridges, to 0.5 mV while lowering the input impedance; this permits direct hook-up of most moving-coil cartridges. The sensitivity of the PHONO 2 input is fixed at 2.5 mV, but there is a switch to select an input capacitance of either 47, 150, or 220 picofarads
(Continued on page 33)

ATZ computer-controlled
car stereo receivers

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You can select either the time or the frequency to appear on the four-inch wide LCD panel. This LCD

panel can be electronically adjusted for your optimum viewing angle. Each ATZ model features full-night illumination of all the controls. Plus each unit remains in the clock mode when the ignition is turned off, without any drain on your car's battery.

Everything on these ATZ car stereo receivers has been engineered for unequalled performance with you in mind.

The ATZ100 packs 10 watts of total system power.

The 10-watt ATZ200 offers Loudness Compensation. This feature increases both the critical bass and treble frequencies, so low-level listening is easier to enjoy. The ATZ200 also has an Automatic Tape Search.

The ATZ300 offers 20 watts of total system power and adds on Dolby® B. This serves to reduce annoying high-band frequency tape hiss when you're playing Dolby B encoded tapes.

The ATZ400, 30-watt system, adds on Audible Function Confirmation to give a tonal signal confirmation to your command entries. The ATZ400 also has extra computer-controlled tape features such as Automatic Program Repeat, Tape Seek and Intro Tape Scan. Intro Tape Scan plays the beginning five seconds of each song on a tape until you stop the scan on the desired selection. And the Pre-Set Memory Scan will automatically play a five-second sampling of each of your 6 pre-set AM or FM stations.

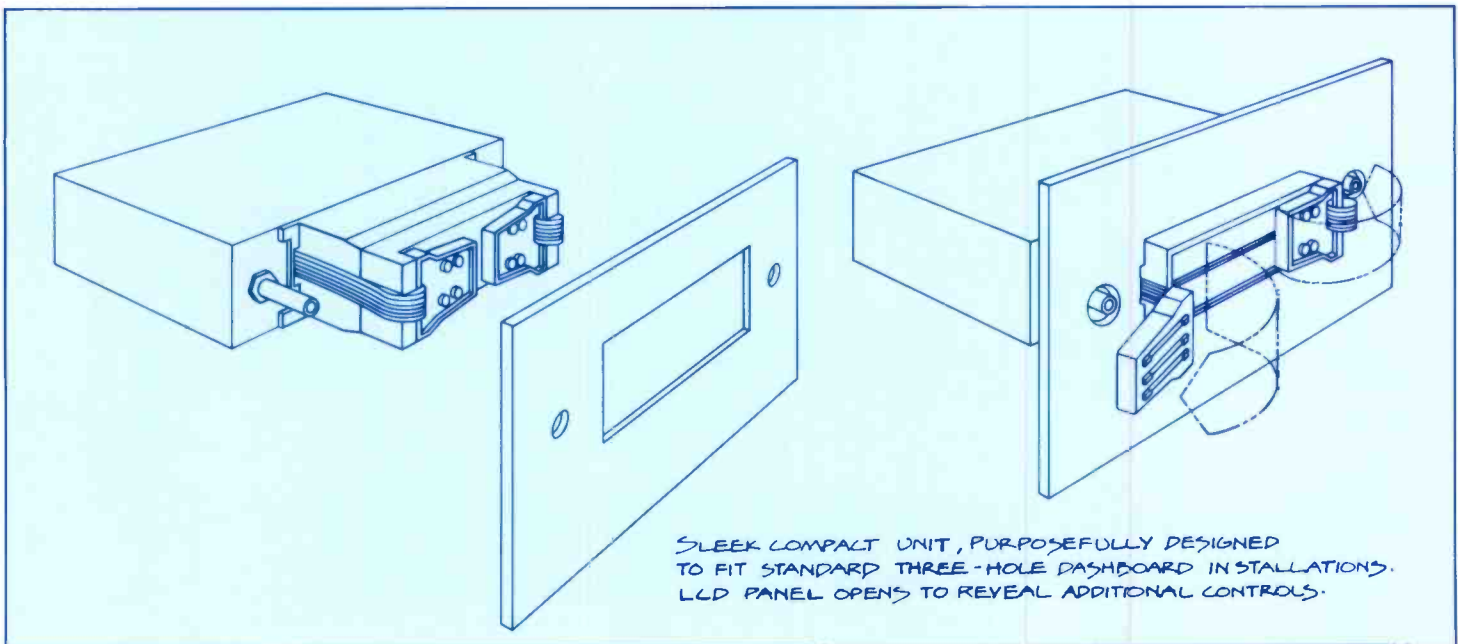
Packing a big 40 watts of power, the ATZ500 has all the above elements, plus Dolby B and Dolby C. They help make your listening virtually free of background tape hiss and noise. The ATZ500 further offers a Tuner Advance that alerts you when the signal strength has dropped to an unacceptable level, then advances the tuner to the next pre-set station frequency. If the receiver is out of range on all pre-set frequencies, it will automatically search for the next high quality broadcast signal.

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	CHASSIS SIZE	LOUDNESS COMPENSATION	AUTOMATIC TAPE SEEK	DOLBY 'B'	AUD. FUNCTION CONFIRMATION	AUTO. PROGRAM CONFIRMATION	PROGRAM TAPE REPEAT	INTRO. TAPE SEEK	PRE-SET MEMORY SCAN	DOLBY 'C'	TUNER MEMORY SCAN	TOTAL ADVANCE
ATZ100	U											10
ATZ200	U	●	●									10
ATZ300	S	●	●	●								20
ATZ400	S	●	P	●	●	●	●	●	●			30
ATZ500	S	●	P	●	●	●	●	●	●	●		40

U = Universal Chassis
 S = Standard Chassis
 P = Programmable

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across a fixed value of input resistance.

CX decoding is available only through the PHONO 2 input. There are separate screwdriver-adjustable controls for each channel on the rear above the capacitance-selection switch, along with two LED indicators marked UNDER and OVER. A 7-inch, 33 $\frac{1}{2}$ -rpm CX calibration record is supplied with the GFP-1A; it contains 1,000-Hz tones recorded separately for each channel at a 3.54-cm/s (rms) groove velocity. To calibrate the system for the output level of a particular cartridge, thus ensuring proper decoding, the CX button on the front panel is engaged and the calibration record is played while the control for the corresponding channel is turned. The setting is correct when both indicator lights go off.

Other features on the rear panel include the phono jacks for the other signal inputs and outputs—including two sets of tape-recording jacks and two parallel pairs of main-output jacks—and a set of signal-processor input and output jacks, which are normally joined by jumper plugs. Anything connected to the signal-processor jacks is always in the signal path, and they can be used for any signal-processing accessory that would otherwise be connected in a tape-monitor loop, such as an equalizer or a noise-reduction system. There are also three a.c. outlets on the rear of the preamplifier, one of them switched.

The front panel of the GFP-1A is functional and uncomplicated. At the far right is a large volume knob, and next to it are the pushbuttons to engage the CX-decod-

ing circuits and the loudness compensation. In the center of the panel, next to the two SELECTOR knobs, is a group of four buttons. One button activates the tone-control circuits (which are normally bypassed), and one parallels the two channels for mono operation. The other two buttons activate the signal filters; one filter attenuates low frequencies for rumble reduction, and the other rolls off ultrasonic frequencies (-3 dB at 25,000 Hz) to prevent slew distortions in power amplifiers prone to such problems. Since neither filter has any audible effect on programs, Adcom recommends that both be left engaged at all times. To the left of these switches are knobs for bass, treble, and balance adjustment, a headphone jack, and a heavy-duty power switch.

The Adcom GFP-1A is finished entirely in black with white markings. It measures 19 inches wide, 3 inches high, and 11 $\frac{3}{4}$ inches deep exclusive of the front-panel knobs and the rear connectors or jumpers. Weight is approximately 11 $\frac{1}{2}$ pounds. Price: \$375. Adcom, Dept. SR, 9 Jules Lane, New Brunswick, N.J. 08901.

● **Laboratory Measurements.** No technical specifications were available to us when we tested the Adcom GFP-1A (a complete operating instruction manual was provided, however). The sensitivity of the preamplifier at its maximum volume setting (for the standard 0.5-volt output at 1,000 Hz into a standard IHF load) was 31 millivolts (mV) through the high-level inputs, 0.52 mV for the 2.5-mV phono inputs, and 0.14 mV for the

0.5-mV phono input. The unweighted signal-to-noise ratio (S/N) was 82 dB (high-level), 77 dB (phono, 2.5 mV), and 52 dB (phono, 0.5 mV). With A-weighting, these figures improved to 85, 80.5, and 60 dB, respectively.

The 2.5-mV phono input overloaded at 304 to 332 mV, depending on frequency, and the 0.5-mV input overloaded at 78 to 97 mV. The PHONO-1 input termination was 38,000 ohms in parallel with 225 picofarads at the 2.5-mV setting (only 360 ohms at the 0.5-mV setting). The PHONO-2 input resistance was also 38,000 ohms, which is lower than the typical 47,000 ohms but still acceptable for any cartridge, and the actual capacitance was approximately 40, 150, or 225 picofarads depending on the switch setting.

The output waveform clipped at levels of 11.3 to 12.5 volts over the 20- to 20,000-Hz frequency range. The harmonic distortion in the output was a constant 0.0027 per cent at 1,000 Hz for all output levels from 0.1 to 5 volts, reaching 0.022 per cent at 10 volts. At 20 Hz the distortion was between 0.0018 and 0.005 per cent over the full 0.1- to 10-volt range, and at 20,000 Hz it ranged between 0.004 and 0.006 per cent up to 5 volts and reached only 0.0125 per cent at 10 volts.

The frequency response was down 0.1 dB at 20 and 20,000 Hz, reaching -2.2 dB at 5 Hz and -3 dB at 77,000 Hz. The tone-control characteristics were excellent. The bass control had a sliding turnover frequency; at its middle settings it affected the response only below 100 Hz, with a 7- to 9-dB control range at 20 Hz. At its maximum settings, the turnover frequency was about 400 Hz, with a full range of 18 to 20 dB at 20 Hz. The treble-control curves were hinged at about 3,000 Hz, with a maximum range of about 14 dB at 20,000 Hz. The midrange response was unaffected even by extreme settings of the tone controls.

The low-cut filter reduced the response by 3.5 dB at 20 Hz, and the ultrasonic-filter response was down 1.5 dB at 20,000 Hz. The loudness compensation moderately boosted both low and high frequencies (below 200 Hz and above 10,000 Hz). The RIAA phono equalization was very accurate, varying only ± 0.5 dB from 20 to 20,000 Hz, and it was totally unaffected by cartridge inductance. A spectrum analysis of phono-preamplifier noise with and without the CX decoder in operation showed that the decoder provided a noise reduction of about 20 dB from 1,000 to 5,000 Hz, tapering off slightly to about 12 dB at 20,000 Hz.

● **Comment.** The construction of the GFP-1A is, to put it mildly, robust. The cabinet and chassis are made of steel, which accounts for much of the weight of the unit. With the cover removed you can see that everything is on a single large circuit board, with an open, uncluttered parts layout and a minimum of point-to-point wiring. All of this indicates probable long-term reliability.

There was nothing about the construction or design of the GFP-1A to which we could take exception—even its tone controls were outstanding in their ability to modify a music program without doing



"... Now, don't tell me, Maurice, let me guess. With that quad thing, we sat in the middle of the room with speakers all over the place. Now, with this laser-beam gadget, we put on lead-lined aprons and listen to it while we hide behind the sofa..."

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violence to it. (We hardly ever use tone controls, finding them to be more of an ill than a cure, but those on the Adcom GFP-1A are happy exceptions to that rule.) We also found that with medium-impedance headphones the volume was as loud as we would ever care to listen to, in striking contrast to the headphone outputs of some other hi-fi components.

We judged the overall effectiveness of

the CX decoding system by playing a number of CX-encoded records. The results were excellent. Not only was there no evidence of "pumping" or other irregular operation, there was a virtually total elimination of audible noise. Our past experience with CX decoders, either as accessories or as part of a receiver or preamplifier, has been uniformly satisfactory, and in the GFP-1A the system has

certainly been incorporated in a flawless manner.

Both on the test bench and as part of a hi-fi system, the Adcom GFP-1A left nothing to be desired. It has all the flexibility one could ever want combined with smooth, silent, and bug-free operation. An excellent preamplifier at a very reasonable price.

—Julian D. Hirsch

Circle 141 on reader service card



Roy Schneider

AR STEREO REMOTE CONTROL

HIRSCH-HOUCK
LABORATORIES

CONNECTED in the tape-monitor loop of an amplifier or receiver or between a preamplifier and power amplifier, the AR Stereo Remote Control (SRC) provides wireless remote control of system power, volume, and balance as well as permitting replacement of the regular program source by any high-level source connected to its external-processor-loop (EPL) jacks. The SRC also has tape input and output jacks to replace the ones in the amplifier, with tape playback selected by a flush-mounted button on the top.

The black plastic case of the AR SRC is 11½ inches wide, 5½ inches deep, and 1¾ inches high. It consumes only about 6 watts from a 120-volt a.c. power line and is normally left energized at all times. On its front edge are the receiving window for the infrared signals sent by the battery-powered handset and five easily visible green or red status lights. One green light indicates that the system power is switched on and another that the stereo channel levels are balanced. A third green light goes on only while a signal is being received from the remote unit. One red light shows that the 20-dB MUTE function is activated (the SRC always comes on with the audio output muted to prevent inadvertent overdriving of the speakers), and another lights when the EPL source is selected. The various input and output jacks are located on the rear edge of the SRC together with a single switched a.c.

outlet that can control up to 600 watts.

The remote-control handset is also black and resembles a scaled-down version of the main SRC unit. It has four flush-mounted press plates pivoted at the middle. The POWER control turns the system on or off, and the VOLUME control raises or lowers the volume, depending on which side of the plate is held in, in steps of 1.5 dB over a range of 75 dB, with a "full off" limit of at least -85 dB. The BALANCE control operates in a similar manner, shifting the balance to the left or right as the corresponding side of the plate is pressed. Finally, the MUTE/EPL plate controls the muting and program-source switching; each side is used for both on and off functions on alternate operations.

These eight basic remote-control functions are expanded to a total of fifteen by using the POWER switch as a kind of "shift key." Just as a typewriter's shift key selects alternative characters for the same keystrokes, pressing the "on" side of the SRC's POWER control plate after the system has already been turned on makes alternative functions for the other controls available. The shift mode lasts for 2 seconds after POWER is pressed, and then the controls revert to their basic functions.

In the shift mode, the VOLUME control initiates a more rapid change of volume level than normal, and pressing one side of the BALANCE control silences the other channel completely. If shift operation is followed by pressing EPL, the two channels are instantly balanced; if MUTE is pressed, instead of the regular 20-dB volume reduction, the signal is completely silenced. Finally, if the shift operation is followed by pressing the other side of the POWER plate to turn the system off, a "sleep switch" function is activated and the system stays on for another 30 minutes before automatically switching off.

The AR SRC has a rated maximum gain of unity (0 dB) with a nominal output level of 1 volt and a rated peak output at clipping of 4.5 volts. Its distortion is rated at 0.01 per cent or less from 20 to 20,000 Hz at a 1-volt rms output, and the A-weighted signal-to-noise ratio is better than 95 dB relative to 1 volt at the maximum volume setting (the noise level decreases at lower settings). The frequency response is specified as ±0.25 dB from 6 to 60,000 Hz at any volume-attenuation setting up to 50 dB. The input impedance is 100,000 ohms for the selected input and 33,000 ohms for the other input; the output impedance is 330 ohms for the main output and 220 ohms (plus the source impedance) at the tape and EPL outputs. Price: \$159.95. Teledyne Acoustic Research, Dept. SR, 10 American Drive, Norwood, Mass. 02062.

● **Laboratory Measurements.** We tested the AR SRC with a standard load of 10,000 ohms in parallel with 1,000 picofarads. It passed our bench tests with flying colors. The output clipped at 3 volts rms (roughly equal to the rated peak level of 4.5 volts). The distortion at 1,000 Hz was less than 0.003 per cent at any output level up to 3 volts. The A-weighted noise was -97 dB referred to 1 volt at maximum gain. The channel separation was 89 dB at 1,000 Hz, and crosstalk from the EPL input to the main input was better than -78 dB in the midrange (1,000 Hz or below) and -42 dB at 20,000 Hz. The isolation from the tape input to the main input was 50 dB at 1,000 Hz. The frequency response was flat within +0, -0.3 dB from 5 to 50,000 Hz, reaching -1 dB at 100,000 Hz and -3 dB at 130,000 Hz. The attenuation steps were quite accurate, typically 1.2 to 1.8 dB over the full control range. At the normal (lower) rate of volume change, going from minimum to maximum volume required about 10 seconds. In the shift mode it took about 4 seconds.

● **Comment.** The AR SRC proved to be an extremely useful adjunct to a music system. It always worked as expected, with never a trace of an unwanted sound or anomalous behavior. Like most wireless remote controls, this one operated with full effectiveness from anywhere in the room and usually did not require that the handset be pointed at the main units. (We even used it at the other end of the room, facing away from the receiver, by bouncing the infrared signal from a wall.)

The SRC has at least one other unexpected application that for some users

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could supersede its advertised purpose. It has all the functions of a high-quality preamplifier except phono equalization and tone controls. If your regular programs are from high-level sources such as a tuner, tape deck, or CD player, the SRC provides all the controls you are likely to

need, including switching between two of these sources (or three if you use the manual tape switch). This is in addition to its full remote capabilities, compact size, low cost, and superlative electrical performance. Not many preamplifiers can match the low distortion, flat response,

and almost unmeasurable noise of the SRC, and those that do are usually considerably more expensive. All in all, the AR SRC is an intriguing, useful product and a good value as well.

—Julian D. Hirsch

Circle 142 on reader service card



Roy Schneider

TECHNICS SL-QX300 TURNTABLE

HIRSCH-HOUCK LABORATORIES

THE Technics SL-QX300 is an automatic direct-drive turntable whose tone arm accepts only P-mount cartridges. Since these cartridges have standardized dimensions, weight, and tracking requirements, any make or model can be plugged into the SL-QX300's tone arm and used without further setup adjustments. The arm is preset for the standard P-mount 1.25-gram tracking force as well as the corresponding antiskating force. The P-mount standards allow the tracking force to vary by ± 0.25 gram from its nominal value, however, so there are calibrated controls that enable both the tracking and antiskating forces to be reset as low as 1 gram or as high as 1.5 grams.

Rotation of the two-speed turntable is controlled by a quartz-crystal phase-lock system. The speed, $33\frac{1}{3}$ or 45 rpm, is selected by pressing the corresponding button on the upper front of the turntable base. If desired, the speed can be adjusted over a nominal ± 6 per cent range by a calibrated slide control. A RESET button instantly returns the turntable to its nominal speed. The turntable speed remains quartz-locked even when under control of this vernier adjustment. Illuminated

stroboscope markings under the platter are visible from the top of the turntable while it is in motion. Unlike many stroboscope systems, however, this one does not provide an independent check on turntable speed since the marks are always stationary during normal operation of the turntable—even when the speed is varied using the pitch control.

The platter, which weighs about 2 $\frac{3}{4}$ pounds, including its heavy rubber mat, contains an integral magnet that serves as the rotor of the direct-drive motor. A mechanical sensor arrangement that protrudes slightly through holes in the mat detects the presence of a disc on the turntable and sets the arm-indexing diameter automatically for 7- or 12-inch records. (The speed must still be set manually.) If there is no record on the turntable, the arm will not leave its rest during automatic operation.

All normal operation of the record player is controlled by a single large, rectangular plate on the front panel that starts and stops the unit on alternate presses. At the start, the platter spins, and the arm sets the pickup down in the appropriate lead-in groove as determined by the record-diameter sensors in the platter. After playing or if the control plate is pressed a second time, the arm lifts and returns to its rest, and the motor shuts off. The player can also be operated manually; lifting the arm from its rest starts the motor and returning it turns the motor off. Next to the START-STOP control plate is a sliding cueing control. Both are accessible when the dust cover is down.

The tone arm of the Technics SL-QX300 is a straight aluminum-alloy tube with an offset head fitted with a finger lift. The P-mount cartridge is locked in place by a screw passing through the head. The fixed counterweight has a knob at its rear that adjusts an internal threaded weight to vary the tracking force; the antiskating adjustment is on the base of the arm. The platter and tone arm are suspended on springs from the die-cast silver-colored aluminum base, which is itself supported by four resilient feet, to provide isolation from external shock and vibration. The hinged, clear-plastic dust cover remains open at intermediate angles.

The Technics SL-QX300 measures approximately 17 inches wide, 4 inches high, and 14 $\frac{1}{8}$ inches deep. It weighs just under 13 $\frac{1}{4}$ pounds. Price: \$240. Technics, Dept. SR, One Panasonic Way, Secaucus, N.J. 07094.

● **Laboratory Measurements.** For our tests, we installed a Shure V15 LT P-mount cartridge in the arm of the Technics SL-QX300. It was operated at the rated 1.25 grams tracking force. The tracking error of the arm was less than 0.5 degree per inch of radius, and over most of the record surface it was less than 0.3 degree per inch. The tracking-force calibration was accurate within 0.05 gram at the nominal setting. The preset antiskating calibration also appeared to be optimum.

Measured turntable flutter was ± 0.07 per cent DIN (weighted peak) and 0.045 per cent JIS (weighted rms), principally at frequencies under 10 Hz. Rumble was also low, -37 dB unweighted and -61 dB with ARLL weighting, and most of its energy was also below 10 Hz. The turntable-speed adjustment range was $+8.1$ to -6.5 per cent at either nominal speed. The start cycle required 14 seconds from the time the control was pressed to when the stylus was set down in the lead-in groove. Once the pickup lifted from the eccentric groove at the end of a record, the turntable required about 11 seconds to shut off.

The tone-arm wiring and the connecting cable had a low capacitance to ground of 80 picofarads per channel. The effective tone-arm mass was a low 8.5 grams without a cartridge and 14.5 grams with the Shure cartridge (which has the same standard weight, 6 grams, as any other P-mount cartridge). The compliance of the cartridge stylus and the tone-arm mass resonated at 9 Hz, and the resonance was so well damped that it was difficult to measure with the Shure ERA V "Audio Obstacle Course" test record. The arm had only a slight outward drift during its descent in cueing, repeating about 2 seconds of the record. (Continued on page 38)



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Test Reports

The base isolation of the SL-QX300 was only average, but the transmission of vibration through the mounting system was confined to frequencies between 18 and 100 Hz, with larger peaks at 18 and 40 Hz and a smaller one at 90 Hz.

● **Comment.** The mechanical operation of the Technics SL-QX300 was quiet and smooth, with everything working just as it was supposed to. Its performance as a record player was flawless. Our only criti-

cism concerns the stroboscope system, which conveys no useful information about the turntable speed, but the instruction manual does state clearly in at least two places that the dot pattern on the platter will always be stationary during normal operation.

Some P-mount arm-cartridge combinations have been accused of lacking enough rigidity to play records properly, but the SL-QX300's arm seemed to clamp the cartridge we used as firmly as

any conventional mounting system could. As I have noted before in these pages, the P-mount system appears to be an excellent solution to the problem of accurately mounting and aligning a phono cartridge, which is one of the most critical, and has been one of the most onerous, tasks in setting up a stereo system. Certainly you could not ask for a record player that is simpler to set up and use than the SL-QX300. —Julian D. Hirsch

Circle 143 on reader service card



Roy Schneider

FOURIER 6 SPEAKER SYSTEM

HIRSCH-HOUCK
LABORATORIES

THE Fourier 6 is a compact two-way speaker system that is rated to deliver an essentially uniform on-axis output from 55 to 20,000 Hz. It is a relatively efficient speaker, with a rated sensitivity of 90 dB sound-pressure level (SPL) at 1 meter with a 1-watt input. Its rated power-handling capability of 200 watts of program material makes it compatible with some of the most powerful amplifiers on the market. Nominal impedance is 8 ohms.

The Fourier 6 has a 6½-inch polypropylene-cone woofer that operates in a 0.65-cubic-foot fourth-order vented enclosure. Frequencies above 3,000 Hz are radiated by a 1-inch soft-dome tweeter. The crossover filter has slopes of 24 dB

per octave. The two drivers and the port opening are vertically aligned on the front of the attractive, walnut-veneered cabinet, which has beveled edges to minimize diffraction effects.

The black, foam-plastic grille is retained by plastic hook fasteners. The connection terminals in the rear of the cabinet are binding posts with the standard ¼-inch spacing. There are no external controls. The cabinet measures 17¼ inches high, 9½ wide, and 10½ inches deep. The system weighs 22½ pounds. It is suitable for bookshelf mounting, either horizontally or vertically, and matching walnut stands are available for floor placement. Price: \$499 per pair; floor stands, \$69 per pair. Fourier Loudspeaker Systems, Inc., Dept. SR, 540 Nepperhan Avenue, Yonkers, N.Y. 10701.

● **Laboratory Measurements.** We used the optional floor stands for testing and listening to the Fourier 6 speakers. The stands raise the speaker cabinets about 12 inches from the floor and angle them slightly upward, and we placed them a couple of feet in front of a wall.

The on-axis frequency response, measured with our IQS FFT analyzer, was uniform within ± 2.5 dB from 180 to 16,000 Hz. From 5,000 to 15,000 Hz, it varied only ± 1 dB. The averaged room response was also very smooth, sloping downward slightly with increasing frequency above a few hundred hertz. The close-miked woofer response reached its maximum at 65 Hz, varying ± 2 dB from 50 to 400 Hz.

The sensitivity of the Fourier 6 measured even higher than rated: 92 dB SPL at 1 meter with an input of 2.83 volts (1 watt into 8 ohms). Its true impedance was about 5 ohms in the 200- to 300-Hz range and as low as 3.5 ohms at 10,000 Hz, although over much of the audio range it was at least 6 to 8 ohms.

We measured the woofer distortion at a constant input of 2.26 volts (which gave a 90-dB SPL in the midrange). The distortion proved to be unusually low for a speaker of this size—less than 4 per cent down to 37 Hz (measurements made at the port opening were used for frequencies below 60 Hz, where the port output predominated). The speaker had good phase characteristics. The group delay, as measured by the IQS system, varied only ± 0.4 millisecond over most of the audio range and was within 0.2 millisecond above 9,000 Hz.

● **Comment.** The sound of the Fourier 6 totally belies its size. It is a tiny speaker with a full-sized sound. We found the bass both plentiful and clean, and the balance of sound was fully comparable to what we usually experience with many far larger systems. We drove the speakers with amplifiers rated to deliver at least 200 watts per channel and soon overcame any hesitation we might have had concerning their ability to absorb high-power signals. As long as there is no amplifier clipping, there is probably little danger in driving these speakers with any amplifier sold for home use.

While the Fourier 6 is not an inexpensive speaker if it is judged by its size, its sound quality is commensurate with its price, and its styling is about as attractive as a simple rectangular box enclosure could be. On its stand, the Fourier 6 somehow does not look as small as its dimensions suggest. In any case, listening to this speaker makes it very easy to forget about such considerations and simply enjoy a quality of sound not usually heard from speakers of this size.

—Julian D. Hirsch

Circle 144 on reader service card

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

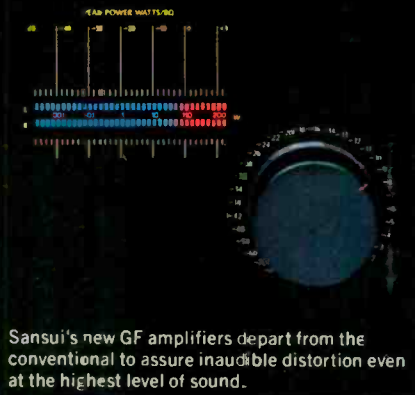
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The AU-D77X and TU-S77X make the perfect tuner/amp combination for people who appreciate great technology as much as they enjoy the silence in great sound. Get the "Silent Treatment" at your Sansui audio specialist, or write: SANSUI ELECTRONICS CORPORATION, Lyndhurst, NJ 07071; Carson, CA 90746; Sansui Electric Co., Ltd., Tokyo, Japan



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*AU-D77X—110 watts, 0.0028% THD; AU-D11 MKII—130 watts, 0.0025% THD. Minimum RMS, both channels driven into 8 ohms, from 10-20kHz.

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And you're just as selective in choosing your recording tape. TDK knows that. So we developed a line of high performance audio cassettes that meet your critical requirements.

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CHOOSING TAPE

BY PETER W. MITCHELL

A CASSETTE DECK is a wonderfully useful tool. You can dub tapes for your car or portable stereo player, compile collections of your favorite songs, preserve broadcasts of concert performances that are unavailable on disc or prerecorded tape, and even venture forth with microphones to make your own original recordings. But with dozens of brands, formulations, and lengths of tape to choose from, picking the best blank cassette for each job can be a confusing challenge.

Fundamentally, a tape recorder is a time machine—a device to capture sounds, preserve them indefinitely, and reproduce them whenever you want. The success of this process, of course, depends on the ability of the recorder and tape to preserve and reproduce an accurate replica of the original sound. And that, it turns out, depends not only on the quality of the recorder and the tape but also on optimum matching of the two.

Cassette recording is so remarkably convenient that we tend to forget just how complicated the process really is. The recorder/tape relationship is complex because tape is inherently a nonlinear recording medium, which means that it responds differently to different signals. In order to achieve good results—low distortion, flat response, and wide dynamic range—the recorder must condition (alter) the signal before recording, using bias and equalization (EQ), and then apply further corrections in playback.

Bias, an ultrasonic tone mixed with the signal during recording to reduce distortion, is actually the same wave-

form that is fed to the erase head to wipe out old recordings. It is used at a much lower level for biasing than for erasing, but, even so, a certain amount of “self-erasure” occurs during the recording process—especially at high frequencies, which tend to be recorded near the surface of the tape while low frequencies penetrate deeper into the tape’s magnetic coating.

To compensate for this and other losses, a steep high-frequency treble boost, “recording equalization,” is applied to the audio signal before it is fed to the tape. Additional equalization is applied in playback, mainly to compensate for the fact that magnetic heads have a response that naturally slopes upward at 6 dB per octave rather than being level. If all else is working properly, using the right amounts of bias and equalization should enable a recorder to produce an accurate replica of any original sound.

USE THE RIGHT TAPE TYPE

But the “right” bias and EQ depend on the characteristics of the tape itself—its sensitivity to the recording signal, the amount of bias that it needs for minimum distortion, and its “coercivity” (a measure of its resistance to erasure and thus an indicator of how much bias can be used before excessive self-erasure occurs). The front-panel switches on cassette decks generally provide coarse matching of bias and EQ for two to four types of tape. In order to promote standardization of these settings and thus greater machine/tape compatibility, the IEC (International Electrotechnical Commission) has defined four basic types of recording tape and selected one formulation of

each type that recorder manufacturers can use for factory calibration of their machines’ bias and EQ settings. We’ll consider the characteristics, advantages, and disadvantages of each type, starting with the most expensive and potentially highest-fidelity type and working down to the “budget” varieties.

Type IV: Metal-Particle Tape. The magnetic particles in the coatings of metal tapes are made of pure iron rather than an oxide (a compound of oxygen and metal). The metal-particle tapes have the highest coercivity and the greatest “headroom,” especially at high frequencies.

What high headroom gives you is the ability to record at higher peak levels without danger of dull-sounding highs or a mushy midrange because of tape saturation or overload. Metal tape is *not* quieter than other types,

but because it can be recorded at higher levels, you can get a better overall signal-to-noise ratio.

When to use metal: This is the tape of choice for the most demanding applications, such as on-location live recording, especially of music that has extreme dynamic contrasts (a Mahler symphony, for example) or that is particularly strong in highs (a jazz combo with brilliant brass and percussion sound, say). Use metal also for dubbing recordings that capture the full, uncompressed dynamic range of live music, such as wide-range digital Compact Discs or dbx-encoded records (decoded back to full dynamic range *before* taping).

When not to use metal: It would be silly to waste money on metal tape to dub program sources that have already been elaborately processed to smooth out spiky high-frequency transients and minimize overall dynamic contrast. Most radio and TV broadcasts, especially of pop music, fall into this category. The more uniform the sound is in character or volume level, the less you need metal (or any other premium-priced tape).

Type III: Ferrichrome (FeCr). Ferrichrome is a hybrid tape with a base layer of premium ferric oxide for the low and midrange frequencies topped with a thin coating of chromium dioxide for enhanced treble performance.

When to use ferrichrome: Some audiophiles favor FeCr tapes for playback in a car because the ferric-oxide layer accepts high recording levels and yields a high playback level that helps to overcome the poor signal-to-noise ratio of some car tape players. Moreover, the chrome layer's enhanced treble sensitivity boosts the highs, which can help to compensate for a car player's poor high-frequency response. If the system already has adequate treble output you can turn down the treble control, restoring the correct tonal balance while reducing

the chrome layer's already-low tape hiss; this is a way to get better signal-to-noise performance from a car player that lacks Dolby or dbx noise reduction.

When not to use ferrichrome: If your cassette deck doesn't have front-panel switch settings to provide proper bias and recording EQ for ferrichrome tape, and many newer decks do not, you probably can't get the best performance possible from this type. And there's no need to try: with all the improvements that have been made in Type I and Type II tapes (see below), ferrichrome no longer has a clear advantage in car applications (or in any other). For this reason, Type III tape is probably an endangered species.

Type II: Chromium Dioxide (CrO₂) and "Chrome-Equivalent" Ferricobalt (cobalt-doped ferric oxide). The various "high-bias" formulations are similar in performance. The basic advantage of these tapes is that their enhanced treble sensitivity permits the use of "70-microsecond" playback equalization.

The 70-microsecond equalization brings the highs back down into balance while suppressing tape hiss by an extra 4 dB compared to Type I ferric-oxide tapes.

(To confuse the issue, some prerecorded music cassettes use chromium-dioxide tape but 120-microsecond playback EQ, which is normally applied only to Type I tapes. The purpose is to exploit chrome's enhanced treble output to provide increased headroom for loud high-frequency signals rather than for lower noise

levels. You *cannot* do the same trick at home, because it usually requires modifying the tape deck to alter its recording EQ while retaining a high bias. If you set your deck for Type I bias while recording on Type II tape, the underbiasing will raise the distortion at low and middle frequencies.)

When to use chrome/ferricobalt: These are the tapes of choice for recording music that has extended quiet passages. Much of the drama of classical music, for example, depends on loud/soft contrasts, with crescendos that grow from a soft *pianissimo* to a loud *fortissimo*, and these are best appreciated if the soft passages aren't clouded by a veil of tape hiss. (True chromium-dioxide tape is, by a couple of decibels, the quietest of all tape types.) Type II is also recommended for recordings that will be played a great many times. Its high coercivity makes it less vulnerable to accidental erasure of highs by the magnetic fields generated by nearby speakers, motors, or TV sets or by the residual magnetism that accumulates in the metal parts of the tape deck itself. Chrome is also less vulnerable than ferric tape to "magnetostriction," a progressive loss of highs caused by the physical stresses in the tape as it bends around guides and pinch-rollers during each play.

When not to use chrome/ferricobalt: If your player has neither 70-microsecond EQ nor Dolby decoding, the combination of Type II's enhanced highs with Dolby encoding may produce an overbright sound that can't be corrected.

Type I: Premium-Grade Ferric Oxide. Normal-bias ferrics are the most popular variety, and there are nearly as many brands of Type I tape on the market as all the other types combined. There's a considerable range in quality among them.

The best ferrics allow you to record bass and midrange frequencies at very high levels without distortion.

When to use premium ferric: Type I tapes are suitable for most music recording. Their "standard" 120-microsecond playback EQ fits the greatest variety of cassette players, and the high output level of the best ferrics makes them ideal for playback in a car or portable player where noisy electronics may limit the dynamic range.

When not to use premium ferric: When a high-coercivity tape will do a better job (see above), or when a budget-priced tape is good enough (see below).

Type 0: Budget Ferric Oxide. This isn't an official IEC class, but there are many ferric-oxide tapes on the market whose performance is lower than the Type I standard. This group ranges from good "low-noise" normal-bias tapes that just happen to have lower output levels down to cheap, voice-grade formulations that are intended for use only in low-fi portable recorders.

There is no clear dividing line separating the medium-grade ferric-oxide tapes that meet the IEC Type I standard from the lower-grade ferrics that don't. One practical litmus test is to make a sample recording using Dolby noise reduction. A Type-0 tape will have either rolled-off highs or a playback level that is a few decibels lower than the original signal; in either case this will result in mistrack-

ing of the Dolby circuits in playback, causing a dull sound.

Ironically, the normal-bias setting on medium and budget-priced cassette decks is usually factory-calibrated for premium-grade ferric tapes, making budget-priced tapes sound unacceptably dull. More expensive decks are often equipped with extra tape-matching facilities (bias fine-tuning, adjustable Dolby record calibration, or an automatic microprocessor-controlled calibration circuit) that can "rescue" budget tapes for musical use. (Reduce the bias to bring the dull highs back up and raise the Dolby record-calibration level to restore correct Dolby tracking.) Thus matched, the only important difference between medium and premium-grade ferric tapes is in their dynamic range. The background noise level may be higher with the cheaper tape, and the recording level must be a few decibels lower if distortion is to be avoided.

On a deck that is calibrated for premium ferric tapes, you may find that budget tapes are so overbiased that they are too dull even for satisfactory speech recording. In that case, try this trick: record with the Dolby-B circuits on and play back with the Dolby off. Often the treble boost provided by Dolby encoding will be just what you need to offset the dulling caused by overbiasing, or at least close enough for clear and articulate voice recording if not for accurate reproduction of music.

MATCH YOUR DECK

No matter what tape type you buy, there's no automatic assurance that it will exactly match your recorder's factory settings. Within each tape type there are audible, and sometimes major, brand-to-brand differences in response. If your tape deck has a bias fine-tuning control or an automatic microprocessor-controlled tape-matching circuit, you can match your recorder to almost any tape.

If you don't have such conveniences, and if your deck's manufacturer doesn't specify what tapes were used on the production line, then you'll have to shop for tapes that match your recorder. This is particularly important when you're using Dolby, because errors in frequency response can cause mistracking in the noise-reduction circuits, producing a more severe brightening or dulling of the tonal balance in playback. After you find out what tapes deliver good results in your machine, you should settle on those tapes. Buy them by the

case, both to ensure consistent recording quality and to save money.

Matching the recorder with the tape often involves trial-and-error testing, using either music or FM interstation noise as a test signal. Conceptually the process is the same whether you are testing several tapes to find which works best or making trial recordings on one tape with various settings of the bias fine-tuning control to find the optimum value. The first step, of course, is to set the recorder's bias/EQ switching to match the type of tape you are using. For the initial phase of testing, any noise-reduction system should be switched off. Later it may be useful to test again with the noise reduction on; if there is any false brightening or dulling of the sound due to noise-reduction mistracking, a slightly different setting of the bias trimmer (or a different tape) may yield a more accurate result.

The goal of the test is to achieve a trial recording that matches the original sound as closely as possible. Broad-band noise, such as FM interstation hiss, is a good test signal because it has a constant character, making it easy for you to compare and judge whether the recording of the hiss is brighter or duller than the original. With most decks the noise should be recorded at a level between -10 and -20 dB to avoid saturating the tape at high frequencies. (The highs are boosted before recording, but this boost usually isn't reflected in the meter's indications.)

If you prefer, you can use music for your tests; to make comparisons easier, pick a selection that has a fairly constant volume level and a repetitive character. Record the music at a peak level of around -5 dB to be sure that tape saturation won't mislead your evaluation. For best results, pick music with strong high-frequency content. Small errors in bias or mismatches between recorder and tape have their greatest effect at high frequencies, so that's the area you should focus your attention on. If you want to achieve the very best match, turn your amplifier's treble control all the way up so that small differences in high-frequency response will be easy to hear. You may not be able to achieve an exact match, but careful trial-and-error testing will help you get the best performance that your recorder and tape can deliver. □

Peter W. Mitchell, one of hi-fi journalism's most prolific writers and former president of the Boston Audio Society, has his own electronics consulting firm.

TAPE EQUIPMENT:

BY CRAIG STARK

JUST as Porsches and Ferraris enthral car buffs, high-end tape recorders cast an irresistible spell over anyone who appreciates fine audio engineering and performance. And just as Toyotas, Volvos, and Chevies can meet most people's transportation needs at a more moderate price, many popular-priced tape decks offer adequate or even excellent performance and convenience features. But there is still that longing to enjoy the price-no-object performance and craftsmanship of the most exotic machines, to own "the best." Whether it is the faultless recording and playback accuracy or the velvety action of the transport mechanism that an audiophile covets, it is the aura of uncompromised excellence around high-end tape decks that inspires his passion for them.

Recently, "tape deck" has come to mean "cassette deck" for most people, but the high-budget recordist will consider open-reel machines and audio recording on video tape as well. Digital pulse-code-modulation (PCM) techniques and the new analog Beta Hi-Fi and VHS Hi-Fi systems enable high-quality audio to be recorded and played back on video-cassette tapes. The cassette, open-reel, and video-tape formats offer different options for recording live sound or dubbing from other sources.

CASSETTE DECKS

A dozen years ago, the cassette was the tape format that the "experts" (myself among them) almost unanimously agreed could *never* become a true high-fidelity medium. Then, in 1972, came the Nakamichi 1000, the world's first three-head cassette deck, which featured dual-capstan drive, the Dolby-B noise-reduction system (then relatively new), solenoid operation, a manual head-alignment mechanism, and peak-reading meters. Its design showed the way for a whole industry. Certainly there have been major improvements since then, but the fundamentals of cassette-recorder design haven't changed. What you look for nowadays in "state-of-the-art"

cassette-deck performance is basically what you looked for then: superlatively designed heads, transport mechanisms, and electronics. What makes one product state-of-the-art and another run-of-the-mill is usually the degree of effort the engineers are willing to put into perfecting these well-known basics.

Tape heads are the heart(s) of a recorder, and it is not surprising that the top-quality decks all use separate

IT IS THE AURA OF
UNCOMPROMISED
EXCELLENCE AROUND
HIGH-END TAPE DECKS
THAT INSPIRES AN
AUDIOPHILE'S
PASSION FOR THEM.

record and play heads—or at least separate record and play head *gaps* if there is a single record/play head assembly. A relatively wide gap (about 5 micrometers—millionths of a meter—abbreviated μm) is used for recording, where it is necessary to force the magnetic field through the depth of the tape's oxide layer. A very narrow head gap (roughly 0.7 μm) is used in playback to capture the highest audio frequencies without loss. Separate head gaps also permit a critical test of the quality of a recording—effectively instantaneous comparison between the signal going to the deck and playback of the just-recorded tape.

Most manufacturers who make three-head cassette decks house the recording and playback elements in a common case, known in the trade as a "sandwich" head. On well-made machines the performance of a sandwich head is on the same level as that of separate heads. But in decks where price is a significant constraint, sandwich heads may actually perform more poorly than single-gap combination record/play heads, despite the gap-width compromise of the latter. Wider manufacturing tolerances or

the use of less expensive materials subject to aging may result in less than perfectly parallel record and playback gaps, thus ensuring a built-in azimuth error. This alignment error, which sharply reduces high-frequency response, arises when the head gap is not at an exact 90-degree angle to the edge of the tape. On the other hand, single-case, separate-gap heads *can* achieve state-of-the-art performance, as witness the excellent Revox B710 Mk II and Teac Z-6000, both of which are certainly among today's top performers.

The most conservative three-head design, while costing more, eliminates all possibility of magnetic interaction and built-in azimuth error between the record and playback head elements by using physically separate heads, each with its own azimuth adjustment. This is the approach taken in the Tandberg TCD 3014 and the Nakamichi LX/ZX series. Since physically separate record and playback heads must be maintained in perfect azimuth alignment, the user needs to be willing to touch up the record-head azimuth occasionally. Also, the space between separate heads can lead to an azimuth error caused by tape slewing as a result of loose tolerances in the cassette shells themselves. Both Tandberg and Nakamichi provide built-in test signals and an easy way to make these adjustments on their top decks.

Today's ultimate in three-head design and azimuth adjustment, however, is the Nakamichi Dragon. On this deck the playback head automatically adjusts its own azimuth to match that of the signal it encounters, whether the recording was made by the head next to it or in a tape-duplication plant thousands of miles away. To achieve this, each of the playback-head sections of a single channel is split into an upper and a lower half, each half wound with its own coil. When there is no azimuth error, signals recorded across the whole width of the channel arrive at both halves of the split playback head simultaneously. If there is any azimuth error, however, the signals reach one half of the playback head a split second before they reach the other half, creating a

STATE OF THE ART

phase (time) difference. Suitably detected and amplified, this phase difference is used to create a control current for a motor that readjusts the playback-head azimuth until no further phase difference is detected. Engineering overkill? Perhaps—unless you're the kind of perfectionist who insists on the state of the art.

Tape-drive mechanisms are no less important in achieving top performance than are heads, for *any* irregularities in a tape's motion as it passes over the heads will result in wow-and-flutter that degrades sonic clarity and the stereo image. Since the tape in a cassette is (unfortunately) in contact with the cassette shell's rollers

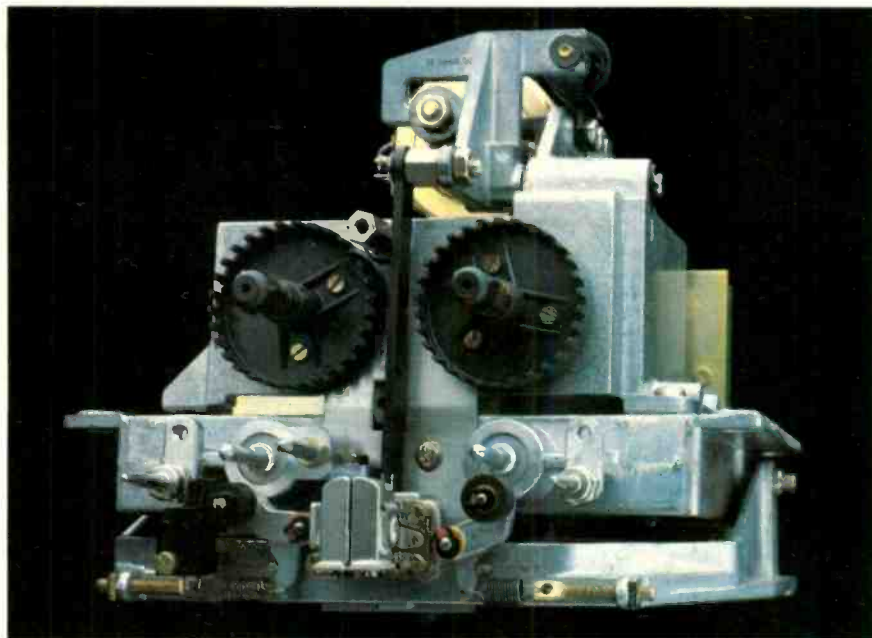
and guide posts, the best that can be done is to isolate the tape as it passes over the heads by using a dual-capstan drive—one capstan before the heads and one after. As with record players, there are two approaches to how the capstans should be turned, belt-drive and direct-drive. Tandberg favors the former, Revox and Nakamichi the latter, and Teac uses direct-drive for the main capstan motor and belt-drive for the second capstan.

Direct-drive cassette hub motors—slaved by servocontrols to “know” how hard each hub is pulling—are featured on several of these state-of-the-art decks, as are motor-driven cam mechanisms instead of the con-

ventional but more physically jarring solenoids for operating the head gate and brakes. To maintain long-term alignment of all parts, heavy chassis construction (especially apparent on the Teac, Revox, and Tandberg decks) is the costly—but effective—rule, as it has been in professional open-reel recorders for decades.

Interestingly, while all of these superb cassette decks offer Dolby-C noise reduction, only the Teac offers the more powerful dbx system. Conservative design seems the elite manufacturers' rule here: if there is *any* chance that a noise-reduction system can be heard to operate (by “breathing” or “pumping” under rapidly changing dynamic conditions), they seem to feel it is better to stay with the less obtrusive but less powerful system, Dolby-C. But dbx appears to be gaining adherents generally, and perhaps it will be included in more of the next generation of cost-no-object cassette decks.

With the exception of the Revox B710 Mk II—whose designer, Willi Studer, is adamantly opposed to nonprofessional tampering with the bias he thinks best for the tape he recommends—all the top-quality cassette decks provide not only user-adjustable bias but the test signals needed to adjust it correctly. Interestingly, however, despite their extensive use of microprocessors to control other functions, the top Nakamichi, Tandberg, and Teac decks depend on manual adjustment for this critical parameter. Teac even provides separate adjustments for bias and recording equalization, which is the common practice on professional open-reel recorders. ▶



Part of the allure of high-end tape equipment lies in its top-quality construction and attention to detail. The tape transport (upper photo) of the Revox B710 Mk II cassette deck has a die-cast aluminum frame to keep the four-motor mechanism perfectly aligned. Both capstans are controlled by a microcomputer to maintain the optimum tape tension across the heads.

OPEN-REEL

Open-reel recorders, long the workhorses of the professional recording and broadcasting studio, continue to appeal to audiophiles who are interested in live recording—and, of course, to those who have built up a collection of prized, and now relatively rarely produced, prerecorded open-reel tapes. No match for the cassette in convenience, the open-reel format's wider tape and higher speeds offer potentially greater high-frequency capability, lower noise, and less wow-and-flutter, as well as longer uninterrupted playing times and—especially important to the live-music recordist—the ability to edit easily.

To most of today's audiophiles, tape editing is almost an unknown

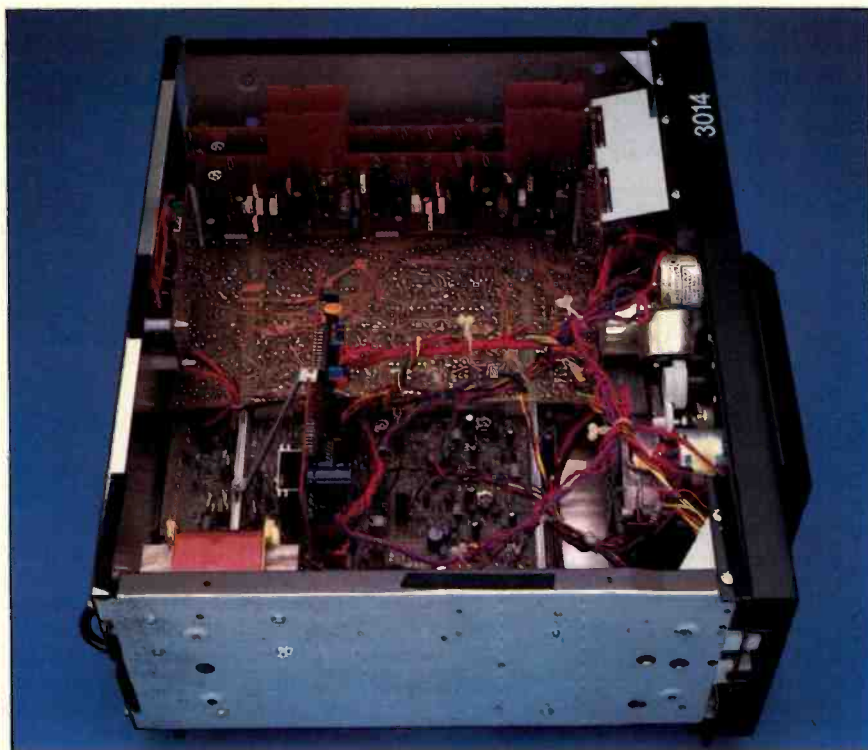
art, for it is virtually impossible to edit cassettes. The best one can do with a slow-speed, sealed-case medium is to dub together sections long enough to have reasonably long silent stretches that permit the use of a pause control. But, since it involves dubbing, such "editing" always degrades the signal quality somewhat.

True editing involves splicing together portions of different "takes" of the same music to create a composite version that is better than any full-length runthrough the artist(s) can produce. Overdone, of course, such patchwork destroys musical continuity. Judiciously employed (often at the insistence of the artist no less than of the recording engineer), it is an entirely legitimate technique given the nature of the recorded-music listen-

ing experience. In a live performance, a false note or a slurred passage is quickly passed by, for one's interest is concentrated on the present and anticipated sounds. When a performance is recorded to be heard many times, however, the listener quickly comes to anticipate the wrong note he *knows* is coming up, and this interferes with his enjoyment of the music. Though not itself audible, a well-made splice, like the music it permits us to hear, is a thing of beauty, and for the home recordist it is possible only in the open-reel format.

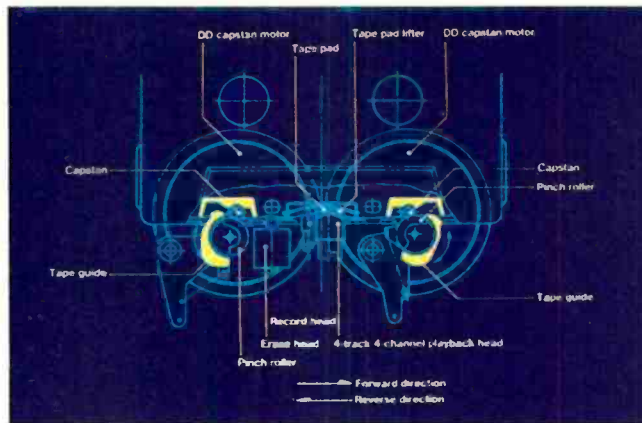
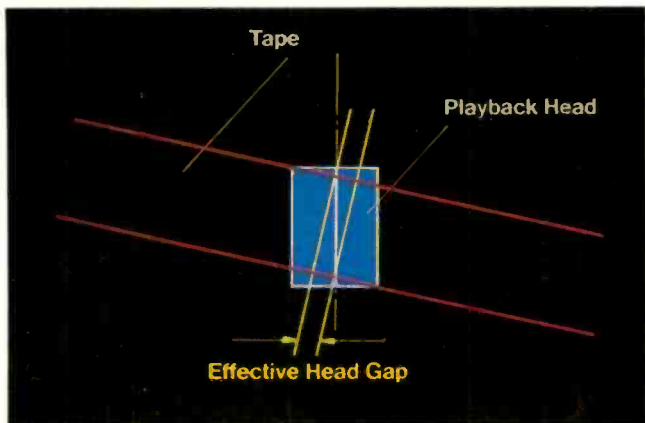
Since cost is no consideration in a state-of-the-art report, perhaps I should head the list of top open-reel decks with the \$14,400 Mark Levinson ML-5. To call the ML-5 a "home" machine is to stretch a point, since it is actually a Studer A80RC professional mastering recorder with much of the electronics replaced by those of Levinson's own design. Frankly, when I tested a Studer A80RC a few years ago, I found no fault with its electronics, but audiophiles familiar with Levinson's approach to amplifier performance will undoubtedly appreciate his touch here. As for the transport—which takes two men and a small boy to lift—while I have used a fair number of professional decks in my time, none have even come close to it in performance and "feel." For those who appreciate such things, the tape handling has an almost sensual smoothness, the editing facilities are superb, and the Studer heads have set the industry's open-reel standard for decades.

For the audiophile in search of top open-reel performance with full editing features at a somewhat less exalted price, there are several recorders in Teac's Tascam professional line to consider, as well as the Revox PR99 and B77, the Tandberg TD20A-SE,



The difference between a high-end cassette deck such as the Tandberg TCD-3014 (right) and a mid-priced deck with ostensibly the same features is obvious from a look at the Tandberg machine's innards (above). This mass of mechanisms and circuitry includes three discrete heads, a four-motor dual-capstan drive, an eight-bit microcomputer with 32k EPROM memory, discrete-component audio circuitry (except for the Dolby chips), a fully isolated power supply, and built-in oscillators for adjustment of the record current, bias, and azimuth.





Nakamichi's forte is skillful solutions to the problem of poor azimuth alignment (diagram at left), which causes high-frequency rolloffs, and innovative tape transports. The auto-re-

verse, dual-capstan drive in its Dragon deck (right) uses a 0.2 per cent capstan-speed differential to maintain tape tension while the pressure pad is lifted away from the tape.

and the Otari series of professional and semiprofessional decks. The Tandberg permits the user to select either the standard playback equalization or the company's own alternative, which reduces tape hiss at the cost of slightly less high-frequency headroom. All these decks will handle 10½-inch reels, have at least three heads and three motors (the Tandberg has four, one just to lift the tape gate), and, except for the Revox models, offer user-adjustable bias. Being able to adjust bias (and even equalization and sensitivity) is particularly important in open-reel recording because tape characteristics vary by brand and series even more than they do with cassettes. The use of some external test equipment is almost presumed, however, and the rule among professional and semiprofessional recorder makers seems to be that the buyer will wish to choose his own external noise-reduction system.

Among the top-quality open-reel decks of a more domesticated nature, without studio-type editing facilities and user-adjustable bias, are the recently introduced Akai GX-747 and

the Teac X-1000. Both include dbx Type I (professional) noise reduction, which enables analog decks to match the signal-to-noise ratios of digital recordings. This is a definite plus for the home user, though it is not compatible with the dbx Type II system found on many home cassette decks and car stereos. Both decks also provide settings for the higher bias and altered equalization required by the "EE" (Extra Efficiency) open-reel tape formulations, which are designed to provide the same performance at a speed of 3¾ inches per second that can be achieved at 7½ ips. It remains to be seen whether this latter innovation will significantly revive interest in home open-reel (I'm not optimistic). Apart from professional and semiprofessional applications that require its editing potential, home open-reel is not yet dead, but I fear its symptoms indicate a poor prognosis for its future.

VIDEO FORMATS

By all objective measurements, the improvement in fidelity brought

about by using digital recording techniques is enormous. Most PCM-type digital recordings have a potential dynamic range of approximately 84 to 96 dB (depending on the system used) at all audible frequencies, with no wow-and-flutter and with far less measurable distortion than can be achieved by any conventional (analog) recording methods.

To date, all home digital-audio recording systems have used video cassettes (Beta or VHS format) to store the large amounts of data that digitizing an audio signal produces. Conversion of the audio signal into a digital signal that is then turned into a video signal is performed by what are generally called PCM adaptors. These are available either as accessory processors or built into a video-cassette recorder. When I reviewed a machine of the latter all-in-one type, the Technics SV-P100 (\$3,000), for STEREO REVIEW two years ago, it gave me the opportunity to make the cleanest live recordings I had ever done up to that time. Hitachi has since introduced a similar digital recorder, the PCM-V300E (\$3,500). Both machines use the EIAJ fourteen-bit consumer digital-audio standard, which yields a signal-to-noise ratio (S/N) of approximately 85 to 86 dB.

The Sony PCM-F1 and PCM-701ES and the recently introduced



Digital tape recording has become possible at home with PCM (pulse-code-modulation) machines such as this Technics SV-P100. Most home PCM recordings are made with a digital-audio adaptor and a separate video-cassette recorder. The SV-P100 and Hitachi's PCM-V300E are the only digital-audio recorders with built-in tape mechanisms.

Nakamichi DMP-100 are external digital processors that are usable with any VCR. All provide the option of using either the fourteen-bit standard or a nonstandard but sonically superior sixteen-bit format, which produces S/N's of better than 90 dB. Since they do not include a VCR mechanism, the cost of these processors (from \$1,200 to around \$2,000) is much less than that of the Technics or Hitachi digital recorders.

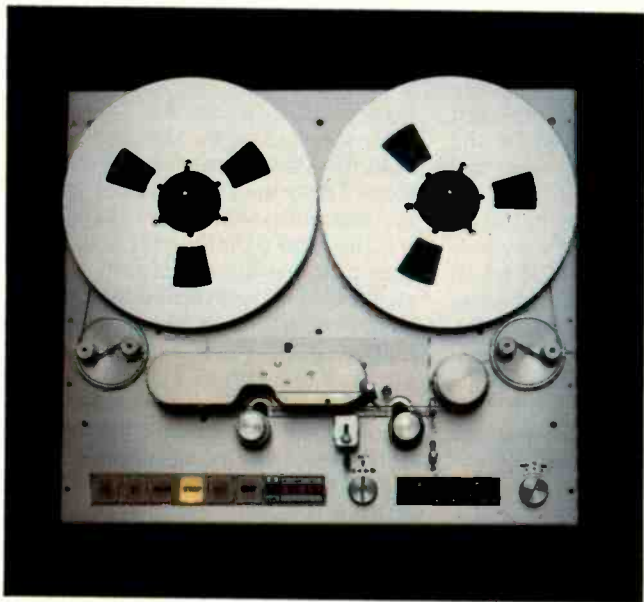
Moreover, development of large-scale integrated circuits (LSI's) is rapidly bringing the cost of home digital processors down. Sansui's PC-X1 Tricode processor, which includes sophisticated circuitry that permits use of a VCR's slowest speed (Extended Play), lists at \$1,000, and Technics recently brought out its SV-100 and SV-110 adaptors at \$900 and \$800, respectively. Falling prices should encourage more serious recordists to

take the digital plunge, and two companies—Mobile Fidelity Sound Lab and Direct-to-Tape (14 Station Avenue, Haddon Heights, N.J. 08035)—are already producing prerecorded digital-audio video cassettes (the former in the VHS format, the latter in both Beta and VHS).

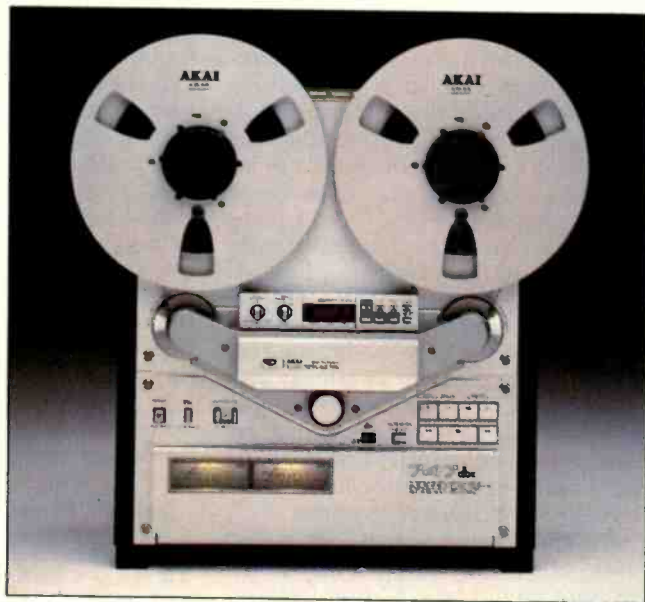
The advance of consumer acceptance of digital audio on video cassettes may have been slowed, however, by the recent introduction of high-fidelity *analog* audio recording on video cassettes. A little over a year ago the various Beta VCR manufacturers unveiled the Beta Hi-Fi system, which uses frequency-modulation techniques to record near digital-quality audio tracks simultaneously with a video recording. Julian Hirsch was very impressed last year with the Sony SL 5200 Beta Hi-Fi VCR, which he reviewed as an audio recorder. The VHS manufacturers have since

announced their own, technically different, system for high-fidelity audio recording on their VCR's, and the machines should be widely available by the middle of this year.

The question for anyone interested in state-of-the-art audio recording has now become whether to buy a digital processor/recorder or a high-fidelity analog VCR instead. If your interest is in acquiring (or making) wonderful-sounding video recordings, the latter is the logical choice. If your interest is in live music recording, and perhaps in exchanging digital-audio recordings with others, the former is the more sensible course. Of course, you *could* get a high-fidelity VCR and a digital PCM adaptor and have the best of both worlds. For my part, digital audio is the future in which I wish to participate, but it will still be a long time before I consider my analog equipment and tapes passé. □



For the ultimate in a home analog tape recorder, the open-reel Mark Levinson ML-5 (above) combines the tape transport and heads of a Studer A80RC professional studio recorder with Levinson's own electronics. It operates at 15 and 30 ips (cassette decks operate at 1 7/8 ips), weighs 117 pounds, and costs \$14,400.



In a more affordable price range are the \$1,400 Akai GX-747 dbx (above right) and Teac X-1000R (right). Both are stereo four-track, auto-reverse, open-reel decks with dbx Type I (professional) noise reduction, EE tape capability, and speeds of 7 1/2 or 3 3/4 ips.



THE BASICS OF NOISE REDUCTION

How the Dolby, dbx, and DNR systems cope with tape noise

BY DAVID RANADA

THERE'S no way around it. Analog tape is a noisy recording medium. It *has* to be to work at all. Even when recording something as simple as a sine wave, those billions of submicroscopic magnetic particles painted on that plastic ribbon are only retaining a statistical impression of the recording head's magnetic field. It is the *average* behavior of those particles that determines what the playback signal will be. And, in electronics, every signal that is the result of an averaging process is noisy.

The act of recording itself adds noise to a tape. Put a brand-new, never-recorded tape in a deck and play it for 15 to 30 seconds. Then, without rewinding, start recording but with no input signal, no noise-reduction system, and the record-level controls turned all the way down. After another 15 to 30 seconds, stop, rewind the tape, and play it back from the beginning at a high level. You'll find that the background noise will suddenly increase at the point where you started recording. This added "bias noise" is the quietest a recorded tape will ever get without some form of signal processing: noise reduction.

There are several important noise-reduction systems in use today, each attacking the same problem from a different angle. Their effectiveness varies, depending on their operating principles, the signal to be recorded, and how sensitive the listener is to tape noise in all of its incarnations. Simple tests exist for determining the weak points of each of the major noise-reduction systems (they all have at least one). The tests are best understood, however, if you have a little background on how noise reduction in general works.

THE PRIMARY EMPHASIS

The most basic system for reducing noise isn't really a system at all but a

set of standards specifying how to modify a signal for recording (pre-emphasis) and how to unmodify it during playback (de-emphasis). During recording on tape or disc, the high frequencies are boosted (emphasized), and during playback they are cut (de-emphasized) by an equivalent amount (Figure 1). This mirror-image processing not only restores the desired flat frequency response but also reduces the noise contributed by the recording medium, because in playback *the high-frequency noise is reduced by the same amount as the high-frequency signals that are being de-emphasized*. (Pre- and de-emphasis also go by the collective name of equalization.)

Use of pre-emphasis and de-emphasis in tape recording is most obvious in the familiar 70- and 120-microsecond markings on cassettes and tape decks. These numbers specify the particular de-emphasis curve to be applied when playing back the tape. Because of the variety of tape and recorder characteristics, the exact pre-emphasis curve used in recording varies, yet the resulting tapes must play back correctly with either a 70- or 120-microsecond de-emphasis.

You never get something for nothing in engineering matters, and the use of pre-emphasis and de-emphasis does not come without its penalties. Chief among these is a reduced ability to record and play back high levels of high frequencies. If the medium can retain only a certain level of high frequencies before it overloads, boosting high frequencies by pre-emphasis will reduce the amount of treble signal that can be recorded safely. Designers are thus caught between high noise levels with low or no pre-emphasis and the possibility of higher distortion when pre-emphasis is used. It's like trying to fit a square peg (the wide-dynamic-range signal) into a too-small round hole (the dynamic range of analog tape as limited by its

inherent overload and background-noise levels).

You can view all encode-decode tape noise-reduction systems—such as Dolby-B, Dolby-C, and dbx—as attempts to get around this dilemma, to reduce the perceived tape noise even further while avoiding the bad effects of further boosts in signal levels. These systems can be thought of as variable or adaptive pre-emphasis and de-emphasis systems. They work by raising the level of the recorded signal above the tape noise during encoding (but without creating excessive levels) and then lowering the signal by exactly the same amount during decoding. The popular DNR system, meant for playback-only operation, can also be considered a self-adjusting variable de-emphasis system.

THE DOLBY SYSTEMS

The basic action of Dolby-B and the more sophisticated and effective Dolby-C noise-reduction systems can be described simply (see Figure 2). In recording, the amount of high-frequency boost of the signal fed to the tape increases as the overall input level goes down. (With Dolby-C, both the mid and high frequencies are boosted.) On playback, the amount of high-frequency cut applied to the signal from the tape increases as the overall signal level goes down. The result is a flat overall frequency response with the audible tape noise lowered—by about 10 dB with Dolby-B and about 20 dB with Dolby-C. What differentiates the Dolby systems from fixed pre- and de-emphasis networks is the way the necessary boosts and cuts are automatically determined and exactly where in the frequency range they are applied.

Dolby circuits operate by comparing the overall signal level, in either the encode or the decode cycle, with a standardized reference level, the "Dolby level" (see "Technical Talk"

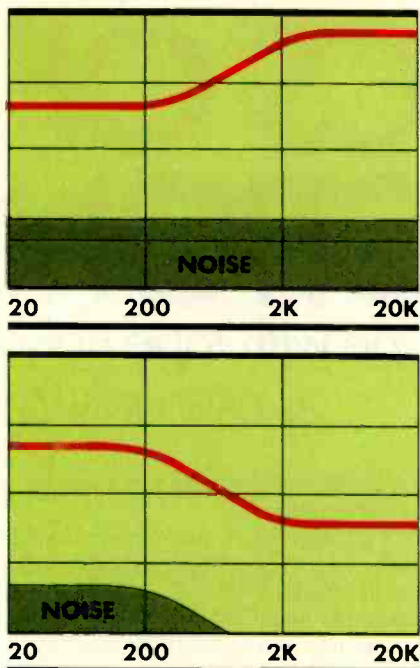


Figure 1. Pre-emphasis (top) usually boosts the high frequencies, raising them further above the recording medium's noise level. De-emphasis (bottom) restores flat frequency response by a complementary high-frequency cut. It also lowers the noise level.

on page 22). The result of the comparison is to move a "shelving" filter up or down in frequency (Figure 3). A shelving filter is one with flat frequency response in two bands that are separated by a band with either an upward- or a downward-sloping response. One of the main differences between Dolby-B and Dolby-C is in the effectiveness of their shelving filters.

THE DBX SYSTEM

The fundamentals of the dbx noise-reduction system can also be explained easily (see Figure 4). As the overall input level increases or decreases, by 10 dB, say, the level actually reaching the tape changes in the same direction but only by half as much, in this case by 5 dB. On playback, if the overall level from the tape varies by 5 dB, the decoded dbx output changes by 10 dB. Again, the result is a flat frequency response with a considerable reduction in tape noise, up to about 30 dB depending on the original signal and the noise levels. Note that the action of dbx noise reduction extends over the whole audible band, unlike both a simple pre- and de-emphasis system and the Dolby systems. The shelf effect of the curves in Figure 4 comes from the dbx system's incorporation of fixed

pre- and de-emphasis. The extra boosts are prevented from overloading the tape by the action of the 2-to-1 compression system.

The Dolby systems refer their processing to a standardized level. The dbx system, however, doesn't need standardized levels because it refers its action to its 2-to-1 compression ratio. It doesn't matter if the deck plays tapes back 5 dB lower than the level at which they were recorded; the dbx-decoded output will, of course, be 10 dB lower in overall level, but the dynamics (the variations between loud and soft) will still be in exact proportion.

THE DNR SYSTEM

The Dynamic Noise Reduction system, or DNR (a trademark abbreviation), works during playback only. It is thus usable for reducing noise from broadcasts and normal phonograph discs as well as tape recordings. DNR applies a high-frequency rolloff (6 dB per octave) that starts at a frequency between 1,000 and 30,000 Hz, the precise frequency being determined by the loudness of the input signal (see Figure 5). As the level and the high-frequency content of the DNR input signal increases, the cutoff frequency (where the rolloff starts) moves upward.

The effectiveness of the DNR system depends to a greater extent than do the Dolby or dbx systems on the masking properties of the human hearing system. Loud signals can mask lower-level noise occurring at other frequencies, making it inaudible. But as the signal level falls, our sensitivity to noise increases, which is why DNR uses a filter that becomes more "drastic" as the signal level falls. The intent is to filter out as much noise as possible without changing the high-frequency content of the music.

TESTING THE SYSTEMS

Unlike a "pure" pre- and de-emphasis system, all adaptive noise-reduction systems can be "fooled," either because of "loopholes" inherent in their design or because of the ways their circuits interact with the limitations of the tape medium. There are a few simple tests of tape noise-reduction systems that you can perform at home or in a store (get permission first!). They will enable you to evaluate not only how well a particular system reduces noise but whether it has unwanted audible side effects with "difficult" signals in three common

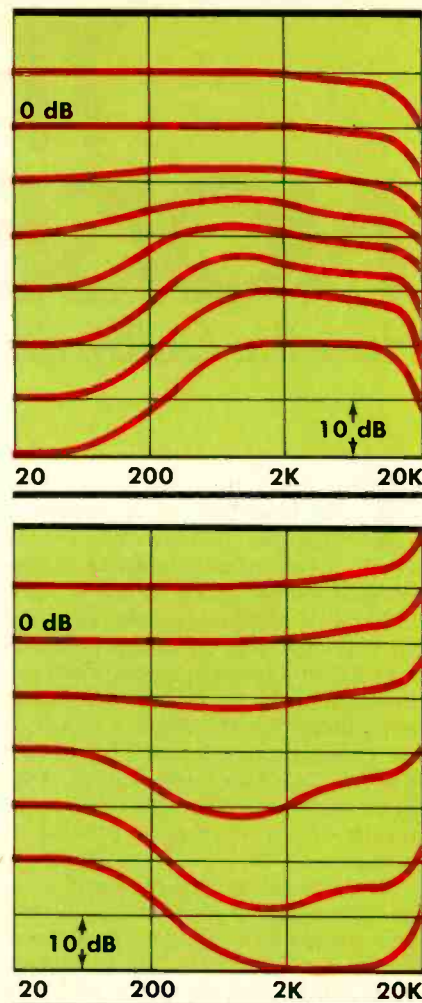


Figure 2. In the record mode (top), both Dolby-C (shown) and Dolby-B boost the high frequencies more as the input signal level decreases. In playback (bottom), the high frequencies are correspondingly cut. The rolloff at the very top end in the record mode and the complementary boost in playback (called "spectral skewing" by Dolby) are meant to prevent tape overload.

problem areas: noise modulation, overload, and what I call "dynamics tracking." While the tests are meant for encode-decode systems, they are also valid for single-ended systems such as DNR.

Basic noise-reduction performance is easily judged, but it is important to test both with and without a signal. There may be a difference in the apparent noise reduction; if there is, you'll have to decide if it's likely to bother you (during the blank sections between selections on a tape, for example).

With a three-head deck, just switch the noise-reduction system in and out while recording some music, and at the same time listen on the monitor circuit to the just-recorded signal (headphones will make the noise

more prominent). Listen for the lowering of the noise level (at high and low frequencies) when you switch the system in. The same test is possible, though not as easy, with a two-head deck. Instead of listening while recording, keep track—using the index counter or a stopwatch—of when you switch the noise-reduction system in and out. Make the corresponding switches during subsequent playback, and, again, listen for the noise level to drop when the system is on. Perform the same test with no input signal by turning the record-level control(s) all the way down.

Noise modulation, also sometimes called "breathing" or "pumping," is an audible change in the background-noise level caused by the program signal itself; the noise level is changed, or modulated, by the recorded signal. The best signal to use for noise-modulation testing is one that has limited high-frequency content. Flute, clarinet, French horn, vibraphone, and solo piano work well; you might also try a solo bass-drum passage. While playing back such a signal, preferably taped from a digitally mastered Compact Disc or another low-noise source, listen for changes in the noise level as each note passes. Ideally, depending on the noise-reduction system, you should hear either no change in the background-noise level or no background noise at all.

Try to distinguish noise modulation from the similar-sounding (verbally and sonically) modulation noise. The latter, like bias noise, is a property of all analog-tape systems and can best be described as a "roughening" of a signal that gets worse as its level increases. In severe cases, it may be heard as a distinct hiss riding up and down along with the music and may thus be confused with noise modulation. You can distinguish modulation noise from noise modulation by noting what happens when you switch out the noise-reduction system. Noise-modulation problems will disappear, of course, and the background-noise level will naturally rise, but modulation noise will become even more apparent. Noise-reduction systems vary in their abilities to reduce perceived modulation noise, but none, as far as I know, can eliminate it completely.

Overload comes from attempting to record too high a signal on a tape, either because an encode-decode noise-reduction system has excessively boosted an otherwise easily recordable signal or, more likely, because the system, while not actually boosting the signal, has let an excessive

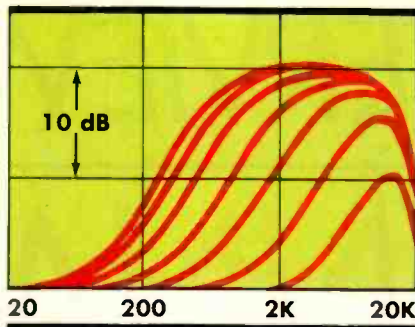


Figure 3. The Dolby-C shelving filter slides from right to left as the input signal decreases in level during recording.

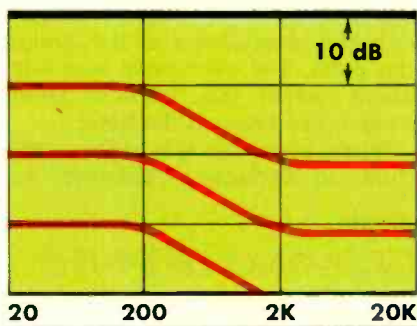
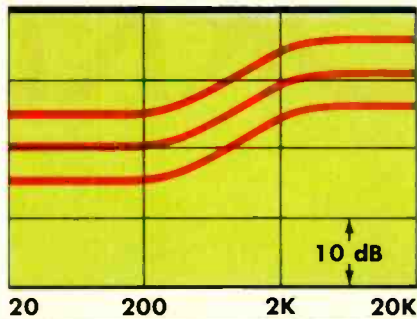


Figure 4. The top graph shows the compression and pre-emphasis action of a dbx encoding circuit. The three traces were originally 10 dB apart in level but have been compressed to only 5 dB apart. In dbx decoding (bottom), the original dynamic range is restored by expansion while de-emphasis restores a flat overall frequency response. (These graphs are conceptual simplifications of the behavior of the dbx system.)

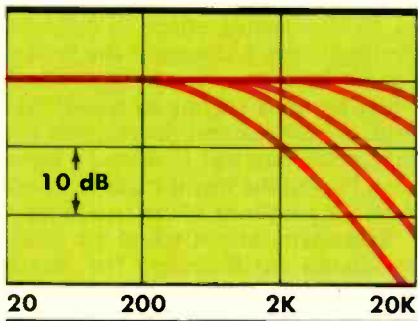


Figure 5. The turnover frequency of DNR's high-frequency filter moves lower as the level and high-frequency content of the input signal falls.

level get to the tape heads. Overload varies in its manifestations from distortion at mid frequencies to a dulling of the extreme high frequencies. It can be produced by trying to record signals with substantial mid- and high-frequency content (close-miked brass or strings, cymbals, certain synthesizer tones). You can tell if the noise-reduction system is causing (or not preventing) tape overload by reducing the recording level. If the distortion vanishes or the high frequencies return, you've been overloading the tape. It's important to realize, however, that reducing the recording level by x dB is equivalent to throwing away x dB of signal-to-noise ratio. Determine if the increased noise at the lower level is audible and, if so, whether it is tolerable.

Problems with dynamics tracking, sometimes called "mistracking" and also sometimes referred to as pumping or breathing, are generally heard not as changes in background-noise level but as unnatural changes in the program's dynamics. The result sounds as if something were "pumping" the level of the music up and down. The ideal signal for testing dynamics tracking would have sustained chords in the midrange punctuated by high-level peaks containing substantial high-frequency energy. Misbehavior would be indicated by unusual level changes in the sustained chords, possibly accompanied by changes in the noise level.

A good test signal, one available in nearly every record collection, is a scratched or dusty disc. Loud pops and ticks from these defects are precisely the high-level peaks needed to stimulate mistracking. Listen closely to what happens to the music (and the background noise) right after a tick or pop goes by; the precise effects vary with the type of noise-reduction system. Bad mistracking with the Dolby systems may indicate a mismatch in Dolby-level calibration. A severe tracking problem with the dbx system may indicate a tape and/or a deck that has inferior frequency response. DNR, being a single-ended system, is not affected by tracking problems per se.

While these are uncomplicated tests, careful listening can reveal many subtle differences between noise-reduction systems. No noise-reduction system is, or can be, perfect. Be warned, however, that self-training and experience can make you extremely sensitive to all manifestations of tape noise and noise-reducer misbehavior. A little knowledge can be a dangerous thing. □

AN INTERVIEW WITH

SUSANNAH McCORKLE

BY CHRIS ALBERTSON

SINGER Susannah McCorkle's most recent album, "The People That You Never Get to Love" (Inner City IC 1151), is a hit with the critics—STEREO REVIEW's editors and reviewers voted it a 1983 Record of the Year Award last month—and the record-buying public seems to concur. No, it is not making chart history, but more and more Americans are discovering the very special art of Susannah McCorkle. Though "People" consists entirely of contemporary material—and McCorkle is anxious to do more new songs—hers is an art rooted in the American past, especially in the songwriting and singing styles of the Thirties and Forties. McCorkle is not just a fine singer—she is a jazz singer in an age that has practically forgotten what that term means.

"The People That You Never Get to Love" may be McCorkle's best album yet, but it was preceded by three memorable albums now available on the same label. Her recording career was launched overseas in the early Seventies with her participation in an English album devoted to the music of Cole Porter. Producer Chris Ellis spotted her talent and proposed that she do a solo album. The result was "The Music of Harry Warren" (IC 1141), followed closely by "The Songs of Johnny Mercer" (IC 1101). Although the latter was recorded in 1976, it was unknown in this country until 1981, when it was nominated for a Grammy award. That year also saw the release of a third set, "Over the Rainbow" (IC 1131), produced by

McCorkle herself and devoted to the songs of Yip Harburg. By then Susannah McCorkle had caught the attention and imagination of the American press, and everybody was wondering where this talented young woman had been all the time.

When Susannah was still a small child, in Berkeley, California, her

—
*GROWING UP IN THE
UNITED STATES, I
HAD NEVER HEARD
JAZZ, AND I REALLY
FELT CHEATED.*
—

mother took her to see a production of *South Pacific*. She had already been to a few movies, but this was the first time she saw real people affect an audience, and that experience proved to have a lasting effect. "I kept expecting to see a closeup," she recalls, "so I turned to my mother and asked, 'Why are they staying so small?' She said, 'These are real people, this is a play, those are real humans.' I loved that, I loved the way the actors played with the emotions of their audience."

Susannah did not spend her entire childhood in Berkeley; the family moved around as her father, an anthropologist, took academic positions in various parts of the country. In Harrisburg, Pennsylvania, Susannah, now a teenager listening to Top Forty tunes, appeared in summer-stock

productions of such musicals as *Li'l Abner* and *Bye, Bye Birdie*. "I was much too young, but I had a low voice and I was the best compromise," she says to explain how she came to play a leading role in the latter production. "But it bothered me to have to do the same thing night after night, and this was before I knew anything about jazz, so a musical career was not on my agenda."

Returning to her original home, Susannah enrolled in the University of California at Berkeley. Continuing her interest in music, she joined Treble Clef, a girls' chorus, but soon it all seemed rather meaningless. She was caught in the center of the Free Speech Movement, and her political consciousness was aroused. "Suddenly Broadway musicals seemed very establishment and phony to me," she recalls. "Even Peggy Lee and Jo Stafford, though their music was of very good quality, seemed very creamy white and out of character with what I was going through."

In the late Sixties, she felt compelled to leave this country in pursuit of a literary career, so she dropped out of college. "I fled America because I thought it was such a sick place," she says candidly. "I wanted to live a healthy life, and I felt I would crack up if I stayed on in America. I didn't seem to be strong or committed enough to be out-and-out political. I was too much of a loner, and I wanted to write. Going to Europe to make a life there, to become a writer, seemed the sensible thing for me to do at that time."



Ironically, but not so surprisingly, it was in Europe that Susannah McCorkle discovered that very American music called jazz. She was living in Paris when a college friend, who wanted to become a singer, played for her Billie Holiday's 1939 Commodore recording of *I Got a Right to Sing the Blues*. That was a turning point. "It was such a different approach to singing," she says. "I had never heard anything like that before. That one record completely revised my thinking and made me want to become a professional singer. Broadway music was manufactured emotion, but this was real. Billie Holiday was singing, but it was so forthright and direct that she could have been talking. I needed to hear that record about twenty times, and I had never felt that way before—not about Elvis Presley, the Beatles, anybody. Every time I heard that record, I heard more, and that, to me, is the fascination of good jazz. You never get tired of listening to the records, because there is so much heart and craft in them. There is more to be discovered each time, because something really genuine and fine was put there in the first place."

Hearing that thirty-year-old Billie Holiday record not only renewed Susannah's interest in music, it made her do some soul searching. "I realized that I'd written off my own country, and even though the Sixties were a terrible time, which I believe we needed to go through, something wonderful was also going on in America, and I had missed it. Growing up in the United States, I had never heard jazz, and I really felt cheated. I began to think that if this music could be made in America, there must still be people there who were creating it and others who were liking it."

Now suddenly "obsessed by American culture," Susannah, who supported herself by working as an interpreter, started frequenting Paris movie houses, discovering for the first time such films as *Stage Door*, *Double Indemnity*, and all the classic Busby Berkeley musicals. "They were wonderful, and the songs were so great," she recalls. "I heard people in the theaters laughing at the witty rhymes in some of the Fred Astaire and Ginger Rogers movies, and the songs were so amazing and clever

that I started to learn them. Now I had made up my mind to become a singer like Billie Holiday—not to copy her, but to sing a lot of the good songs from the Thirties.”

It was in Rome that Susannah first decided to launch herself as a professional singer. “I went around to some Roman night clubs to audition,” she recalls, smiling as her mind focuses on a page from her past. “I just can’t believe that I did these things, for I was really just a kind of gawky college girl. I spoke very good Italian—with subjunctives and everything—and the night-club owners were very nice as they patted me kindly on the head and suggested I get a good job as an interpreter, or an office job, because I was a very well-brought-up young lady. Only later did I realize that Roman night-club singers are essentially singing prostitutes, so they must really have thought I was funny.”

Momentarily discouraged, Susannah found a job as a translator and supplemented her income by giving private English lessons. Soon things began to look up, at least in one area. While her eagerness to sing professionally had so far only netted her disappointments, she succeeded in selling two of her short stories to *Mademoiselle* magazine. Then one of her students introduced Susannah to an Italian jazz musician, and that put her back on the singing track. “He did jazz broadcasts for the Italian radio, played soprano sax and clarinet, sang like Jack Teagarden, and loved jazz,” she said. “He also had a lot of records, which he lent me freely. I sang with his band for a while, but it was really too amateurish; they didn’t want to rehearse, they didn’t want to play anything new, and they refused to play in keys other than the few they were used to. So that wasn’t very satisfying, but it gave me a taste of singing with a jazz group and led to the point where I decided that I simply had to try doing this seriously. If I failed, okay, but I didn’t want to wake up at forty and feel bitterness because I hadn’t followed my instincts.”

By this time Susannah had managed to save up some money, so she packed her things once more and purchased a charter flight ticket to London. “It was a crazy thing to do, at least for me,” she admits, “because I am quite a shy person—not the great

adventurer. But I just burned to sing with real musicians, with kindred spirits.”

In Italy, Susannah had paid regular visits to the U.S. Information Agency library looking for books on jazz. “I call it the American propaganda library,” she says, “because it was full of Eisenhower biographies and things like that, but it offered very little information on jazz.” She did, however, find some critical essays on jazz by Philip Larkin, an English poet to whom she had earlier sent a fan letter. “I was amazed to find that jazz was at least as important to him as literature, so I wrote him another letter, told him that I was coming to Lon-

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don to sing Thirties swing music, and asked him if he knew of anyone I could listen to this music with. He wrote back a very nice letter suggesting that I get in touch with trumpeter John Chilton, who also wrote that Billie Holiday book [*Billie’s Blues*, Stein & Day, New York, 1975].”

Shortly after her arrival in London in 1972, Susannah dropped in at the pub where Chilton had his band and found, much to her astonishment, that he was expecting her. From that evening on, things happened fast. Chilton invited her to sing, and her delivery so pleased saxophonist Bruce Turner—who was with Chilton’s band that evening—that he asked her to sing with *his* band every week. “It was astonishing,” she says, “because, right away, I was working, singing with the bands—it was as if it was all meant to be, because it went click, click, click, and nothing had ever fallen into place that way before. In London the jobs and encouragement came my way from the very beginning.”

Susannah was now singing in London pubs for two or three pounds a night. It was not a lot of money, but

she was finally doing what she wanted most of all to do. “I think I must have been pretty awkward on the bandstand at that time, but I was trying to give something to people, and audiences responded to me. They didn’t stomp and cheer, but they were quiet, and they listened in a way that pub audiences usually didn’t, because most people really went there to have a good time, to live it up.” Not all Susannah’s jobs were in pubs, and her days were often spent auditioning for any kind of singing job. “After a while, I stopped doing Billie’s songs,” she explains, “because I knew it was important for me to be myself, to be *influenced* by how wonderful Billie is but not to sound quite so much like her. So I purposely avoided her repertoire and started concentrating on other songs.” That was when a now-defunct department store, Biba, hired her to sing in its restaurant as part of a promotion for Norman Mailer’s book on Marilyn Monroe.

“‘You have to *be* Marilyn Monroe,’ they said, ‘and you must do only her songs.’ I decided to do it, and I discovered that the songs were very good. I hadn’t realized that before. Jobs like that were usually a humiliating experience. Still, they represented a real apprenticeship, an important part of my development. I felt very depressed getting undressed after the Marilyn Monroe job. As I peeled Marilyn off me—the wig, the false eyelashes, the rhinestones, the white-on-white make-up—I realized that she had done this all the time, that she was unrecognizable when she walked the streets. It was eerie.”

Susannah McCorkle doesn’t need to imitate anyone any more, or to look for jobs or encouragement overseas. And just as America now is ready for Susannah McCorkle, she sees positive changes in the country she once fled. “Something is happening in this country,” she observes. “I keep seeing more signs; there’s just something in the air. Even back in London, I was thrilled when they came out with the Diana Ross movie about Billie Holiday [*Lady Sings the Blues*] because I was already singing all those songs, and people had been wondering what on earth I was doing. Suddenly, it was all considered super hip, because they had seen that movie. And look what’s happening



now—that Linda Ronstadt album ["What's New"] is opening a lot of young ears to those sounds. I mean, when I was in college, those sounds were laughed at, that was considered establishment backyard-barbecue Eisenhower stuff, button-down crewcut America.

"I really think Americans have a much greater interest in their own heritage now than they did in the Sixties," she observes. "At that time, it was hip to say that everything was bad, but now we have a *real* floundering time, which is very good—people

look back and say, 'Wait, this was good.' And because people don't have much money, they look for things that wear well, records that wear well, songs that wear well—in very much the same way that one goes back to natural fibers. There is just more perspective than there used to be. Europeans used to be the only ones who had any perspective on American culture, but now we do too."

Susannah's bookings have accelerated to a healthy pace, but she is not content to rest on her laurels. She feels obligated to continue fueling an inter-

est in America's musical heritage, and the young lady with the big suitcase and meager wallet has clearly shed some of her shyness and become a businesswoman of sorts. "I had to get into the business side of things," she explains, "because record companies don't always look out for your interests. I never knew any so-called 'good old days'—it's always been tough out there for me. I think that's one reason I've been able to survive and have a viable career, because I've had to learn to do all the practical things."

Being practical includes producing her own albums and broadening her scope beyond Bessie Smith and Billie Holiday, the two singers who most influenced her in the beginning. "It took me a long time to accept my own white, bourgeois college-girl roots," she admits, "but I have no identity problems now." The Monroe impersonation only lasted one day, but it gave Susannah an idea for an act that she is having much success with these days. She calls it "The Hollywood Blondes—Great Songs Made Famous by Legendary Ladies of the Silver Screen." Susannah has also appeared in symphony concerts featuring the music of Alec Wilder, and she plans to commission arrangements for a pop program of hand-picked Thirties and Forties songs called "The Philharmonic Goes to the Movies with Susannah McCorkle." She would also like to commission new songs from some of today's younger songwriters.

Does she have any advice for young, would-be singers? "Singers come to me and ask, 'What shall I do? I want to be a singer.' Chances are that they never will become singers, because they have to burn to do it so much that they don't stop to ask, they just go out and start singing. That's what I did, and I'm *shy*. You don't do it by going to workshops and getting advice; you just have to sing together with musicians and look for your own jobs. It's impossibly hard, and I still can't believe all the things I went through, but if you burn to do it, you do it—and that burning shows up in your singing, as your commitment, and it finally develops into a certain presence and authority. I used to think it was magic. It's not magic, it's just knowing that you belong in that spot doing that music." □

RECORD MAKERS

BY CHRISTIE BARTER
AND STEVE SIMELS



Vestron Video



CBS Records

Thrills and chills on the tube: Jackson (top) and Osbourne

MONSTER RALLY 1984: No, those hideous creatures aren't extras from *The Day After*—they're Michael Jackson and friends in a scene from *Thriller*, the controversial John Landis-directed music film based on Jackson's phenomenally successful song and album of the same title. Michael, as you can see, portrays the Coolest Ghoul in School.

Thriller has drawn some flack for its alleged violence,

and a lot of independent filmmakers are also crying foul because it's being entered in the Oscar sweepstakes for Best Short Subject—estimates of its cost are in the neighborhood of a million dollars. Meanwhile, Vestron Video's documentary *Making Michael Jackson's Thriller*, an hour-long program that contains the entire film as well as early Jackson Five clips, backstage stuff, and lots more,

has been shipped with the largest initial run of any video recording in history—100,000 units. Available in all disc and tape formats, it lists for \$29.95. The Epic LP, which according to CBS topped twelve million in U.S. sales alone, bounced back to the No. 1 spot on the *Billboard* chart after millions more rushed out to buy it. □

"MY SON, YOU WEAR THE MARK OF THE BEAST." No, that hideous creature isn't an extra from *Thriller*—it's just irrepressible heavy-metal kingpin Ozzy Osbourne in a scene from *Bark at the Moon*, the title song from his latest LP assault on the sensibilities of American rock fans. Did Osbourne get the idea from Jackson's lycanthropic turn in *Thriller*? Or vice versa? Or, come to think of it, are they both just big Lon Chaney, Jr. fans? We don't know, and Ozzy, whose earlier publicity stunts have included biting off the head of a pigeon in front of stunned CBS executives, isn't talking. In any case, a trend is clearly in the making. Wolfsbane rock, anyone? □

AND just in case you were beginning to wonder if the only way to make it in

video was to grow fangs and have your flesh rot, we offer the obviously all-American **Men of Chippendales**, the physically fit stars of Pioneer's new laser-video exercise disc "Muscle Motion." Clearly, these guys sell videos the old-fashioned way: they peddle beefcake. According to Pioneer, "Muscle Motion" is "a physical and sensual experience for both men and women," and they guarantee that "you'll do some heavy breathing even if all you do is watch." Hmm. If I want heavy breathing, I watch Diana Rigg in old *Avengers* reruns. In any case, "Muscle Motion" is available in stereo and standard play, list price \$24.95. □

James Galway, the internationally acclaimed flutist, is performing with Zubin Mehta and the New York Philharmonic Orchestra on PBS's Live from Lincoln Center in a pension fund benefit concert on February 29. The program will include Mozart's Concerto for Flute and Harp (Marisa Robles joins Galway on the harp) and Rodrigo's *Fantasia para un gentilhombre*, which Galway has adapted for the flute.

Galway will also be seen regularly by PBS viewers when his successful British

Men of Chippendales: beefcake to build the body by



Pioneer LaserDisc



Denver: hosting the Grammys again

television series *Music in Time* bows on local stations around the country this spring. The flutist serves as host for this sixteen-part feast of sound, which traces the history of music from Gregorian chant to twentieth-century vocal and orchestral works. The television program coincides with the RCA release of music taken from the series. The

four-disc boxed set also includes Galway's personal notes on the composers he covers. □

THE annual Grammy Awards, being telecast live from the Shrine Auditorium in Los Angeles on February 28, are being hosted again this year by John Denver. Currently represented

by a new RCA release, "It's About Time" (reviewed on page 80), Denver is making his fifth appearance as Grammy host. □

EVERY year the New York Philharmonic produces an album of recordings from its archives in support of its Radiothon fundraiser broadcast by WQXR in the city. This year's entry honors Bruno Walter, conducting the orchestra in works that he is not known to have recorded otherwise—Debussy's *La Mer*, Vaughan Williams's *Tallis Fantasia*, and Weber's Overture to *Euryanthe*. Also featured is Brahms's Second Piano Concerto with Dame Myra Hess as soloist, believed to be her only recorded performance of the work. The price of the two-record set is \$20, which includes handling and shipping. Checks should be made payable to Radiothon, New York Philharmonic, and mailed to 132 West 65th Street, New York, N.Y. 10023. □

Harvey and Baryshnikov at the Met: Great Performances on PBS



lights—ranging from Pablo Casals playing at the Kennedy White House to Bob Dylan and Woodstock. □

AMERICAN BALLET THEATRE'S celebrated production of *Don Quixote (Kitri's Wedding)* is being telecast on PBS stations country-wide on March 5. Starring its choreographer, Mikhail Baryshnikov, and ballerina Cynthia Harvey, the ninety-minute program is part of the network's *Dance in America Great Performances* series and was taped live last season at the Metropolitan Opera House. □



A Soldier's Tale for the Eighties (courtesy PBS)

STRAVINSKY'S *L'Histoire du soldat* (*A Soldier's Tale*), described by the composer as "a story, told, acted and danced," has been animated—and "updated"—on film by R. O. Blechman for a PBS telecast on March 19. The musical portion of the soundtrack derives from a new Delos recording of the suite by the Los Angeles Chamber Orchestra under Gerard Schwarz. Added to it for the telecast is narration by André Gregory and the voices of Galina Panova, Max von Sydow, and the Yugoslavian film director Dusan Makavejev in the principal roles of the Princess, the Devil, and the Soldier, respectively. The Delos/LACO recording of the *Histoire Suite* is being released this month on Compact Disc, filled out with

Shostakovich's First Piano Concerto, with Carol Rosenberger as the soloist, and Prokofiev's *Classical Symphony*. An LP of the suite coupled with the Shostakovich concerto follows. □

THE first recording John Williams and the Boston Pops made for Philips was "Pops in Space." It was also Philips's first digital recording, and with such titles as *Star Wars*, *The Empire Strikes Back*, *Superman*, and *Close Encounters* making up its contents, it's not surprising that sales to date are well in excess of 100,000. To celebrate, Philips staged a little party for Williams and presented him with a Magnavox (né Philips) Compact Disc player.

Now on his second con-

tract with the Pops and happily ensconced as its conductor, Williams still has time to accept the occasional invitation to guest-conduct other orchestras, including, recently, the Toronto Symphony and the Buffalo Philharmonic.

Williams's new space odyssey for Philips, "Out of This World," is reviewed on page 98. □

AND YET MORE VIDEO: No, these aren't out-takes from Costa-Gavras's *Missing*. The Latino guerrillas glimpsed here are, of course, none other than the Rolling Stones in their latest entry into the big-bucks video sweepstakes, *Undercover of the Night*. *Undercover*—which is being shown in several different edited versions more or less coinciding with the disco, LP, and single mixes of the song itself—has been banned for broadcast on the BBC in England because of (you guessed it) its

violence. But according to Head Stone Mick Jagger, the clip "is a film about political repression, with no kind of gratuitous violence in it at all." □

GRACENOTES: The next James Bond flick with Roger Moore, *From a View to Kill*, may co-star none other than David Bowie as the villain! Casting won't be final until April, but the figure for Bowie's appearance being bandied about in the meantime is in the neighborhood of three million.... Byrdmania Strikes Nashville: Dolly Parton recently recorded a cover version of the Byrds' classic *Turn! Turn! Turn!* produced by Val Garay (of *Bette Davis Eyes* fame), and now country star Vern Gosdin has gone her one better. Gosdin's new version of the song features none other than original Byrd Roger McGuinn on electric twelve-string guitar and harmony.

Williams: out of this world



Boston Symphony Orchestra

The Stones: banned on the BBC



Promotone B.V.

... Sony has installed a toll-free hotline (1-800-221-9980) to satisfy fans who can't find Video 45's in their local stores.... Puerto Rican pube-rockers Menudo have a new member, thirteen-year-old Robby Rosa, to replace Johnny Lozada, now sixteen. Menudo is run something like the Vienna Boys Choir: when a member hits sixteen, he's given his walking papers. Rosa—who, unlike his colleagues, can sing in Spanish and English—will do the warbling on the theme for the next Burt Reynolds flick, *Cannonball Run II*. Rumors that Menudo has an American drummer named Gringo Starr are unfounded. □

Best of the Month

Stereo Review's Selection of Recordings of Special Merit

JESSYE NORMAN:
VOLUPTUOUS TONE,
MATURE ARTISTRY
IN STRAUSS SONGS

RICHARD STRAUSS wrote glorious things for the soprano voice. His lifelong infatuation with its sound culminated in the Four Last Songs of 1948, the aged composer's farewell to life. Is it surprising that sopranos have reciprocated the composer's passion with a steady stream of recordings? Within the last year alone, we have had versions by Sylvia Sass, Elisabeth Söderström, Lucia Popp, and Kiri Te Kanawa. Earlier recordings by Elisabeth Schwarzkopf and Gundula Janowitz are still in the active catalog.

That is a formidable list indeed, and yet I would not place any of the previous versions above Jessye Norman's new one on Philips. Surely no other soprano can encompass the wide range of these four songs with Norman's effortless command. She sacrifices none of the voluptuous quality of her tone in any part of that range, and with an almost seamless legato and consistently pure intonation, she also manages to convey the texts with admirable clarity. Among the many beautiful details here is the triumphantly soaring line "*Und die*

Soprano Jessye Norman: effortless command



Philips Records



Mike Proci/Reema Ltd.

Dionne Warwick: elegant, powerful, profoundly moving

Seele unbewacht, will in freien Flügen schweben" in the third of the four songs, *Beim Schlafengehen*. (According to the album notes, permission to print English translations for three of the songs "could not be obtained." How have other record companies obtained them for decades?)

The same lustrous tone and sovereign command enriches Norman's overside renditions of the six fairly familiar Strauss songs in Robert Heger's eminently Straussian orchestrations. She is just as "right" in the Wagnerian torrents of *Cäcilie* as she is in the delicate *Wiegenlied* or in the ecstatic *Zueignung*. This gifted soprano, who began her career as a vocal phenomenon but a somewhat inconsistent interpreter, now seems to have reached the full realization of her amazing promise. Her Sieglinde in the Eurodisc *Walküre* set signaled the start of a new phase of artistic maturity; it reaches its culmination in this disc of Strauss songs.

Conductor Kurt Masur's tempo for *Im Abendrot*, the last of the Four Last

Songs, is a bit too leisurely, but otherwise I find both the orchestral performances and the recorded sound excellent. —George Jellinek

RICHARD STRAUSS: *Four Last Songs. Six Songs with Orchestra: Cäcilie; Morgen; Wiegenlied; Ruhe, meine Seele; Meinem Kinde; Zueignung.* Jessye Norman (soprano); Leipzig Gewandhaus Orchestra, Kurt Masur cond. PHILIPS ● 6514 322 \$11.98, © 7337 322 \$11.98; © 411 052-2, no list price.

DIONNE WARWICK TEAMS UP WITH LUTHER VANDROSS

IT was a longstanding dream of Luther Vandross, the current golden boy of rhythm-and-blues, someday to produce albums for the two women who were his idols when he was a teenager growing up in New York City housing projects and entering amateur-night contests at Harlem's

Apollo Theater with his own fledgling singing group. He realized part of that dream in 1982 when he produced "Jump to It" for Aretha Franklin, the album that rejuvenated the career of America's all-time soul queen. Now he's realized the other half with the release of Dionne Warwick's "How Many Times Can We Say Goodbye." Vandross not only produced the Arista album but also wrote most of the songs and joins his star in a duet on the title cut. Warwick sings in a lower register than usual for this selection, which allows her and Vandross to meet in a common musical range, blending their voices into what seems to be a single sound.

There are many other moments of musical delight here. *So Amazing* has a sinuous vocal line that's ideally suited to Warwick's approach, and the background vocals fit snugly. A real surprise is *Two Ships Passing in the Night*, a delicate ballad that Warwick wrote herself; it makes me want to hear more of her compositions. *I Can Let Go Now* showcases Warwick's vocals against the lacy filigree of Nat Adderley, Jr.'s piano playing in an elegant and affecting tone poem.

The album's high point is the closing track, a gorgeous and profoundly moving performance of *Will You Still Love Me Tomorrow* by Carole King and Gerry Goffin. Warwick is joined here by the Shirelles, also among Luther Vandross's boyhood favorites. The collaboration is full of historical significance, since this song gave the Shirelles their first million-selling hit when they introduced it back in 1962 (it was later that it became identified with Roberta Flack). It was released on the Scepter label, which the Shirelles had launched and which later launched Warwick's own recording career.

Warwick hints at this long association in her spoken introduction to the song, and as the first notes of the melody are sung by one of the original Shirelles, we remember old times, old songs that brought us joy. The song ultimately becomes a virtuoso vehicle for Warwick, whose singing here is perhaps more powerful and emotional than it has ever been before. And the arrangement, by Adderley and Jimmy Webb, is as lustrous and rich as Warwick's voice. This one track is a rare musical moment, and it more than redeems the less-successful selections on the first side in which the singer is pitted against an overdriving rhythm section on trite, uptempo numbers that are totally unsuited to her style.

A faltering step or two notwithstanding, we can be grateful that Luther Vandross has fulfilled his dream of producing Dionne Warwick. This release can only further embellish both their reputations.

—Phyl Garland

DIONNE WARWICK: *How Many Times Can We Say Goodbye.* Dionne Warwick (vocals); vocal and instrumental accompaniment. *Got a Date; So Amazing; I Do It 'Cause I Like It; How Many Times Can We Say Goodbye; What Can a Miracle Do; Two Ships Passing in the Night; I Can Let Go Now; Will You Still Love Me Tomorrow.* ARISTA AL8 8104 \$8.98, © AC8 8104 \$8.98.

GLENN GOULD'S PERSUASIVE BEETHOVEN SONATAS

ABOUT fifteen years ago, the late Glenn Gould wrote his own notes for his recording of Beethoven's *Appassionata* Sonata: he described it as an overrated work and not a very good one, and he played it in a way that tended to support that judgment. The annotation for Gould's new,

posthumously released CBS recording of Beethoven's Piano Sonatas Nos. 12 and 13, by Phillip Ramey, is not at all controversial, and neither are the performances. In a thoroughly different vein from those on the earlier Beethoven disc, they are among the most persuasive accounts of these two sonatas we are likely to encounter, on records or otherwise.

Gould here simply goes to the heart of the music, with as little regard for interpretive overlay as for surface gloss. Everything Beethoven set down is laid plain before the listener. Nothing is overlooked, and all the elements are just about ideally balanced. The so-called *Funeral March* Sonata in particular gets the sort of full and true realization on which alone any performer's reputation might rest—precisely because, I think, Gould was far more concerned with the music than with personal recognition. Both Gould's and Beethoven's capacities for wit are stunningly revealed in the subtle yet stalwart reading of the companion work, Op. 27, No. 1. Yes, there is a fairly assertive vocal obbligato, but, for whatever reason, it does not seem at all disfiguring.

This album is one of the very finest

things Gould left us, and CBS has provided an absolutely first-rate recording. In a word, indispensable.

—Richard Freed

BEETHOVEN: *Piano Sonata No. 12, in A-flat Major, Op. 26 ("Funeral March"); Piano Sonata No. 13, in E-flat Major, Op. 27, No. 1.* Glenn Gould (piano). CBS M 37831, © MT 37831, no list price.

EMMYLOU HARRIS'S "WHITE SHOES": REAL ROCK ENERGY

EMMYLOU HARRIS has been doing a rock-and-roll medley in her live stage show for several years now, but the implication was always that she did it as a goof or perhaps as a vehicle to spark the tempo and the audience near the end of her set. In the process, however, she whetted her audience's appetite for a real rock-energy album.

Now she's done one, "White Shoes" on Warner Brothers, and what an album it is! Actually, Harris has recorded rock-and-roll before, most memorably Chuck Berry's *You*

CBS Masterworks



*The late
Glenn Gould:
at the heart
of the music*

Best of the Month

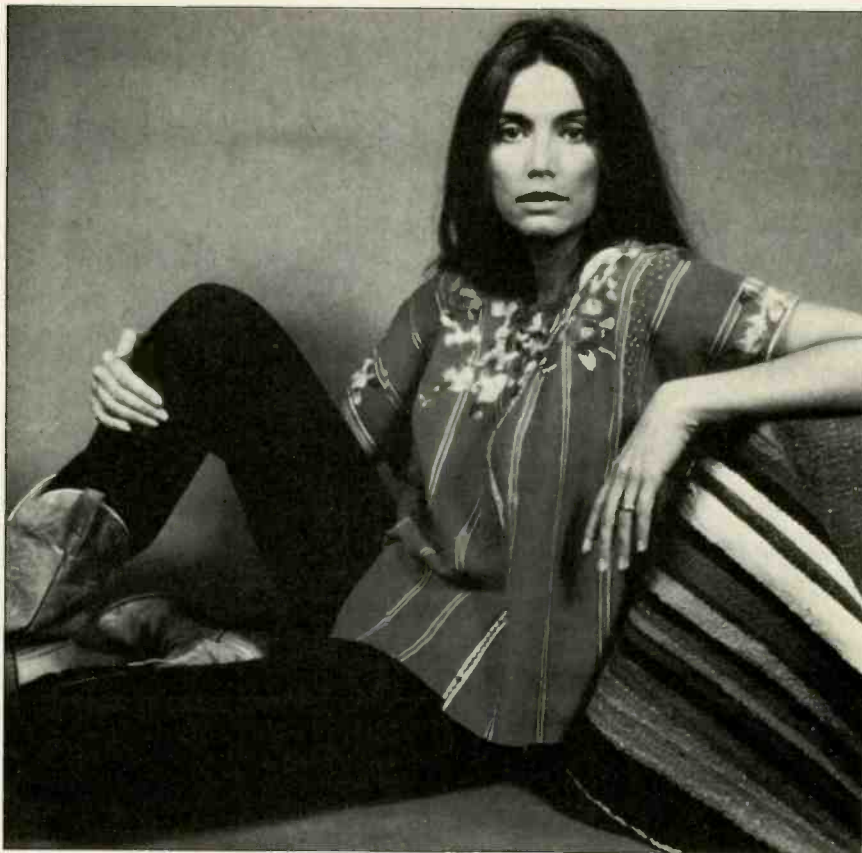
Recent selections
you might have missed

POPULAR

- **Peabo Bryson and Roberta Flack: *Born to Love*.** CAPITOL ST-12284. "... a flawlessly assembled album of contemporary r-&b ..." (December)
- **Guy Clark: *Better Days*.** WARNER BROS. 23880-1. "... the finest album to come out of Nashville this year ..." (November)
- **Joe Jackson: *Mike's Murder*.** A&M SP-4931. "... captures the thrill, danger, and loneliness of being young in New York in the Eighties." (January)
- **David Murray Octet: *Murray's Steps*.** BLACK SAINT BSR 0065. "Accessible modern jazz." (February)
- **Carly Simon: *Hello Big Man*.** WARNER BROS. 1-23886. "... exuberant, sexy, funny, sometimes poignant. ... Don't miss it." (December)
- **Ricky Skaggs: *Don't Cheat in Our Hometown*.** EPIC FE 38954. "... a landmark album ..." (February)
- **Sissy Spacek: *Hangin' Up My Heart*.** ATLANTIC AMERICA 90100-1. "... cuter than a speckled pup in a little red wagon." (January)
- **Was (Not Was): *Born to Laugh at Tornados*.** GEFEN/ZE GHS 4016. "A different kind of rock/r-&b album." (February)
- **Neil Young: *Everybody's Rockin'*.** GEFEN GHS 4013. "... a brilliant goof ... spontaneous sounding and funny." (December)

CLASSICAL

- **J. S. Bach: *Goldberg Variations*.** LONDON LDR 72013. "... an expansive, thoughtful, clarifying, yet utterly unselfconscious reading ..." (January)
- **Chausson: *Concert in D Major for Violin, Piano, and String Quartet*.** CBS IM 37814. "... a rediscovery of a little-known masterwork." (February)
- **Debussy: *La Mer; Nocturnes*.** CBS IM 37832. "Excellent performances, superb digital sound." (January)
- **Handel: *Hercules*.** ARCHIV 2742 004. "A great work gets a great performance." (December)
- **Rachmaninoff: *Symphony No. 3; "Youth" Symphony*.** LONDON LDR 71031. "... sensuous and richly nuanced. ..." (December)
- **Rossini: *Il barbiere di Siviglia*.** PHILIPS 6769 100. "... the best Barber in some twenty years." (November)
- **R. Strauss: *Death and Transfiguration; Till Eulenspiegel; Don Juan*.** PHILIPS 6514 228. "... a wholly memorable aural and emotional experience." (February)



Emmylou Harris: sensual, theatrical, inspired

Never Can Tell, as well as any number of country-rock numbers that were more rock than country. In a sense, then, "White Shoes" is not such a radical departure. Still, this is a highly eclectic, if exquisite, set of tunes, starting with T-Bone Burnett and Billy Swan's neo-rockabilly *Drivin' Wheel*. Paying tribute to rock-and-roll roots, Harris revives the slow dance *Pledging My Love*, a hit for both Johnny Ace and Teresa Brewer in 1955, giving it a more sensual treatment than either of those versions. From there, she moves on to two inspired versions of Rodney Crowell tunes and then delivers a gut-grabbing performance of Shirley Eikhard's wistful *Good News*.

In the midst of all this good taste, however, there's a real clunker: an embarrassing, too-hip recitation of *Diamonds Are a Girl's Best Friend*, a failure in every way. But Harris could have offered an entire side of boners and still saved the album with two songs—Jack Tempchin's evocative *White Shoes* and Giorgio Moroder and Donna Summer's *On the Radio*. Aided by a haunting guitar solo by ex-Doobie John McFee, Harris recasts the Summer hit in both interpretation and tempo, coming across as more vulnerable than frenzied in an intensely intimate, breathtakingly

soulful performance. *White Shoes*, on the other hand, forges the determined spirit and pride of Carl Perkins's *Blue Suede Shoes* with the fraternal pulse and beat of all the Sixties girl-group songs. Striking a just-right theatrical pose, Harris milks it for all it's worth: "I said, 'Lou, you gotta start new/ And the first thing you gotta do/Is get some white shoes.'"

There are fleeting moments in this buoyant set when Harris's voice seems to catch and falter more from accident than from choice, and several songs are slightly marred by her increasing tendency to slur the words in phrases of extreme emotion. But that's nit-picking. The important thing is that after several mediocre albums in the last couple of years, Emmylou Harris is back with an inordinately strong release, one that should bolster her reputation as a superior interpreter of not only country music but rock as well. —Alanna Nash

EMMYLOU HARRIS: *White Shoes*. Emmylou Harris (vocals); vocal and instrumental accompaniment. *Drivin' Wheel; Pledging My Love; In My Dreams; White Shoes; On the Radio; It's Only Rock 'n' Roll; Diamonds Are a Girl's Best Friend; Good News; Baby, Better Start Turnin' 'Em Down; Like an Old-Fashioned Waltz.* WARNER BROS. 23961-1 \$8.98, © 23961-4 \$8.98.

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Classical Music

DISCS AND TAPES
REVIEWED BY
RICHARD FREED
DAVID HALL
GEORGE JELLINEK
STODDARD LINCOLN
ERIC SALZMAN

C. P. E. BACH: Concerto for Harpsichord and Strings in G Major (Wq. 16); Concerto for Harpsichord and Strings in G Minor (Wq. 32). Malcolm Hamilton (harpsichord); Los Angeles Chamber Orchestra, Gerard Schwarz cond. NONESUCH ● 79055-1 \$11.98, © 79055-4 \$11.98.

Performance: **Strong**
Recording: **Well-balanced**

Continuing his project of recording the C. P. E. Bach harpsichord concertos, Malcolm Hamilton here offers a splendid concerto in G Minor and a rather routine one in G Major. His strong, vigorous playing is perfect for the *Sturm und Drang* fast movements of these works, but the lyricism of the slow movements suffers from rigid tempos and lack of rubato. The Los Angeles Chamber Orchestra turns in beautiful performances under Gerard Schwarz, and, as is rarely the case with recordings of harpsichord concertos, the Nonesuch engineers have handled the perennial problem of instrumental balance very well. S.L.

RECORDING OF SPECIAL MERIT

BEETHOVEN: Diabelli Variations, Op. 120. Friedrich Gulda (piano) HARMONIA MUNDI HM B 5127 \$7.98.

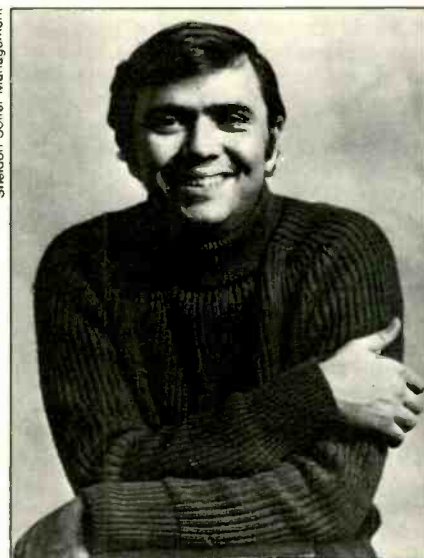
Performance: **Invigorating**
Recording: **Very good**

According to the liner information, this recording was made in 1970, but as far as I can tell, this is its first appearance in the

Explanation of symbols:

- = digital-master analog LP
- Ⓢ = stereo cassette
- Ⓢ = digital Compact Disc
- Ⓢ = eight-track stereo cartridge
- Ⓢ = direct-to-disc recording
- Ⓢ = monophonic recording

U.S. It is a fresh, invigorating presentation of a work all too frequently overloaded with cosmic values. The music, of course, is a sort of cosmos unto itself in its spectrum of moods and its endless inventiveness, and it lends itself to a variety of convincing approaches. This one by Friedrich Gulda, frequently recalling his involvement with jazz, is unencumbered



Conductor Gerard Schwarz

by any trace of solemnity or self-consciousness. It is fleet, straightforward, particularly alert to the work's abundance of wit, crystal clear in its objectives and its pursuit of them. From the initial statement of the theme, it is apparent that Gulda relishes this assignment. The sound is as clear and solid as the performance itself, and the pressing is exemplary. The price is right too. R.F.

BEETHOVEN: Piano Sonata No. 12, Op. 26; Piano Sonata No. 13, Op. 27, No. 1 (see Best of the Month, page 61)

RECORDING OF SPECIAL MERIT

BRAHMS: Zigeunerlieder, Op. 103; Five Songs, Op. 72; Vier ernste Gesänge, Op. 121. Jan DeGaetani (mezzo-soprano); Gilbert Kalish (piano). ARABESQUE 8141-L \$8.98, © 9141-L \$8.98.

Performance: **Outstanding**
Recording: **Very good**

While the Brahms sesquicentennial was celebrated last year with several very

large-scale releases, I doubt that there has been anything more affecting than this superb presentation by Jan DeGaetani and Gilbert Kalish of three sets of his songs in contrasting moods. Singer and pianist are remarkably together in projecting the melancholy that underlies the Gypsy gaiety of the *Zigeunerlieder*, as well as the radiance beneath the mournfulness of some of the Biblical texts of the *Vier ernste Gesänge*. Although Arabesque charges an additional dollar for the printed song texts, the price of this set is still well below that of most issues of comparable quality, and DeGaetani's singing of *O kühler Wald* alone, or of the last of the *Ernste Gesänge*, would more than justify almost any price asked. R.F.

DALLAPICCOLA: Canti di prigionia (see WEILL)

DUKAS: Ariane et Barbe-Bleue. Katherine Ciesinski (mezzo-soprano), Ariane; Gabriel Bacquier (baritone), Barbe-Bleue; Mariana Paunova (contralto), Nurse; others. Choeurs de Radio France; Nouvel Orchestre Philharmonique, Armin Jordan cond. ERATO/RCA NUM 750693 three discs \$21.98.

Performance: **Good**
Recording: **Very good**

Paul Dukas, an unusually fastidious and self-critical composer, left a mere handful of major works: one symphony, one piano sonata, one ballet, and one opera—*Ariane et Barbe-Bleue*. The librettist was Maeterlinck, and interestingly, Dukas was not his first choice as a composer. Dukas began working on the text only after Grieg had declined the privilege.

According to Maeterlinck's text, Ariane, the new wife of the mysterious Bluebeard, discovers her predecessors in his gloomy castle. They are not dead, as rumor has it, but alienated from life and reconciled to their captivity. Ariane is determined to free them. She exposes them to sunlight for the first time in years and urges them to escape to freedom, but when the opportunity presents itself, the wives willingly return to captivity.

The opera is awash with symbolism. Ariane stands as a symbol of enlightenment, and the story can easily be interpreted as a feminist tract against marriage or social conventions that relegate women to a servile status. One may also go a step further and equate these women with humanity itself, held in unenlightened bondage. In one of the three outstanding essays that come with the Erato set (the



S. Lauterwasser/Unite/DG

Bernstein's Brahms

LEONARD BERNSTEIN'S new set of the Brahms symphonies and three other orchestral masterpieces, like his 1980 Beethoven symphony cycle, was recorded in concert performances with the Vienna Philharmonic. The digital mastering this time is a welcome extra, and what is most immediately striking about these records is the gorgeously full, beautifully balanced orchestral sound. Also very evident is the tremendous responsiveness Bernstein has elicited from the orchestra's superb musicians.

Despite a very slow, strongly *sostenuto* treatment of the slow movement, Bernstein's reading of the First Symphony is stunningly dramatic. The opening movement seems almost on the same interpretive level as Furtwängler's version. The exposition repeat is taken, but I don't see that much is gained by it (unlike that in the first movement of the Second Symphony, where some nice transition music is encountered). The intermezzo-like third movement is taken at a slowing pace, but there are canny and highly effective touches of rubato and subtle nuances. The finale generates a terrific excitement, culminating in the mighty "free at last" climax that ushers in the recapitulation.

A fine singing quality enhances the opening pages of the Second, leading to a wonderfully played coda with its famous solo-horn writing. The slow movement is all darkly lyrical, more *adagio* than *adagio non troppo*, but there is a nice lift and delicacy to the following *allegretto grazioso*—with marvelous orchestral execution. The finale misses fire, surprisingly; a notch more urgent pacing would have helped.

The Third Symphony, a special favorite of mine, gets off to a splendid start with a first movement full of the heroic quality imparted to it in the past by such conductors as Mengelberg, Koussevitsky, Klemperer, and Szell. The slow movement gets tender loving care, with particular attention paid to the inner balances among the string choirs. The always-beautiful third movement, with its memorable solo-horn restatement of the main melody, is lingered over a bit much, but the finale achieves a fine momentum.

The monumental Fourth gets a sinewy,

impassioned treatment in the first movement that I found convincing. Some may consider the slow movement here a bit fussy in spots, but the scherzo is gloriously defiant. The only other comparable utterance in Brahms's output is the E-flat Major Rhapsody, Op. 119, No. 4, his very last solo-piano piece. The final *passacaglia* comes off splendidly. As he does throughout the cycle, Bernstein here pays special attention to the various wind colorations. The variations for solo flute, for example, will linger in your ears for some time after listening to this recording. The final pages of the symphony are hammered home eloquently and decisively.

Bernstein's New York Philharmonic recording of the *Academic Festival Overture* on Columbia has long been a favorite of mine, but his new one here is even more gloriously spirited and wonderfully recorded. The *Tragic Overture* is marginally less satisfying; the lyrical element is very prominent in the score, and the rhythmic pulse seems a bit staid. The Haydn Variations is a mixed bag, with some questionable tempos, though the early pages are marked by a wonderful elegance and gentleness of phrase, and the magnificent ground-bass finale gets a solemn, even monumental treatment.

Despite some wayward elements in some of the performances, this is a Brahms cycle to be reckoned with. As with the Beethoven symphonies, Bernstein has rethought these masterworks, which too often are treated routinely by today's orchestras. The results are vital and provocative, and they are enhanced by recorded sound that is remarkable by any standard, but particularly so for live recordings.

—David Hall

BRAHMS: Symphonies: No. 1, in C Minor, Op. 68; No. 2, in D Major, Op. 73; No. 3, in F Major, Op. 90; No. 4, in E Minor, Op. 98. Variations on a Theme by Haydn, Op. 56a; Academic Festival Overture, Op. 80; Tragic Overture, Op. 81. Vienna Philharmonic Orchestra, Leonard Bernstein cond. DEUTSCHE GRAMMOPHON ● 2741 023 four discs \$47.92, © 3382 023 three cassettes \$47.92; © 410 081-2, 082-2, 083-2, 084-2 four discs available individually, no list price.

others are by Dukas himself and by musicologist Harry Halbreich), Olivier Messiaen designates these words of St. John as the opera's motto: "The Light shines in the darkness, and darkness has not understood it."

The Dukas opera was introduced in 1907, and it bears obvious similarities to Debussy's *Pelléas et Mélisande* (1902) and Bartók's *Bluebeard's Castle* (1911). But, unlike Bartók's tormented and very verbal Bluebeard, Dukas's Prince is more of a symbol than a participant, his part reduced to a few minutes of singing. The opera thus suffers from crucial defects as a viable stage work. Its workmanship, however, is certainly noteworthy. Harmonically, it occupies a center position between Debussy's impressionism and Bartók's subtly "barbaric" *Bluebeard* idiom. The orchestral writing is brilliant—more powerful and assertive, if not nearly as mesmerizing, as Debussy's. Among the high points are Ariane's "Diamond Aria" and the really haunting vault scene, with a Gothic song ("Les cinq filles d'Orlamonde") filtering through the distance, both in the first act, and the opera's finale as the five wives painfully yet decisively abandon their departing rescuer.

The performance is very fine indeed. Perhaps the orchestra of Radio France is not one of the world's great ensembles, but here, under Armin Jordan's certainly inspiring leadership, they give a brilliant account of this admittedly problematic work. Katherine Ciesinski is billed as a mezzo, but Ariane is clearly a soprano role (Farrar sang it during the opera's brief tenure at the Metropolitan), a non-stop tour de force that is most impressively accomplished by this young American artist. The only other role that has any grateful writing to speak of is that of the Nurse; as interpreted by Mariana Paunova's rich contralto, her music is effectively contrasted with Ciesinski's brighter instrument. Gabriel Bacquier's somber and expressive singing as Bluebeard makes us wish that Dukas had been more generous with the music assigned to him.

Ariane et Barbe-Bleue has its problems, but it has certainly been worthily served by this première recording. G.J.

DVOŘÁK: Te Deum, Op. 103; Psalm 149, Op. 79; Hymnus, Op. 30. Gabriela Beňačková (soprano); Jaroslav Souček (baritone); Prague Philharmonic Chorus; Czech Philharmonic Orchestra, Václav Neumann cond. PRO ARTE ● PAD-155 \$9.98, © PCD-155 \$9.98.

Performance: **Hearty**
Recording: **Excellent**

This is hearty, good-feeling choral music performed and recorded with spirit and style in Prague by Supraphon. The *Te Deum*, by far the most important of these works, has American associations: it was first performed in New York in 1892 for the four-hundredth anniversary of Columbus's arrival in America (an occasion on which a certain Col. Higginson saluted "the New World of Columbus and the new world of music" in a speech that may have given Dvořák an idea). These circumstances plus the late opus number

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have led some writers to state that this quite stirring *Te Deum* was written in America, but Dvořák seems to have brought it over with him. *Hymnus*, on the other hand, was the work with which Dvořák first made a name for himself at home, and it has freshness and charm. The *Psalm*, written only a few years later on commission from the same choral society, is the weak sister (or rather, since this is male chorus music, brother). Good performances and recordings but, alas, no texts or translations. My Czech was not quite good enough to follow Vitezslav Halek's "Heirs of the White Mountain," obviously a major element in the setting of *Hymnus*. E.S.

ELLINGTON: *The River, Suite*.
MAYUZUMI: *Essay for String Orchestra*. Louisville Orchestra, Akira Endo cond. FIRST EDITION LS 777 \$7.98 (from First Edition Records, 609 West Main Street, Louisville, Ky. 40202).

Performance: **Good**
Recording: **Good**

In the standard music reference works the creative geniuses of American black music generally get short shrift. The outstanding exception is Duke Ellington, who, by almost universal agreement, is taken seriously as a composer—as much as, say, Copland or Gershwin. Ellington did, it is true, transcend the pop song to compose original pieces in large idioms. The best of these were created for his own band. The creation or transcription of works for standard symphony orchestra was, in general, more problematic.

The River, written near the end of Ellington's life and choreographed by Alvin Ailey for the American Ballet Theater, wears its symphonic scoring (probably not by Ellington anyhow) somewhat uncomfortably. The idea of tracing the flow of a great river as an allegory of human life does not seem to inspire a coherent musical treatment until the journey is almost two thirds over. Then, somehow, the torrent gathers strength and turns into a mighty and awe-inspiring flow. Earlier there are flashes, but much of the movie-music scoring does not ring true. It is only the ending that transcends the earlier problems of the piece and seems to contain Ellington's real voice.

Toshiro Mayuzumi's *Essay* was written in 1963, relatively early in the composer's career. It is a spectacular piece of string craftsmanship in the expressionist slip-and-slide mode that was becoming popular at the time. It is one of the best and most personal pieces of its kind, and, unlike many works of the Sixties, it holds up very well today.

The performances are not spectacular, but they are solid, and the recording is reasonably effective. This is the 153rd release in the continuing Louisville series—virtually all of it twentieth-century music and hardly any of it obtainable anywhere else. E.S.

KABALEVSKY: *Cello Concerto No. 1, Op. 49* (see SHOSTAKOVICH)

MAHLER: *Symphony No. 6*. London Philharmonic Orchestra, Klaus Tenn-

stedt cond. ANGEL ● DSB-3945 two discs \$25.96, © 4X2S-3945 two cassettes \$19.98.

Performance: **Straight, sensitive**
Recording: **Mid-hall mellow**

MAHLER: *Symphony No. 5; Symphony No. 6*. Vienna Philharmonic Orchestra, Lorin Maazel cond. CBS ● 13M 37875 three discs, © 13MT 37875 three cassettes, no list price.

Performance: **Gemütlich**
Recording: **Big, yet intimate**

Mahler's Sixth Symphony has been discovered. Until recently obscure and rarely performed, it is, more than any other of Mahler's works, a classical symphony—the traditional four-movement form enlarged to huge proportions in size and structure but also in emotional content. It is sometimes subtitled "Tragic," and it is true that not much relieves its dark conflicts and torments of the soul. Nevertheless, it is a gripping and powerful work fully worthy of the attention it is currently receiving.

Klaus Tennstedt is much admired by Mahlerites in this country and England. This is the eighth release in his Mahler symphony series, and it is, like much of Tennstedt's work, honest, sensitive, and rather straightforward. Tennstedt constructs a solid through-line and lets the inner events unfold naturally without any special push or shove. His tempos are relatively calm, quite classical in the great tradition. Some details are passed over; a few clams are even left lying where they occur. Although this will bother some, others will gladly suffer a goof or two for the sake of the big line.

Lorin Maazel has one advantage over Tennstedt: the Vienna Philharmonic. Mahler's symphonies were written, conceptually as well as literally, for this orchestra, and among modern Western orchestras it has probably changed the least in three-quarters of a century. Maazel does not fuss with detail in the Bernstein manner, but he can push hard. His Sixth has a tight, exhausting first movement, a delicate, somewhat incoherent scherzo, a fast andante that lingers very little, and an energetic finale that lacks clarity of direction.

The Mahler Fifth, another purely instrumental symphony, is more unconventional in its outer form but much more comprehensible in its rather straightforward phraseology. It is correspondingly more successful here. Maazel has a tendency to "normalize" everything. He is not much interested in satire, in grotesquerie, in *Weltschmerz*, in inner states of mind, psychotic anguish, or emotional bloodbaths. This is, rather, the Mahler of ultimate skill and technique, complex but clear and dazzling orchestration, harmonic and contrapuntal originality, traditional values extended outward. This is the Mahler who created orchestral showpieces for virtuoso orchestras and conductors—not merely for brilliance or technique but also to show warmth, tone, narrative skill, and wealth of incident. It is a *gemütlich* sort of Mahler, divested of psychoses, well adjusted. Not surprisingly, this performance is hap-

piest in its lighter, dancing or singing moments, of which there are, fortunately, quite a few.

The CBS recording is close-up, warm, and surprisingly intimate for such a big sound—a superb recording achievement. The Angel sound is more like the traditional stereo picture, precise and mellow at mid-hall distance. The two ways of using the precision and range of digital sound are both highly effective. E.S.

MASSENET: *Manon*. Ileana Cotrubas (soprano), Manon Lescaut; Alfredo Kraus (tenor), Des Grieux; Gino Quilico (baritone), Lescaut; José van Dam (bass-baritone), Comte Des Grieux; Charles Burles (tenor), Guillot de Morfontaine; Jean-Marie Frémeau (baritone), De Brétigny; Ghyslaine Raphanel (soprano), Pousette; Colette Alliot-Lugaz (soprano), Javotte; Martine Mahe (mezzo-soprano), Rosette; others. Orchestra and Chorus of the Capote de Toulouse, Michel Plasson cond. ANGEL ● DSCX-3946 three discs \$39.98, © 4X3X-3946 three cassettes \$30.98.

Performance: **Idiomatic, intimate**
Recording: **Good**

Since the disappearance of the ABC Audio Treasury label and its very fine *Manon* with Beverly Sills and Nicolai Gedda, there has not been a stereo version of what is in many ways the greatest French opera. Angel's new set remedies that absurd situation and serves the cause of the opera well enough.

This *Manon* is suitably idiomatic, an essential characteristic in such an emphatically Gallic product. The frequent *parlando* passages, which are used by Massenet to such charming effect, are delivered with utter naturalness. Nothing is overstated. In fact, I wonder if an excessive effort has not been made to *understate*. Within an aural framework that lacks tonal warmth and richness and taking care not to submerge the smallish voices in the cast, Michel Plasson conducts a briskly paced and efficient *Manon*. For my taste, though, it is rather small-scaled.

Ileana Cotrubas and Alfredo Kraus are totally attuned to the style, and some of their scenes are brought off enchantingly. Kraus's *Le Rêve* is a model of delicate and highly artistic singing. I find Cotrubas rather subdued and two-dimensional most of the time, and, alas, we get a great deal of borderline intonation from both artists. In the not-too-demanding role of Lescaut, Gino Quilico shows a tone slender to the point of fragility and a limited range. José van Dam, however, is a standout as Des Grieux's father, a role that cries out for a kind of debonair smoothness to make it memorable.

The supporting characters and the chorus are generally satisfactory, though a more assertive De Brétigny would have helped. The packaging, with substandard photo reproductions and inaccurate matchings of the printed and sung texts, is nothing for Angel to be proud of. The stereo imaging is good, however. G.J.

MAYUZUMI: *Essay for String Orchestra* (see ELLINGTON)

Virtuoso

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Marriner's Schubert

IF Neville Marriner were asked to select a single disc with which to show his skills as a conductor—in the fullest sense, not only as the figure presiding over one of the most accomplished groups of players in the world, but as a first-rate interpreter—he could not choose better than his new Philips recording of Schubert's First and Fourth Symphonies. More than in his two earlier records of Schubert symphonies, and more, I think, than in virtually any of the dozens (or perhaps by now hundreds) of other recordings he has made with the Academy of St. Martin-in-the-Fields, he is here not merely persuasive but unarguably authoritative.

These performances are filled with affection, joy, and total identification with the unique characters of the works at hand. Surely when Schubert composed

these symphonies, at the ages of sixteen and nineteen, respectively, he regarded them as *big* works. Marriner gives them readings that are suitably large-scaled but youthful at the same time, realizing all their Schubertian warmth, charm, and vigor. Interpretation and execution alike are superb, and so is the recorded sound, which is warm and full-bodied yet crisply detailed. There is simply no other current recording of either of these works that is quite as satisfying as Marriner's.

—Richard Freed

SCHUBERT: *Symphony No. 1, in D Major (D. 82); Symphony No. 4, in C Minor (D. 417, "Tragic")*. Academy of St. Martin-in-the-Fields, Neville Marriner cond. PHILIPS ● 6514 261 \$12.98, © 7337 261 \$12.98.

MOZART: *Die Zauberflöte*. Guy de Mey (tenor), Tamino; Marjanne Kweksilber (soprano), Pamina; Harry van der Kamp (bass), Sarastro; Charles van Tassel (bass), Speaker; Isabelle Poulenard (soprano), Queen of the Night; Michel Verschaeve (baritone), Papageno; Thea van der Putten (soprano), Papagena; others. Utrecht Chamber Choir; Amsterdam Baroque Orchestra, Ton Koopman cond. ERATO/RCA NUM 750803 three discs \$32.98, © MCE 750803 three cassettes \$32.98.

Performance: **Different**
Recording: **Intimate**

This is a live *concert* recording of *Die Zauberflöte*, unlike any other version on discs of this much-recorded opera. There are twenty-eight musicians in the orchestra, probably comparable in size to the original 1791 Vienna ensemble, and they employ period instruments. Proponents of period authenticity will no doubt find

this a highly satisfying performance, and, indeed, there is much to praise here. The music emerges with an unusually intimate quality, the modest complement of strings does not overpower the warm-toned Baroque winds, the singers (not one of whom is really known) form a well-knit ensemble, and the conductor holds everything together admirably and encourages a certain amount of discreet vocal embellishment.

At the same time, reservations must also be registered. Virtually all of the dialogue has been edited out, and this is rather damaging in a performance that is not too strong in dramatic elements to start with. For all of Ton Koopman's musical correctness, his leadership lacks incisiveness and color variety. His brisk tempos work rather well most of the time, but a little less metrical rigidity would have helped. And Sarastro's music would have benefited from a more majestic treatment.

The singers are, without exception, laudable exponents of the Mozartian style. Isabelle Poulenard, as the Queen of the Night, has some problems with the writing, but so do other, far more celebrated singers. Even the Papageno, the weakest of the solo singers, is redeemed by his joyous involvement.

The recorded sound is delicate but also somewhat cramped. The disc surfaces are exemplary, and audience noises are minimal. I am far from convinced that this is the way Mozart operas should be done in the twentieth century, but I enjoyed the experience this recording offers. *G.J.*

RAMEAU: *Harpichord Suites in E Minor, D Major, A Major, and G Major*. William Christie (harpichord). HARMONIA MUNDI 1120/21 two discs \$23.96; © 40.1120 one cassette (E Minor and D Major Suites only) \$11.98.

Performance: **Well-wrought**
Recording: **Excellent**

William Christie employs every mannerism, and then some, known to scholars of French Baroque performance practice, and his recording of Rameau's great harpichord suites contains some of the most affected playing you may ever hear. Perhaps the most striking quality of Christie's playing is his extreme use of rubato coupled with a free, almost random, use of *notes ingales*. The *Les Soupirs* movement of the D Major Suite is a study in hesitation, *Le Rappel des oiseaux* in the E Minor a study in *accelerando*. In the hands of a lesser musician, such mannerisms would lead to chaos, but, for the most part, Christie uses them here to enhance the musical expression. There are moments, however, when I longed for a straightforward approach, a clean thrust to a cadence or an unhampered rhythmic drive. Still, Christie brings great depth of knowledge and musicianship to this music. *S.L.*

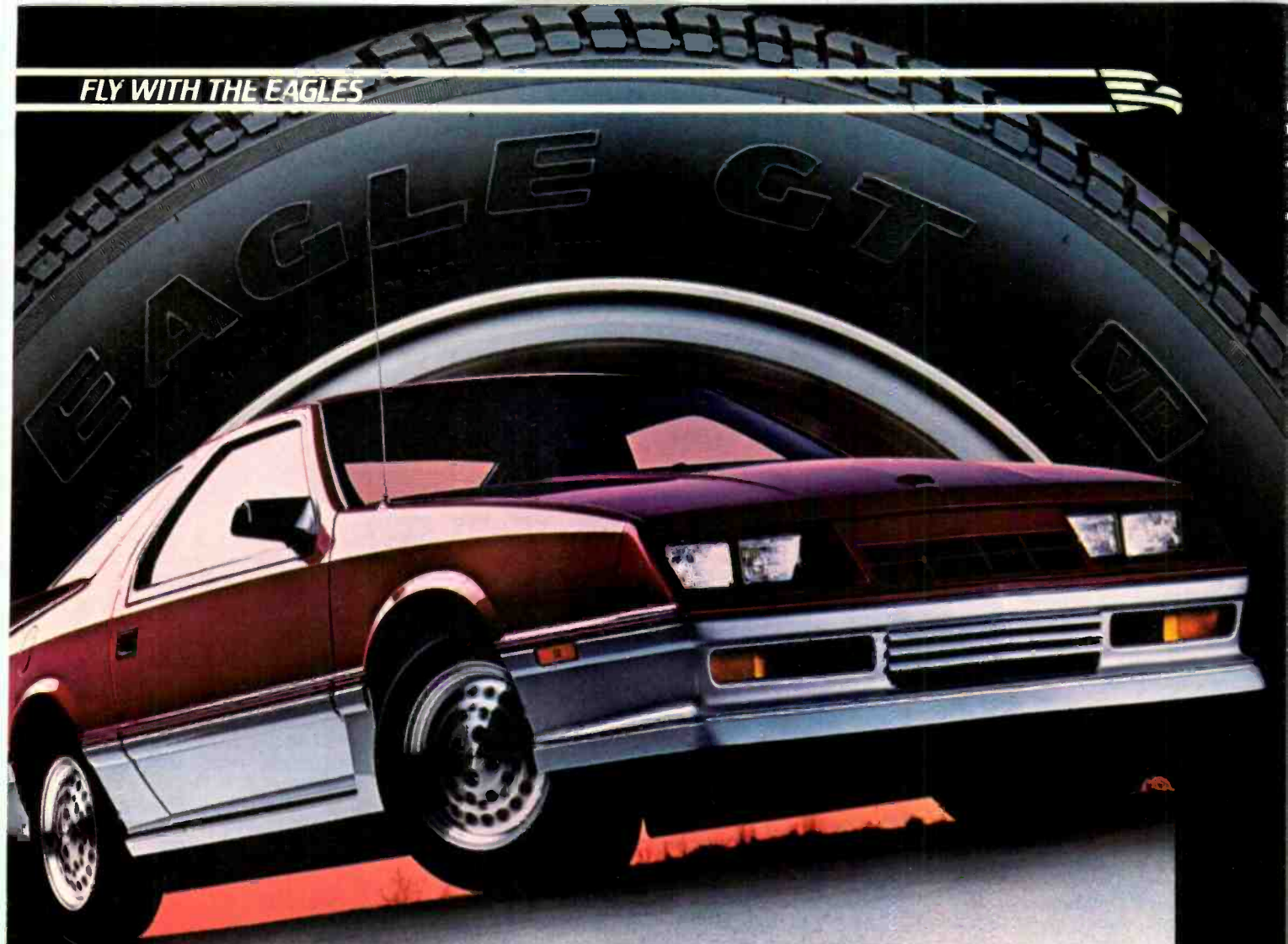
RECORDING OF SPECIAL MERIT

RAVEL: *Piano Concerto in G Major; Piano Concerto for the Left Hand; Menuet antique; Une Barque sur l'océan; Fanfare from "L'Éventail de Jeanne."* Pascal Rogé (piano); Orchestre Symphonique de Montréal, Charles Dutoit cond. LONDON ● LDR 71092 \$11.98, © LDR5 71092 \$11.98; © 410 230-2, no list price.

Performance: **Stunning**
Recording: **Excellent**

These are New World performances of the Ravel concertos. They are both energetic and passionate, with a strong feeling for the raffish, uneasy, surreal pop/jazz colorations that set this music apart. Accompanying the concertos are three small orchestrations of piano pieces by Ravel himself; brilliant orchestrator that he was, almost all of his orchestral music—the concertos excepted—was first written for piano. But these are of minor interest, actually detracting from the main business at hand: performances by Pascal Rogé and the Montreal orchestra under Charles Dutoit that are overwhelming in their dark energy. *E.S.*

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SCHUBERT: *Four Impromptus, Op. 90 (D. 899); Four Impromptus, Op. 142 (D. 935)*. Murray Perahia (piano). CBS ◉ IM 37291, © IMT 37291, no list price.

Performance: **Noble**
Recording: **Fine**

Perhaps even more than his superb record of the Beethoven Opp. 7 and 22 sonatas (CBS M 36695), Murray Perahia's performances of the Schubert Impromptus might lead one to think of him as the Arrau of his generation. I don't mean to suggest, of course, that his interpretation duplicates Arrau's, only that, like Arrau, Perahia shows in his presentation of this music a minimum of surface fuss—an almost "scrubbed-clean" effect that allows the exceptional inner illumination to shine through unobscured.

Here too is a balance of patrician and compassionate elements quite like Arrau's and a delicacy in the lyrical passages that one expects from a pianist who is devoted to Chopin as well as to Beethoven, Liszt, and Schumann. As a direct comparison with Arrau in the Op. 90 set (Philips 9500 641) will show, these shared characteristics do not obviate individuality on Perahia's part—but that individuality, again like Arrau's, never gets in Schubert's way.

I should hate to have to choose a single "best" recording of the Impromptus: Bar-enboim's is marvelous, and so is Brendel's more austere approach. And there are other interesting versions as well. None is more satisfying, however, than Perahia's, the noble persuasiveness of which is enhanced by the finely detailed, well-focused sound. *R.F.*

SHOSTAKOVICH: *Cello Concerto No. 1, Op. 107*. **KABALEVSKY: *Cello Concerto No. 1, Op. 49***. Yo-Yo Ma (cello); Philadelphia Orchestra, Eugene Ormandy cond. CBS ◉ IM 37840, © IMT 37840, no list price.

Performance: **Crackling**
Recording: **Just fine**

I am not enamored of either of these works, but I would be willing to sit and listen to Yo-Yo Ma play C Major scales all evening. The Shostakovich concerto, one of several works written by that composer for Rostropovich, is in fact a kind of minor masterpiece of the genre—one of a very few, I might add. Certainly it has stature in this superlative performance, in which cellist, conductor, and orchestra are all crackling good. Even Yo-Yo Ma could not make me love the Kabalevsky, but it will have its fans, and this performance and recording are first-rate. *E.S.*

RECORDING OF SPECIAL MERIT

STENHAMMAR: *String Quartets: No. 1, in C Major, Op. 2*. Fresk String Quartet. **No. 2, in C Minor, Op. 14**. Copenhagen String Quartet. **No. 3, in F Major, Op. 18; No. 4, in A Minor, Op. 25**. Gotland String Quartet. **No. 5, in C Major, Op. 29 ("Serenade"); No. 6, in D Minor, Op. 35**. Copenhagen String Quartet. CAPRICE CAP 1201/3 three discs \$28.50 (from In-

ternational Book & Record Distributors, 40-11 24th Street, Long Island City, N.Y. 11101).

Performance: **Superb**
Recording: **Very good**

Wilhelm Stenhammar (1871-1927) is perhaps the one Swedish composer whose stature approaches that of Grieg in Norway, Sibelius in Finland, and Carl Nielsen in Denmark. Approaches, but not quite equals, for although Stenhammar composed in all the major forms and genres, his output was neither as large nor as consistent in quality as those of his fellow Northern masters. The six string quartets strike me as catching the essence of Stenhammar's compositional career, tracing his course from an initial stylistic dependence on Schumann, Bruckner, and Wagner to an original amalgam—stimulated by the example of Sibelius—of the Swedish "national tone" with mainstream classicism.

Even the more or less derivative first three quartets contain no "bare" spots. They are consistently interesting in substance and effectively written for the string-quartet medium, with very little of the instrumental doubling characteristic of late-Romantic quartet composition. The impassioned and sometimes agitated Third, three years in the making, reflects Stenhammar's creative crisis at the turn of the century, and the Fourth, dedicated to Sibelius, marks his breakthrough to his own style.

Unquestionably the most immediately appealing of these works is the Fifth, the so-called *Serenade* Quartet. Its first movement has a Haydnesque transparency and vigor, and the second is a most amusing set of variations on a children's song about a knight errant. A virtuosic scherzo is followed by a finale redolent of Swedish folk fiddling. This and the Sixth Quartet typify a special and recognizable kind of Scandinavian classical-humanist musical language. Both this superb new Caprice set and earlier recordings have convinced me that the Stenhammar quartets, the last three especially, ought to be in the standard chamber-music repertoire—alternating, say, with the best of the Dvořák quartets.

This album is the first major issue in the Musica Sveciae series, a projected two-hundred-disc historical anthology of Swedish music. If the project as a whole measures up to this set, it should be a monumental artistic accomplishment. I especially like the producers' decision to use three different but equally brilliant and representative ensembles to perform the quartets. The Fresk Quartet is generally acknowledged to be the best in Sweden today, as is the Copenhagen Quartet in Denmark. The Gotland Quartet is the newest of the three, and in some respects its performances are the most vital. Although the recordings were done in three different locales, the sound in each case is just about ideal: intimate but with enough space to give a warm ambience.

I highly recommend this album not only to fans of Scandinavian music but to all who love fine string-quartet writing and playing enhanced by first-rate recorded sound. *D.H.*

STRAUSS: *Four Last Songs; Six Songs with Orchestra* (see *Best of the Month*, page 59)

RECORDING OF SPECIAL MERIT

VERDI: *Ernani*. Plácido Domingo (tenor), Ernani; Renato Bruson (baritone), Don Carlo; Nicolai Ghiaurov (bass), Don Ruy Gomez de Silva; Mirella Freni (soprano), Elvira; Jolanda Michieli (mezzo-soprano), Giovanna; Gianfranco Manganotti (tenor), Don Riccardo; Alfredo Giacomotti (bass), Jago. Orchestra and Chorus of La Scala, Milan, Riccardo Muti cond. ANGEL ◉ DSCX-3942 three discs \$39.98, © 4X3X-3942 three cassettes \$30.98.

Performance: **Vital**
Recording: **Rich and lively**

Ernani (1844) was the first Verdi opera to establish the composer's fame outside Italy. It is also the first of four operas for which he chose Spanish settings. If we must admit that *Ernani* is the weakest of the four, it is also true that *Il Trovatore*, *La forza del destino*, and *Don Carlo* are not an easy threesome to surpass.

Ernani's weakness, in any case, lies in cardboard characterizations, dubious motivations, and dramatic misjudgments arising from librettist Piave's drastic simplification of Victor Hugo's bulky play. The opera's melodic wealth is boundless, however, and though it has its share of commonplace episodes, it also has moments of passion and expressive eloquence rarely matched in pre-*Rigoletto* Verdi.

Angel's digital recording was made live with the distinguished cast that opened La Scala's 1982-1983 season. The producers somehow managed to exclude all applause except at the end of each act, and the performance is enthusiastic, rich-sounding, and admirably balanced. This may be Riccardo Muti's most successful Verdi recording to date—propulsive, excitingly paced, and as subtle as Verdi's writing permits. The orchestral tone is powerful but never crude, and the chorus, when not driven too hard, responds admirably to his direction.

The cast is strong but not perfect. Plácido Domingo portrays the hot-blooded, noble, but foolish hero with his customary vigor, honest involvement, and musical accuracy. (The omission of his first-act cabaletta is an act of excessive pedantry.) Mirella Freni, this time cast beyond her strength in the demanding role of Elvira, is never seriously disappointing but rarely exciting either. Renato Bruson's lyric baritone is also taxed by his assignment, but he manages his tonal resources wisely and even reaches impressive heights in his two big scenes in Act III. Nicolai Ghiaurov needs all his dramatic authority to balance his fraying tones.

I recommend this new recording, but I am not sure that, overall, it surpasses its impressive predecessor on RCA. Muti is more idiomatic than RCA's Thomas Schippers, but the RCA cast is also strong. Angel wins in the recorded-sound department, however. *G.J.*

(Continued on page 76)

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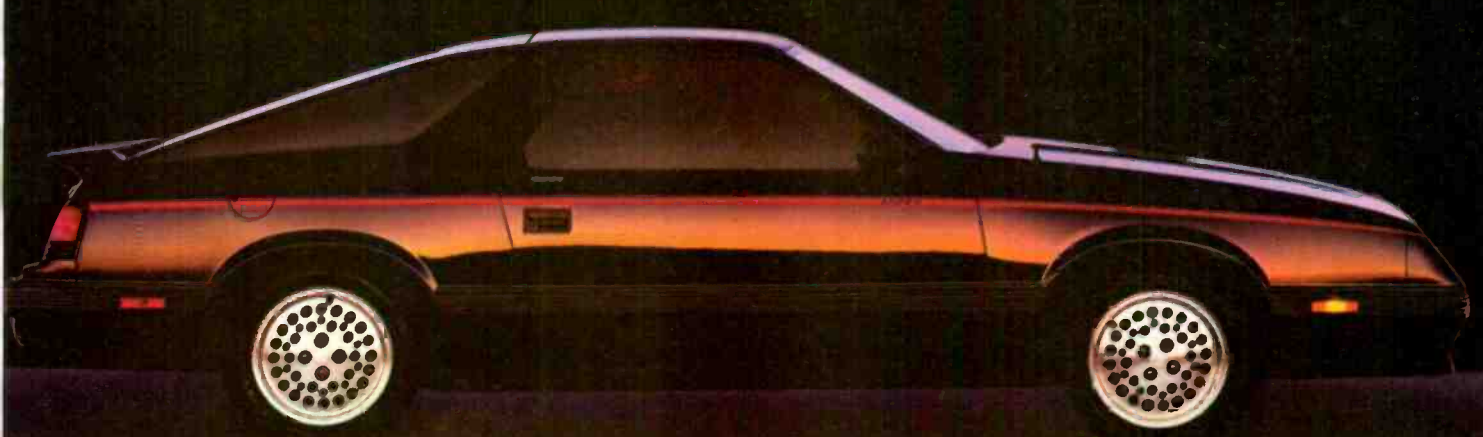
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Barenboim's Wagner

DANIEL BARENBOIM'S recent Deutsche Grammophon album of Wagner overtures and preludes strikes me as altogether fetching, both interpretively and sonically, and it includes a little bonus that might alone make it indispensable to novelty seekers. *La Descente de la Courtille* is a four-minute choral setting of verses (possibly by Marion Dumersan) about pre-Lenten carnival revelry in a "Bohemian" section of Paris. It was composed in that city in 1840 and has not been recorded before. It is a charmer for sure, and it might replace the overture to *Das Liebesverbot* in musical guessing games, for no one would suspect Wagner as the composer. Berlioz, perhaps, or even Chabrier, or possibly Offenbach or Rossini—but Wagner?

Barenboim's performances, with the Orchestre de Paris, of the weightier familiar pieces are altogether distinguished. They might remind us, perhaps, of his admiration for Furtwängler, but they never suggest anything like mere imitation of anybody. The two preludes and the *Liebested* from *Tristan und Isolde* are especially persuasive. The readings are on a level that is probably attainable only by a conductor who knows the opera thoroughly from experience with it in the theater (Barenboim conducted it at the Bayreuth Festival in 1981). The *Dutchman* and *Meistersinger* overtures are no less impressive in their (aptly) different ways. In all this music, Barenboim's tempos and phrasing seem uncalculatedly right, and the orchestra does him proud.

A most enjoyable release in every respect, and the little choral piece is a delightful discovery. It is accompanied by a period illustration as well as text and translation.

—Richard Freed

WAGNER: *Tristan und Isolde: Prelude to Act I; Liebested; Prelude to Act III. Der fliegende Holländer: Overture. Die*



Leederer/Deutsche Grammophon

Meistersinger: Prelude to Act I. La Descente de la Courtille. Chorus of the Orchestre de Paris (in *La Descente* only); Orchestre de Paris, Daniel Barenboim cond. DEUTSCHE GRAMMOPHON 2532 086 \$11.98, © 3302 086 \$11.98.



WAGNER composed at the keyboard, and, in spite of his brilliant achievements in orchestration, his music always sounds good on the piano. And it sounds especially good the way Daniel Barenboim plays it.

The piano was, of course, at one time the mainstay of every musical home. It was the means by which the average person familiarized himself with works that could only occasionally be heard live, and it could provide an evening's entertainment. Piano arrangements of everything under the sun were standard fare—from simple, straightforward transcriptions primarily for home use to florid variations and showy fantasias meant for the salon or concert hall. Not much of this

tremendous output is taken seriously any more, but there has recently been an upsurge of interest in the arrangements by the master transcriber of them all, Franz Liszt.

Many of Liszt's best-known works in this genre are really original pieces on familiar themes. Since he was close to Wagner, one might expect some special insights in his arrangements of the music dramas. In fact, with the limited exception of the fantasy on themes from *Rienzi*, Liszt's Wagner is very straight. He was using his name and his skill to help present Wagner's work to a public that could only very rarely hear the real thing, and then mostly in mediocre performances.

But even where he is playing it comparatively straight, Liszt, like any good artist, translates into the medium at hand. Neat little pianistic touches are everywhere, not to show off the pianist but to enhance the music and make it work. Barenboim takes the same approach. While he almost makes you think these pieces are piano ballades, he works exclusively for the music. He is direct and eloquent, and the piano sound is first-rate. You may not "need" this record, but it offers a special and engrossing musical experience.

—Eric Salzman

WAGNER (arr. Liszt): *Tannhäuser: Entry of the Guests. Der fliegende Holländer: Spinning Chorus; Ballade. Lohengrin: Elsa's Dream and Lohengrin's Rebuke. Tristan und Isolde: Liebested. Fantasy on Themes from Rienzi.* Daniel Barenboim (piano). DEUTSCHE GRAMMOPHON 2532 100 \$11.98, © 3302 100 \$11.98.

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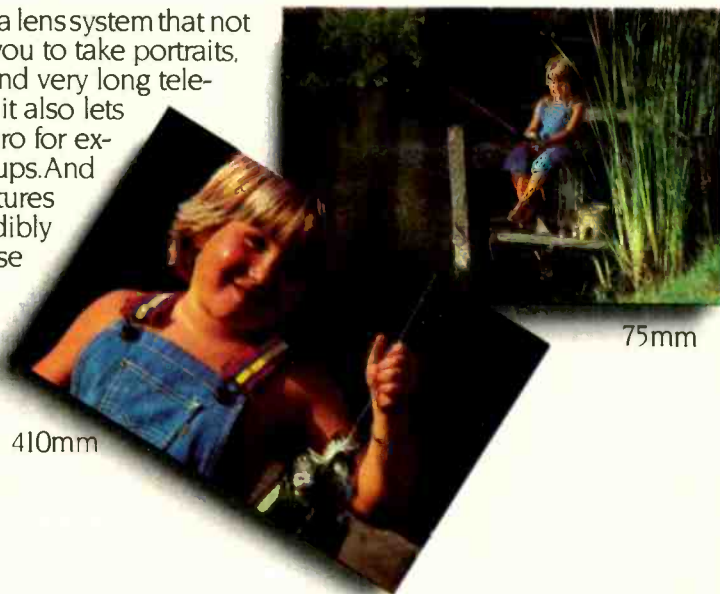
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WEILL: *Recordare (Lamentations of Jeremiah), Op. 11.* **DALLAPICCOLA: *Canti di prigionia.*** Tanglewood Festival Chorus (with instrumental accompaniment in the Dallapiccola), John Oliver cond. NONESUCH © 79050-1 \$11.98, © 79050-4 \$11.98; © 79050-2, no list price.

Performance: **Very good**
Recording: **Very good**

In the extensive and highly informative annotation to this album, musicologist Kim H. Kowalke examines the overlapping rather than parallel careers of Kurt Weill (1900-1950) and Luigi Dallapiccola (1904-1975) and illuminates the "striking but inverted parallels" in their work. Weill's relatively brief artistic life was divided into several stages. *Recordare*, an *a cappella* motet, dates from 1923, the early period of the composer's studies with Ferruccio Busoni and Phillip Jarnach. It is hard to find the composer who was to write *The Threepenny Opera*, let alone *Street Scene*, in this austere, atonal, and contrapuntally complex music.

Unlike Weill, Dallapiccola tended to dismiss his youthful compositions. *Canti di prigionia* (1939) is therefore fairly characteristic of his mature style, which used twelve-tone composition but with a flexible combination of tonal and atonal elements unfettered by the rigors of the Schoenbergian school. The performances are extraordinary. Dallapiccola's writing taxes the sopranos considerably, and the instrumentation—two pianos, two harps, and eight percussion—combined with hall resonance limits the text's intelligibility. But conductor John Oliver communicates these two works with remarkable precision, clear textures, and an admirable range of dynamics. *G.J.*

COLLECTIONS

EVA MARTON: *The 1971-1977 Recordings.* **Verdi: *La forza del destino: Scenes from Act II*** (with György Bordás, baritone, and Kolos Kováts, bass). **Mendelssohn: *A Midsummer Night's Dream: Bunte Schlangen*** (with Marta Szirmay, contralto). **Liszt: *The Legend of St. Elisabeth: Prayer.*** **Brahms: *A German Requiem: Ihr habt nun Traurigkeit.*** **Wagner: *Tristan und Isolde: Liebestod.*** Eva Marton (soprano); Hungarian Radio and Television Chorus; various orchestras, András Kórodi, György Lehel, and Ervin Lukacs cond. HUNGAROTON SLPX 12454 \$9.98, © MC 12454 \$9.98.

Performance: **Good to very good**
Recording: **Very good**

Taking a cue from Eva Marton's rise to international prominence, Hungaroton treats us here to a group of interesting recordings and broadcasts from the soprano's early years as a young member of the Hungarian State Opera. The program is something of a miscellany, but it reveals the original dramatic potential of an artist who has since proven herself as an Empress (*Frau ohne Schatten*), Elsa, Gioconda, and Turandot of world renown.

Marton's timbre is not one of total evenness and rounded perfection. There is a metallic edge to it and a vibrato that is occasionally looser than it ought to be,

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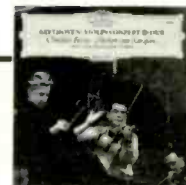
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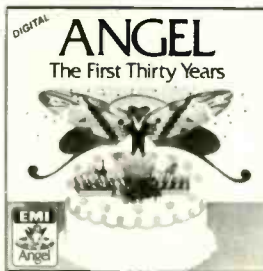


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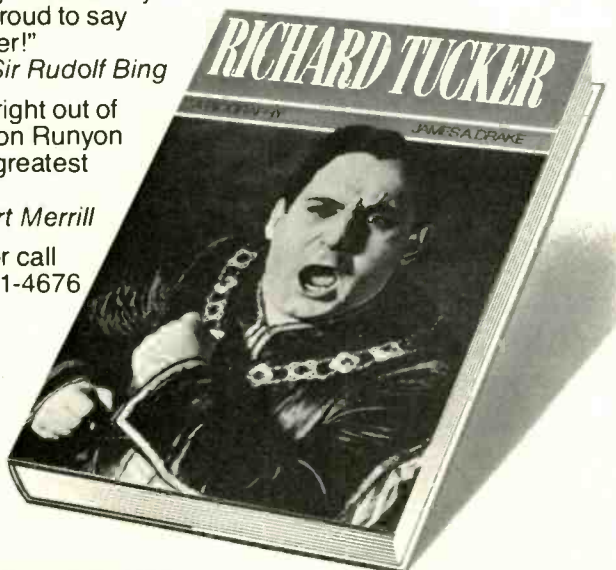
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but she is a highly dramatic and exciting singer who sails into her music with a boldness that is in itself imposing. Whether in the expansive Verdian cantilena of Leonora's "Deh, non abbandonar" or in the soaring phrases of the Brahms German Requiem, she ascends above the staff with a combination of assurance and accuracy that is rare today. She also brings a surprising amount of passion to the rather benign Liszt aria. The orchestral performances are generally fine, the recorded sound good. G.J.

RECORDING OF SPECIAL MERIT

OPENING NIGHTS AT THE NEW MET. Barber: *Antony and Cleopatra*: Give Me My Robe. Leontyne Price (soprano); New Philharmonia Orchestra, Thomas Schippers cond. Cilèa: *Adriana Lecouvreur*: *L'anima ho stanca*. Plácido Domingo (tenor); New Philharmonia Orchestra, Nello Santi cond. Verdi: *La Traviata*: *Follie! Follie! Sempre libera*. Montserrat Caballé (soprano); Carlo Bergonzi (tenor); RCA Italiana Opera Orchestra, Georges Prêtre cond. *Aida*: *O patria mia*. Leontyne Price (soprano); Rome Opera House Orchestra, Oliviero de Fabritiis cond. *Ernani*: *Mercè, diletti amici*; *Come rugiada*. Carlo Bergonzi (tenor); RCA Italiana Opera Orchestra, Thomas Schippers cond. *Don Carlo*: *È lui! desso! l'Infante!*; *Dio, che nell'alma infondere*. Plácido Domingo (tenor); Sherrill Milnes (baritone); London Symphony Orchestra, Anton Guadagno cond. *Il Trovatore*: *Ah si, ben mio*; *Di quella pira*. Leontyne Price (soprano); Plácido Domingo (tenor); Ryland Davies (tenor); Ambrosian Opera Chorus; New Philharmonia Orchestra, Zubin Mehta cond. *I Vespri Siciliani*: *Overture*. Metropolitan Opera Orchestra, James Levine cond. *Otello*: *Ah! mille vite*; *Si, pel ciel marmoreo giuro!* Plácido Domingo (tenor); Sherrill Milnes (baritone); National Philharmonic Orchestra, James Levine cond. RCA ARL1-4856 \$9.98, © ARK1-4856 \$9.98.

Performance: **Good to excellent**
Recording: **Good**

This is a welcome complement to RCA's famous three-disc "Opening Nights at the Met," released in 1966, eventually withdrawn, and now reissued for the Met's centennial as AGM3-4805. (Grab that reissue while you can, for goodies of this kind don't stay in the catalog very long!) The new collection documents nine opening nights between 1966 and 1979, skipping those that RCA could not illustrate from its own catalog. Just the same, those other opening nights did take place and should have been commented on in the liner notes.

The starry list above speaks for itself. All of these eminences are captured at or near their top form, and though I have a few minor quibbles, I am not going to detract from what is indeed a deluxe release. I will note, however, that all the selections contained here are available on other RCA discs. The "digitally remastered" sound seems somewhat blander and more distant than some of the originals, but this too is a quibble. You cannot go wrong with this release. G.J.

STEREO REVIEW

Popular Music

DISCS AND TAPES
REVIEWED BY
CHRIS ALBERTSON
PHYL GARLAND
ALANNA NASH
MARK PEEL
PETER REILLY
STEVE SIMELS
JOEL VANCE

ABC: *Beauty Stab*. ABC (vocals and instrumentals). *That Was Then but This Is Now*; *Love's a Dangerous Language*; *If I Ever Thought You'd Be Lonely*; *The Power of Persuasion*; and eight others. MERCURY 814 661-1 \$8.98, © 814 661-4 \$8.98; © 80146 612, no list price.

Performance: **Stingy**
Recording: **Good**

ABC's debut, "Lexicon of Love," wedded kid-glove strings and a tails-and-top-hat disco beat to a romantic posture that was all moonlight and shattered crystal. Their second album finds them on an austerity budget: the strings have been largely replaced by guitars, the debonair wordplay by blunt one-liners, the gay pace by a heavier, less playful beat. Even Martin Fry's vocals are stingy—there's less vibrato, less melodrama, less emoting. It's like the difference between a Parisian cabaret and a Brooklyn social club. Trouble is, ABC *belongs* back in that cabaret. They're glamour boys, not punks or roughnecks. And they wouldn't last a minute in Brooklyn. *M.P.*

RECORDING OF SPECIAL MERIT

BIG DADDY. Marty Kaniger, Tom Lee (vocals, guitars); David Starns (vocals, guitar, keyboards); Bob Wayne (vocals, keyboards); Gary Hoffman (vocals, drums). *I Write the Songs*; *You Don't Bring Me Flowers*; *Bette Davis Eyes*; *Ebo-*

Explanation of symbols:

- Ⓛ = digital-master analog LP
- Ⓢ = stereo cassette
- Ⓣ = digital Compact Disc
- Ⓢ = eight-track stereo cartridge
- Ⓛ = direct-to-disc recording
- Ⓜ = monophonic recording

ny and Ivory: Super Freak; Star Wars; and six others. RHINO RNLP 852 \$8.98 (from Rhino Records, 1201 Olympic Boulevard, Santa Monica, Calif. 90404).

Performance: **Excellent**
Recording: **Excellent**

Satirical albums are rare enough in rock, and this one is not only very funny but

Shannon. Every Fifties doo-wop cliché is lavished on *You Don't Bring Me Flowers*, exposing the song's pompous, fatheaded mediocrity. Possibly the most hilarious burlesque is of *Super Freak*, which is sung as a whining, innocent ballad.

Cheers for the musicians, for the concept, for Rhino Records, and for the wonderful cover. *J.V.*



Angela Bofill:
a skilled
"Teaser"

deadly accurate. The premise is conveyed by the album cover, which parodies the front page of a sleazy tabloid newspaper. The lead story is about a band on a USO tour in 1959 that was captured by Communists and held in captivity for twenty-four years. Now back in the United States, they are given sheet music by the State Department so that they can play current popular songs.

The result is the richly deserved skewering of a dozen modern tunes, many of which deserve euthanasia. *I Write the Songs* is cheerfully destroyed with a triple layer of stylistic anachronisms from the Marcells (*Blue Moon*), Danny and the Juniors (*At the Hop*), and the Monotones (*Book of Love*). The *Star Wars* theme is done as a Duane Eddy/Ventures-type instrumental, revealing just how weak a concoction it is without a full symphony orchestra playing it. *Hotel California* is treated as if it were *Runaway* sung by Del

ANGELA BOFILL: *Teaser*. Angela Bofill (vocals); vocal and instrumental accompaniment. *Call of the Wild*; *Nothin' But a Teaser*; *Still a Thrill*; *Crazy for Him*; *Penetration*; and four others. ARISTA AL8 8198 \$8.98, © AC8-8198 \$8.98.

Performance: **Very good**
Recording: **Excellent**

Angela Bofill has grown from a teenage sexpot into an adult sexpot right before our very ears. She has, in the process, become a much more skilled performer without losing any of her natural fiery attack and superb rhythmic sense. She's in fine form here, racing from track to track, making perhaps her best efforts and effects in *Nothin' But a Teaser*. Much of the credit for the sustained excitement level must go to producer Narada Michael Walden. The by-now compulsory duet with another pop star is *You're a Special Part of Me* with Johnny Mathis. *P.R.* ▶



Blue Öyster Cult

WHEN Blue Öyster Cult finally hangs up its amps, axes, and black leather, heavy-metal may as well pack its bags and head for a Miami retirement home. "The Revolution by Night" is another lesson in how to rock a person to his knees—a descent into Hell on the fretboard of the Mephistopheles of rock, Donald "Buck Dharma" Roeser, pursued by the most fearsome pack of hellhounds ever to blow an amplifier.

From the opening bars of *Take Me Away*, a great, arched, granite vault of electric guitar, to the last decaying chord of *Light Years of Love*, "The Revolution by Night" is unrelenting, high-voltage,

nocturnal myth-making. While one more Blue Öyster Cult album—even a good one—may seem redundant at this point, we'll always need this band as the benchmark for what works and what doesn't in heavy-metal. This one works.

—Mark Peel

BLUE ÖYSTER CULT: *The Revolution by Night*. Blue Öyster Cult (vocals and instrumentals); instrumental accompaniment. *Take Me Away; Eyes on Fire; Shooting Shark; Veins; Shadow of California; Feel the Thunder; Let Go; Dragon Lady; Light Years of Love.* COLUMBIA FC 38947, © FCT 38947, no list price.

JIMMY BUFFETT: *One Particular Harbour*. Jimmy Buffett (vocals, guitar); vocal and instrumental accompaniment. *Stars on the Water; I Used to Have Money One Time; Livin' It Up; Why You Wanna Hurt My Heart; California Promises; Twelve Volt Man;* and five others. MCA MCA-5447 \$8.98, © MCAC-5447 \$8.98.

Performance: **The usual**
Recording: **Good**

And here's another of Jimmy Buffett's humorous, laid-back albums celebrating the gilded-beachcomber life. This time he's into a vaguely South Seas bag, particularly in the title song, half of which is performed in English, the other half in what sounds like early Dorothy Lamour Hawaiian. As Buffett's affluence has increased over the years, the sharp, cutting edge of his material has dulled into a sort of funky whimsy. *We Are the People Our Parents Warned Us About*, for instance, verges on the cloying. For no known reason he has included a performance of Van Morrison's *Brown-Eyed Girl*.

Among all those Buffett songs, it comes as something of a relief.

P.R.

KAREN AND RICHARD CARPENTER: *Voice of the Heart*. Karen Carpenter (vocals, drums); Richard Carpenter (vocals, piano); vocal and instrumental accompaniment. *Make Believe It's Your First Time; Ordinary Fool; Two Lives; You're Enough; Now; Look to Your Dreams;* and four others. A&M SP-4954 \$8.98, © CS-4954 \$8.98.

Performance: **Good, but . . .**
Recording: **Good**

Karen Carpenter's tragic death early last year makes this release in questionable taste even with the grieving note on the back cover by her brother Richard. Many of these tracks were recorded in the last year of her life, a time when she must have realized that she was losing her battle against herself as a victim of *anorexia nervosa*. I don't care who you are, you are going to listen with half an ear for indications of her physical condition. Karen Carpenter was a good but unsensational

pop singer with a squeaky-clean public image. I prefer to leave it at that. P.R.

JOHN DENVER: *It's About Time*. John Denver (vocals); instrumental accompaniment. *Hold On Tightly; Wild Montana Skies; I Remember Romance; World Game;* and six others. RCA ○ AKC1-4740 \$12.98, © AKK1-4740 \$12.98; AFL1-4683 \$8.98, © AFK1-4683 \$8.98.

Performance: **No change**
Recording: **Good**

Here's John Denver in another of his plaintive recitals. This time he's grappling with both the cosmic and the personal. An ardent admirer of the late Buckminster Fuller and his philosophy, Denver attempts to get global with such things as *World Game* and the surely soon-to-be-immortal *It's About Time*, which has the galvanic opening line, "There's a full moon over India and Gandhi lives again. . . ." Fortunately the mood picks up a bit when Denver returns to his speciality, the folk-inflected ballad. He has two good ones here, the charming *I Remember Romance* and the wistful *Falling Out of Love*. I've never really understood Denver's enormous popularity, but I know that if you like his other albums, you'll like this one.

"It's About Time," incidentally, is available in either digital or analog versions, with, as noted above, a four-dollar price differential.

P.R.

EURHYTHMICS: *Touch*. Eurhythmics (vocals and instrumentals). *Here Comes the Rain Again; Regrets; Right by Your Side; Cool Blue; Who's That Girl?;* and four others. RCA PL 70109 \$8.98, © PK 70109 \$8.98; © PDC-1-4917, no list price.

Performance: **Remorse in rhythm**
Recording: **First-rate**

It's a bit ironic that Dave Stewart and Ann Lennox, who have made a virtually perfect marriage between high-tech electronics and icy soulfulness, deal so much with failed love. "Touch" is largely an exposition of the vulnerability attached to love and its damaging consequences. Although there are a few cheerful moments—the jumping, Caribbean-flavored *Right by Your Side*, for instance—most of "Touch" has a dark cast, at least lyrically. Lest I give the wrong impression, however, the album is not a downer; it pops with clean, percolating synthesizer rhythms and reverberates with dub guitar and thumb-slapping funk bass. There is no single here with the tug of *Sweet Dreams Are Made of This*, but the pull of Ann Lennox's vocals are still as strong as ever, one moment drawing you close with a seductive whisper, then striking out with a snarl, like a stinging remark. When she coolly informs us, "I have a delicate mind, I've got a dangerous nature, and my fist collides with your furniture," you feel the impact. Stewart's arrangements are smooth and danceable, while his guitar work provides a prickly, abrasive counterpoint. Heartbreak should always be so entertaining.

M.P.

DON FELDER: *Airborne*. Don Felder (vocals, guitars); vocal and instrumental

accompaniment. *Bad Girls; Winners; Haywire; Never Surrender; Night Owl;* and three others. ASYLUM 60295-1 \$8.98, © 60295-4 \$8.98.

Performance: **Grandiose**
Recording: **Excellent**

When the Eagles split up a couple of years back, it was inevitable that each of the members would put out his own solo LP. Just what kind of music each of those albums would embrace was almost as predictable, and former Eagles guitarist Don Felder, with his solo LP, has delivered as expected.

Stylistically, Felder's album doesn't really resemble any of the other ex-Eagles' solo albums. Mainly what we have here is, if not a wall of sound, at least a bowl of it. From the opening bars of *Bad Girls*, where tinkling bells rush back and forth between stereo channels, the signs are that Felder is more concerned with style, or in this case, flash, than with substance. Fuzzy guitar synthesizers abound on nearly every cut, as do famous sidemen, including drummers Joe Vitale, Russ Kunkel, and Joe Lala (who contribute a virtual arsenal of percussion), horn men Jim Pankow and Lee Loughnane, and vocalists Dave Mason, Kenny Loggins, and ex-Eagle Timothy B. Schmit.

Most of the lyrics of Felder's original songs are buried beneath this great mountain of sound, but what you do hear is not the voice of one man making a solo statement but a team of voices joining to-

gether, like a group or . . . like the Eagles. As a songwriter with his former group, Felder was always a collaborator, and without Frey and Henley here to help him, he falls somewhat short in the writing department. Just the same, *Bad Girls* and *Haywire* have a certain arresting, if familiar, ring (*Haywire*, in particular, sounds like snatches of any number of Eagles tunes), but in the end there is not one enchanting melody to be found.

There is mood—layers and layers of attitude and mood—but the album as a whole is diffused and unfocused. If Felder is indeed "Airborne," it appears to be over musical no-man's land. A.N.

RECORDING OF SPECIAL MERIT

GENESIS. Genesis (vocals and instrumentals). *Mama; That's All; Home by the Sea; Illegal Alien;* and five others. ATLANTIC 80116-1 \$8.98, © 80116-4 \$8.98; © 80116-2, no list price.

Performance: **Spirited, emotional**
Recording: **Good**

Although its shoddy packaging suggests the fulfillment of a contractual obligation, "Genesis" is anything but perfunctory. There are at least four bona fide Genesis masterpieces here: *Mama*, the opening track, a collision of gothic organ chords, machine-like drumming, and Phil Collins's guttural vocals, an evocation of sweat and dust and unsatisfied desire; *That's All*, the very antithesis of

Mama, consonant, catchy, eminently hummable; *Home by the Sea*, as eerie a tale as any by Poe; and *Taking It All Too Hard*, classic Phil Collins balladry, a pretty tune turned razor sharp by the pain it conveys. Peopled with a host of out-of-the-ordinary characters—poltergeists, illegal aliens, paid killers—"Genesis" is still essentially an album of straightforward music from a band that seems to get better with the years. M.P.

ROBIN GIBB: *How Old Are You?* Robin Gibb (vocals); vocal and instrumental accompaniment. *Juliet; Danger; I Believe in Miracles; Hearts on Fire; Kathy's Gone;* and five others. POLYGRAM 810 896-1 \$8.98, © 810 896-4 \$8.98.

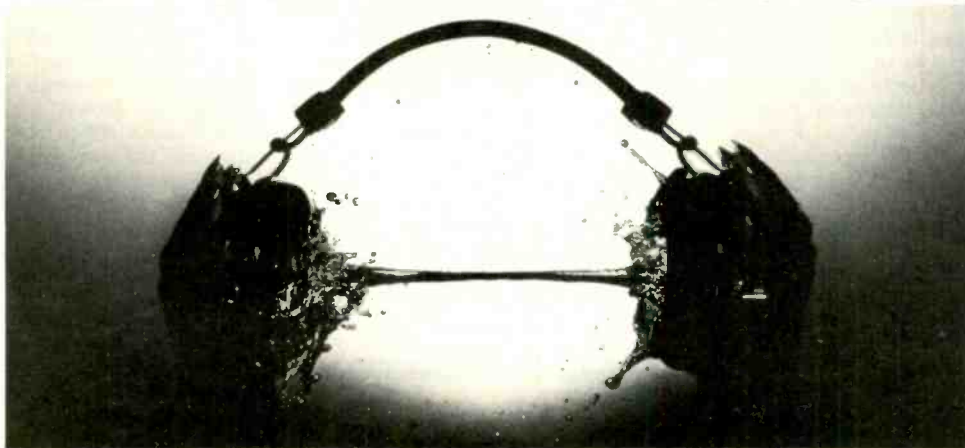
Performance: **Okay**
Recording: **Good**

Robin Gibb (of *les frères Gibb*) is featured here in a solo album of songs he wrote with his brother Maurice. Most of the material is just a cut or two above Teenybopper Sentimental. Gibb's vocals are pleasant enough, but his delivery has all the excitement of a rubber ducky afloat in a saucer. *Kathy's Gone*, although superficially just another weeper, does have its heartfelt moments in which Gibb displays a certain appealing sincerity. Otherwise this is a dim, lackluster, overproduced album. P.R.

EMMYLOU HARRIS: *White Shoes* (see Best of the Month, page 61)

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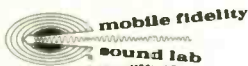
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The Remarkable Johnny Cash

IF there is any justice in Hillbilly Heaven, Johnny Cash's new Columbia album, "Johnny 99," will be a bigger boon to his career than *A Boy Named Sue*, "Rockabilly Blues," and his marriage to June Carter all rolled into one. Produced by Brian Ahern, the album jolts Cash out of his passive, elder-statesman pose and presents him as a vibrant and revitalized musician, one who may not exactly be on the cutting edge of what's happening in today's country music but is nevertheless more aware than most of what should and should *not* be propelling the music forward. The overall effect is of a giant awakening from a big sleep, or perhaps the big sleep. At times, especially on Bruce Springsteen's *Highway Patrolman*, Cash fills the songs with an eerie vocal quality, his bass-baritone sounding more subtle and subdued than usual, like that of a man who has seen beyond this world.

The idea of Cash singing Springsteen

may jar the senses, but it takes only one listening to both Springsteen cuts here (the other is the title track) to realize what natural choices they are. "Johnny 99" is a treasure trove of remarkable material, much of it new to my ears and to the way I think of John R. Cash, especially a spicy little hors d'oeuvre called *That's the Truth*. For those who prefer the tried-and-true, red-white-and-blue Cash, however, there's also a nice reworking of *I'm Ragged but I'm Right*, a not-too-cloying thing about pathetic old Robert E. Lee, and a gently swaying duet with June Carter, *Brand New Dance*, written by England's Paul Kennerley.

Cash could still have turned in a routine album with the same fine material, but Ahern seized the opportunity to do something special. He not only got Cash to sing on key throughout, but on *I'm Ragged but I'm Right* Big John's Grand Canyon voice is so lissomely agile that it dips and bends around the melody and even does a musical hang-glide occasionally. On the whole, the mostly acoustic backing—by legendary guitarist James Burton, Cash's young friend Marty Stuart on guitar and mandolin, drummer Hal Blaine, and keyboardist Glen D. Hardin—is properly spare, and the signature ticky-tack guitar takes a well-earned rest most of the time. Where Ahern really shines as a producer, though, is in the small, finishing touches that help set off this album as a one-in-a-million effort, touches like Norton Buffalo's elegiac harmonica playing and Hoyt Axton's scary, voice-of-God low whisper darting in and out of *Joshua Gone Barbados*.

I can't remember a more pleasant surprise than this album. It's an elegant, exquisite testament to the staying power—and growth—of one of country music's genuine legends. If I were going to buy only a few Johnny Cash albums for my collection, this surely would be one of them.

—Alanna Nash

JOHNNY CASH: *Johnny 99*. Johnny Cash (vocals); vocal and instrumental accompaniment. *Highway Patrolman*; *That's the Truth*; *God Bless Robert E. Lee*; *New Cut Road*; *Johnny 99*; *Ballad of the Ark*; *Joshua Gone Barbados*; *Girl from the Canyon*; *Brand New Dance*; *I'm Ragged but I'm Right*. COLUMBIA FC 38696, © FCT 38696, no list price.

some will hail them as punk-country, but what they're doing is actually in a direct line from Gram Parson's Flying Burrito Brothers—they're a raggedy, emotionally compelling country-rock outfit fronted by a singer (Jason Ringenberg) whose vocal chops are not extraordinary but who sings every note as if his life depended on it. Michael Stipe of R.E.M. shows up on background harmonies, which should give you some idea of the band's approach: this is spooky, guilt-ridden stuff, and despite the Seventies guitar licks, the music seems timeless in a peculiarly backwoods way. These guys also know

how to rock out (check *Both Sides of the Line*). Highly recommended, especially to people who've worn out their copies of "The Gilded Palace of Sin." S.S.

TOM JONES: *Don't Let Our Dreams Die Young*. Tom Jones (vocals); vocal and instrumental accompaniment. *You've Got a Right*; *I've Been Rained On Too*; *You Are No Angel*; *This Time*; *That Old Piano*; and five others. MERCURY 814 448-1 \$8.98, © 814 448-4 \$8.98.

Performance: **For his fans**

Recording: **Good**

Tom Jones is now a grandfather, and I think it would be safe to say that most of his fans are now grandmothers. I am sure they will be pleased with his new album, in which he sings his usual collection of mediocre songs in such a c-&-w manner that he makes Dolly Parton sound like Katharine Hepburn. Also as usual, he slaps on the intensity with a trowel, ignores the direct meanings of the lyrics, and employs enough control-room aid to make Boniface, the Singing Mouse, sound like Luciano Pavarotti. Well, if that's what the fans want, who am I to deny them? P.R.

CYNDI LAUPER: *She's So Unusual*. Cyndi Lauper (vocals); vocal and instrumental accompaniment. *Money Changes Everything*; *Girls Just Want to Have Fun*; *When You Were Mine*; *Time After Time*; and five others. PORTRAIT BFR 38930, © BRT 38930, no list price.

Performance: **Has its moments**

Recording: **Big**

I wish this were a little better than it is. Cyndi Lauper, a prototypical New Wave tootsie who might well be the Real Debbie Harry, has an astonishing voice, sort of a cross between Ronnie Spector and Birgit Nilsson, and when she has the right material to work with she's devastating. In "She's So Unusual" she covers two of the better rock songs of recent vintage, the Brains' *Money Changes Everything* and Prince's *When You Were Mine*, and she sings the very pants off them; in fact, she more or less erases memories of the originals. The rest of the album, though, works a little too hard at sounding modern, with the notable exception of *Girls Just Want to Have Fun*, whose overlay of Eighties irony can not conceal a solid Brill Building sensibility. If this were an EP I could recommend it unreservedly (it's stunningly recorded, by the way), but, as it stands, let's just say that Lauper is worth hearing. S.S.

RECORDING OF SPECIAL MERIT

JASON AND THE NASHVILLE SCORCHERS: *Fervor*. Jason and the Nashville Scorchers (vocals and instrumentals). *Hot Nights in Georgia*; *Pray for Me, Mama (I'm a Gypsy Now)*; *I Can't Help Myself*; and three others. PRAXIS PR 6654 \$5.98 (from Praxis Records, P.O. Box 120235, Nashville, Tenn. 37212).

Performance: **Compelling**

Recording: **Good**

A very interesting little record. The band is slightly raw sounding, and I suppose

RECORDING OF SPECIAL MERIT

REBA McENTIRE: *Behind the Scene*. Reba McEntire (vocals); vocal and instrumental accompaniment. *Love Isn't Love ('Til You Give It Away)*; *Is It Really Love*; *Reasons*; *You Really Better Love Me After This*; and six others. MERCURY 812 781-1 \$8.98, © 812 781-4 \$8.98.

Performance: **Snappy**

Recording: **Very good**

Reba McEntire strikes me as the kind of ol' gal who'd come after you with an iron

skillet if you got her dander up good. That means I like her. In an era when singers such as Crystal Gayle try to sound like the Upper East Side instead of Butcher Holler, McEntire stretches her words out in hard, Okie style, proud of who she is and where she comes from.

Long thought of as an "also ran" in country music, McEntire has made enormous strides in her career of late, and the proof is in "Behind the Scene." The material, mostly ballads and assertive up-tempo tunes about a woman's plight in love, is thoroughly country, except, perhaps, the spunky, Steve Forbert-like *Why Do We Want (What We Know We Can't Have)*, and it's thoroughly smart, with none of those stomach-turning pseudo-country titles. Best of all, McEntire sounds as if she's lived it, and she isn't ashamed to lay her emotions on the line, treating the material with respect. This album ought to do it for her, and for traditional country fans too. *A.N.*

MELISSA MANCHESTER: *Emergency*. Melissa Manchester (vocals); vocal and instrumental accompaniment. *Johnny and Mary; City Nights; That Boy; Stop Another Heart Breakin'; Time*; and five others. ARISTA AL8 8094 \$8.98, © AC8 8094 \$8.98.

Performance: **Fully emerged**
Recording: **Very good**

Melissa Manchester quit Bette Midler's back-up group, the Harlettes, ten years

ago and decided to go on her own. Her former boss is still effectively straddling the fence between yesterday and today, but Manchester is right on top of the current trend. "Emergency," the title of her new Arista album, plays on the words of one of the song titles, *Emergence and See*, appropriately because it finds the one-time long-haired singer of sweet songs exploring today's pop sounds and riding the new wave in a Eurythmic way, right down to the leather outfit she wears on the cover. The accompaniments are high-tech, and Melissa Manchester makes the transformation very successfully. *C.A.*

WILLIE NELSON: *Without a Song*. Willie Nelson (vocals, guitar); orchestra. *Harbor Lights; Autumn Leaves; A Dreamer's Holiday; To Each His Own*; and six others. COLUMBIA FC 39110, © FCT 39110, no list price.

Performance: **Good**
Recording: **Soft-center**

Listening to Willie Nelson is like absent-mindedly devouring a whole bag of M&M's while you're doing something else. It's only after you've polished off the last one that you realize you only wanted a couple in the first place and that the sickly sweet aftertaste will take a while to get rid of. After one or two tracks of this album, though, I realized that I'd had enough for a while. Later I played a few cuts from the other side. It works. In small doses Nelson is a singer of much

charm and sincerity; in large ones he leaves too much of that saccharine after-taste. The soft-center production and arrangements here don't help much. And neither does Julio Iglesias, who turns up to add an oddly Spanish flavor to a caramelized *As Time Goes By*. *P.R.*

JUICE NEWTON: *Dirty Looks*. Juice Newton (vocals); instrumental accompaniment. *Dirty Looks; Tell Her No; Keeping Me on My Toes; Twenty Years Ago; Stranger at My Door; Slipping Away*; and four others. CAPITOL ST-12294 \$8.98, © 4XT-12294 \$8.98.

Performance: **Mixed**
Recording: **Good**

I guess I'm the only person in the Northern Hemisphere who doesn't find Juice Newton's voice very interesting. There, I've said it, and I'm glad. The woman is lightweight and colorless. Just the same, I admit that she occasionally has a winning way with a song, even if most of her hits have been safe, pale reworkings of oldies-but-goodies.

A lot of Newton's new stuff here is tuneless and overproduced, if not outright dumb. "Some people die before their time," she sings, "and some never live at all/But I want to go like Sal Mineo/Or a rebel without a cause." What does that mean? That she wants to be stabbed in a parking lot by a pizza delivery boy? Or creamed in a Porsche by a man named *(Continued on page 87)*

Harman Kardon Explains High Current Capability

Typical amplifier specifications show FTC power ratings based on the continuous power that an amplifier can drive into a resistor, typically 8 Ohms, which is supposed to represent a loudspeaker load. But speakers do not act like simple resistors. The speaker's crossover network alone is made up of not only resistors, but capacitors and inductors as well. The impedance of the voice coil varies tremendously as it has to interact with magnetic fields as well as with the mass of speaker coil. And, while the impedance of an 8 Ohm resistor does not vary, a speaker's impedance and its current requirements are constantly in flux.

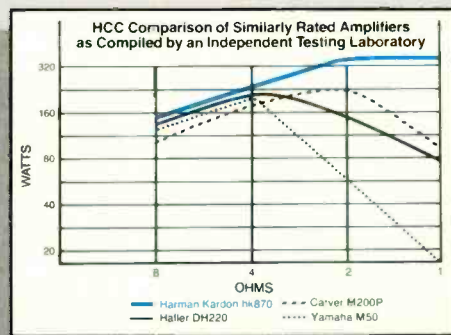
A low frequency transient... such as the beat of a kick drum... can make a nominally-rated 8 Ohm speaker instantaneously draw 6 times as much current as an 8 Ohm resistor. In other words, an 8 Ohm speaker's impedance can momentarily drop to 1/6th of its rating, or equal to 1.33 Ohms.

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Manfred Mann's Earth Band



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MANFRED MANN'S EARTH BAND is the consummate cover band, the archetype for every meat-and-potatoes outfit doing yeoman work in beach clubs and night spots from Long Island to Southern California. First it was Dylan, then Springsteen whose songs were given Mann's crowd-pleasing, hard-rock renderings—lots of scorching guitar work peeled off in big chunks and cloaked in a thick synthesized shroud. On the new "Somewhere in Afrika," the Police and Al Stewart get the treatment. And the results are good—heavy, but good. The album is more than just a sampler of today's heavy sounds, however. Its second side is an ambitious suite of hard rock fused with native African music, a study in oppression and revolt in Mann's birthplace, South Africa.

Weaving electronic and synthesized vocal and percussive effects, a driving

rock beat, and field and studio recordings of Zulu and Xhosa tribal music, Mann fashions a kind of Third World heavy-metal that is fresh and compelling. Much of its power comes from this clash of cultures. On *Tribal Statistics*, for instance, an icy, British, bureaucratic voice asks, "Who are you? Give details." The answer comes in a terrifying chorus of male voices: "Zulu. Xhosa. Sotho. Venda." The central, unifying image of *Tribal Statistics*, *Lalela*, Bob Marley's *Redemption Song*, and Mann's four-part *Africa Suite* is the Bantustan—the large, isolated, semi-autonomous South African states, much like American Indian reservations, that are set aside for the families of black laborers who work hundreds of miles away in the mines or as domestics or factory workers in the cities. The conditions these songs chronicle—families separated, enslaved, powerless—seem to lend

themselves to this music, which is at once angry and brutal.

"Somewhere in Afrika" is that rare work in which word and sound, idea and execution come together. Indeed, it's so consistently excellent that it may end Manfred Mann's career as a cover artist altogether.

—Mark Peel

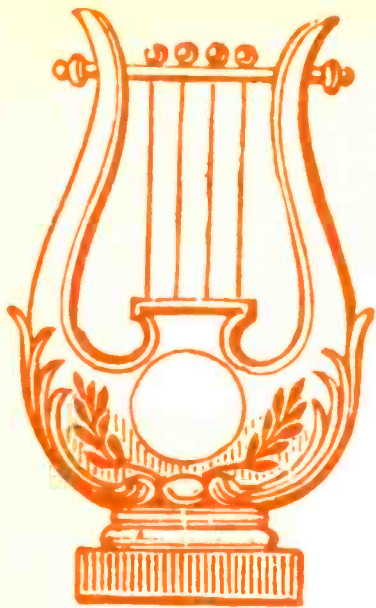
MANFRED MANN'S EARTH BAND: *Somewhere in Afrika*. Manfred Mann (keyboards); Steve Waller, Chris Thompson, Shona Laing (vocals); John Lingwood (drums, percussion); Matt Irving (bass, guitar). *Demolition Man; Runner; Rebel; Eyes of Nostradamus; Third World Service; Somewhere in Afrika; Tribal Statistics; Lalela; Redemption Song; Africa Suite; Brothers and Sisters of Africa; To Bantustan?; Koze Kubenini?; Brothers and Sisters of Azania*. ARISTA AL8-8194 \$8.98, © AC8-8194 \$8.98.

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Donald Turnupseed? Probably it just means she wants to be thought of as hip. There are a couple of semi-interesting things here, but, on the whole, Newton sounds like the typical female singer who does everything her producer tells her to—and forgets why she started singing in the first place. *A.N.*

RECORDING OF SPECIAL MERIT

MARIA MULDAUR: *Sweet and Slow*. Maria Muldaur (vocals); instrumental accompaniment. *Cooking Breakfast for the One I Love; Adam & Eve Had the Blues; Blues for Hoagy (Laid Back Blues); Sweet and Slow; Oh, Papa;* and five others. TUDOR TR 109902, © TT 109902, no list price (from Tudor Records, 34 Merrick Avenue, Merrick, N.Y. 11566).

Performance: **Betty Boop grows up**
Recording: **Good**

When last we heard from Maria Muldaur, she was singing gospel music, a move that really shouldn't have surprised anyone who paid close attention to her wonderfully quirky, early albums. An artist with an easy link to both contemporary and older forms of music, Muldaur displayed early on that she had an affinity not only with pop, folk, and gospel, but also with blues and jazz, particularly of the Twenties and Thirties, or the era of Sippie Wallace (whose *Adam & Eve Had the Blues* appears here) and the late Mildred Bailey, after whom Muldaur obviously patterned much of her style.

In Muldaur's latest LP, actually recorded a year ago, the emphasis is clearly on the blues and jazz portions of her repertoire. Produced by David Nichtern, who wrote Muldaur's strikingly ethereal hit *Midnight at the Oasis*, "Sweet and Slow" strives not for another colossal chart success but rather to allow Muldaur to stretch out and enjoy herself with two of her favorite musical idioms.

For the listener, though, "Sweet and Slow" is a mixed success, and the fault is probably more in the sequencing than anything else. Side one, which features the inimitable Mac Rebennack on piano, offers six marvelous sportin'-house-style blues and light jazz selections, replete with Muldaur affecting a black accent, doin' a little scat, and even mimicking a horn sound (very Mildred Bailey) on *Brother, Seek & Ye Shall Find*. On side two, however, Muldaur ambles seductively through four uptown jazz numbers, including reprises of two songs she recorded years ago—Nichtern's *Oh, Papa and Lover Man (Oh, Where Can You Be)*. Enjoyable as they are, they're all slow pieces that drag on endlessly, making for a very long side.

Still, this is an album that goes straight to the heart, with Muldaur singing in a richer, fuller, more mature voice than in years past and obviously having a terrific time. Had Nichtern rearranged the program a bit, it would have been more apparent just how special "Sweet and Slow" really is. *A.N.*

RAY PARKER JR.: *Woman Out of Control*. Ray Parker Jr. (vocals, keyboards, guitar, bass, drums); vocal and instru-

mental accompaniment. *She Still Feels the Need; Electronic Lover; N2U2; I Don't Wanna Know;* and four others. ARISTA AL8 8087 \$8.98, © AC8 8087 \$8.98.

Performance: **Well controlled**
Recording: **Very good**

I was smitten by Ray Parker Jr.'s music in the summer of 1978, when his *Jack and Jill* bounced down New York streets from every other portable radio. Since then, some of his output has passed in one ear and out the other, but much of it has lingered in my memory. If Parker knows how to shape a hit—and he does—it is in some measure due to his background as a studio musician who has contributed to an extraordinary number of noteworthy recordings by some of the biggest stars in the business. "Woman Out of Control," his latest Arista album, offers enough variety to keep the attention level high, and the beat is carefully calculated to keep the body moving. Parker still has his finger on the pulse of contemporary pop, and he proves that it is possible to be thoroughly modern without modulating into high-tech punk. Most commendable, however, is the fact that, album after album, Parker continues to show originality and taste. *C.A.*

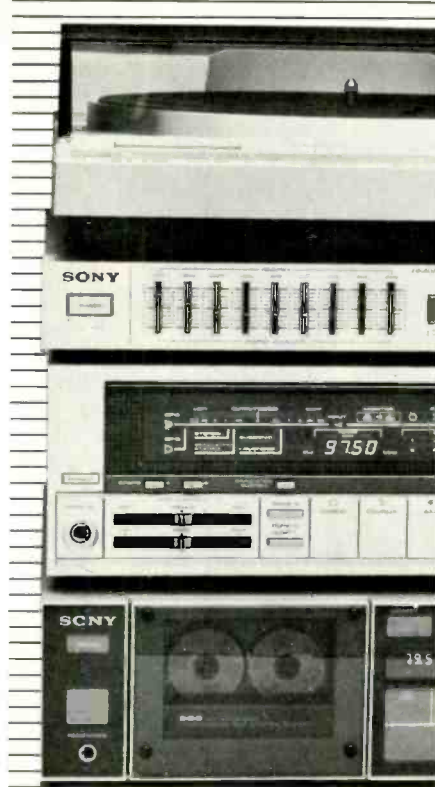
TEDDY PENDERGRASS: *Heaven Only Knows*. Teddy Pendergrass (vocals); vocal and instrumental accompaniment. *Crazy About Your Love; Judge for Yourself; I Want My Baby Back; Life Is for Giving; Just Because You're Mine; Heaven Only Knows;* and two others. PHILADELPHIA INTERNATIONAL FZ 38646, © FZT 38646, no list price.

Performance: **Muscular**
Recording: **Very good**

Although it is said that Teddy Pendergrass has made sufficient progress since his paralyzing accident two years ago to resume his career, the material on this album apparently consists of recordings left in the can before he became incapacitated. As such, it is fully representative of the virile r-&-b style that won him such an enthusiastic following, but it is something of a departure from the more intimate and subtle approach that was the outstanding feature of his last album, "This One's for You," possibly the most appealing thing he's ever done. Here he shouts, bellows, and writhes in the grip of sexual ardor, though he does not revert to his old cave-man posturing. There were five producers and fourteen writers for this set, but the material does not rank with the best he has recorded. Perhaps there were too many cooks.

The best song here is *Just Because You're Mine*, which was shaped mostly by Gene McFadden and John Whitehead. Pendergrass lets out all emotional stops in a searing performance that almost redeems the album all by itself. Indeed, his performances are notable throughout. Too bad most of the material is not. *P.G.*

LIONEL RICHIE: *Can't Slow Down*. Lionel Richie (vocals); vocal and instrumental accompaniment. *All Night Long (All Night); Penny Lover; Stuck on You;*



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Paul Simon: "Hearts and Bones"

PAUL SIMON's new album, "Hearts and Bones," might easily have been called "Hearts and Minds," for much of it deals with the conflict between emotion and intellect—the two edges along which Simon's music has always cut. Although his message is that the two are mutually exclusive, the album is, in fact, its own rebuttal, a nearly perfect collaboration between lyricism and logic.

Perhaps the most pointed study of the tug of war between mind and heart comes on the title cut, which traces "the arc of a love affair" as two lovers move from the simple state of being together to a probing, questioning restlessness—a compulsion not just to love but to understand

why and how much they love. "Hearts and Bones" is also about the gulf between the ideal and the real, and the endurance of hope despite it. In *Train in the Distance*, the sound of a train becomes a symbol for the persistent optimism that keeps us going—the feeling that life will be better regardless of all evidence to the contrary.

All of Simon's songs have a cyclic narrative structure: they unravel through a succession of episodes but always return to their point of departure, whether or not anything is actually resolved. A particularly moving example is *The Late Great Johnny Ace*, which links the death of a 1950's rhythm-and-blues artist—an event that made a strangely deep impression on Simon as a young boy—to the shooting of John Lennon. But what keeps the album from becoming oppressively maudlin is the underlying sense of humor: overt in *Cars Are Cars* and *Allergies*, a subtext in *René and Georgette Magritte with Their Dog After the War*, a delightful, surrealistic ode to the early rock-and-roll groups that Simon grew up listening to—the Orioles, the Five Satins, the Penguins.

Musically, "Hearts and Bones" is characteristic rhythmic Simon—jazzy but not jazz, folksy but not folk, spry pop with gospel and doo-wop flourishes. The engineering is crisp and detailed, an ideal setting for the sharp session work turned in by Al Di Meola, Dean Parks, and Eric Gail on guitars and a host of other pop-jazz sidemen. In a rather bizarre turn in the up-and-down relationship between Simon and Art Garfunkel, Simon removed Garfunkel's vocal tracks from the album at the eleventh hour. They are not missed. In fact, Simon handles most of the backing vocals himself. After all, if he can refute himself, he can certainly back himself.

—Mark Peel

PAUL SIMON: *Hearts and Bones*. Paul Simon (vocals, guitar); vocal and instrumental accompaniment. *Allergies; Hearts and Bones; When Numbers Get Serious; Think Too Much (a and b); Song About the Moon; Train in the Distance; René and Georgette Magritte with their Dog After the War; Cars Are Cars; The Late Great Johnny Ace.* WARNER BROS. 23942-1 \$8.98, © 23942-4 \$8.98.

Love Will Find a Way; Hello; and three others. MOTOWN 6059 ML \$7.98, © 6059 MC \$7.98.

Performance: **A change of pace**
Recording: **Good**

Lionel Richie, the former Commodore who writes and sings songs so sweet they sound as if they must have been conceived in an earlier, gentler era, did such a spectacular job of launching his solo career with his first album that I was curious to see how he might try to top it. This second set is something of a surprise, for he seems to be in a sprightlier frame of mind here, pulling away from

the sentimentality that gave him such strong crossover appeal.

The title track (and opener) bears an uncomfortably strong rhythmic resemblance to Michael Jackson's *Wanna Be Startin' Somethin'*, but after that things pick up. *All Night Long* vibrates with heady Caribbean rhythms in a delightful change of pace for Richie; it's certainly one of the best selections here. *Stuck on You* has that folk-flavored, countryish sound that has become a winning Richie characteristic, and *Love Will Find a Way* sounds so much like a Stevie Wonder tune that it is just about certain to become a hit.

The one ultra-schmaltzy number here is *Hello*, which is cast in the vein of *Truly* but isn't as pretty or delivered with as much emotional depth. Overall, "Can't Slow Down" is full of high-quality, highly listenable songs, though the peaks aren't as high as in his best earlier work. Yet even in second gear, Lionel Richie is better than most other tunesmiths and singers out there.

P.G.

TRIO: *Trio and Error*. Trio (vocals and instrumentals). *Boom Boom; Hearts Are Trump; Out in the Streets; Bye Bye; Drei Mann im Doppelbett; Tutti Frutti;* and five others. MERCURY 814 320-1 \$8.98, © 814 320-4 \$8.98.

Performance: **Disarming**
Recording: **Exquisitely raunchy**

It's hard to decide whether these guys are idiot savants or just plain idiots. One minute bashing out the most primal three-chord clichés, the next cheerfully caroling à la Ray Coniff, Trio manages to find the genius in the simple-minded. "Trio and Error" is a crazy-quilt of styles, from the heavy-handed, Lou Reedish *Boom Boom* to the Statleresque c-&-w mopiness of *Hearts Are Trump* to the numbing guitar distortion of *Ich lieb den Rock 'n' Roll* (the band is German) to the astounding *Tooralooralooraloo*, astounding because it could just as easily have been the above-mentioned Coniff's nod to St. Paddy's Day as the work of three German rockers. The lyrics (those in English, anyway) are refreshingly unpretentious and unambiguous, and the instrumentals are, if not the most technically accomplished, surely among the most impassioned I've heard in some time. I confess to being completely baffled by this album. Delightfully baffled, though.

M.P.

RECORDING OF SPECIAL MERIT

IAN TYSON: *Old Corral & Sagebrush*. Ian Tyson (vocals, guitar); instrumental accompaniment. *Alberta's Child; The Old Double Diamond; Windy Bill; Montana Waltz; Old Alberta Moon; Night Rider's Lament;* and five others. COLUMBIA FC 38949, © FCT 38949, no list price.

Performance: **Elegiac**
Recording: **Excellent**

Ian Tyson stares out of the black-and-white cover of his new album like a character from another time, a face frozen, perhaps, in a nineteenth-century tintype. Inside the jacket, however, one meets characters of a different type, characters not frozen but liberated, having walked and ridden and roped their way out of a Charles M. Russell painting. There's *Diamond Joe*, for example, "who carries all his money in a diamond-studded jaw" and mistreats the cowhands who try to quit his employ, and *Windy Bill*, who never met the steer he couldn't tie until the day he crossed paths with "the little black brute who lives down in the draw." Tyson and his cowboys whoop and punch and brand their way through eleven exquisite vignettes of men of the vanishing breed of working cowboys of North America. From the introduction of *Alberta's Child* in the opening cut to the

break of dawn in *Night Rider's Lament*, it is a glorious, exhilaratingly beautiful ride, mesquite scratches and all.

Canadian-born Tyson's four originals here are pure western. His modern-day buckaroos ride pickup trucks instead of packhorses, but he makes it clear that the cowboy's joys and heartaches have grown no less simple or severe. This is more an elegiac album than a romantic one, an elegant, graceful look at an era now almost gone. It is underscored by Tyson's sparse, moody production, his soulful singing, and the campfire-perfect picking of lead guitarists Nathan Tinkham and Danny McBride and mandolinist Dave Wilkie. "Old Corral & Sagebrush" has been out only a few months, but already it has the feel of a quiet classic. *A.N.*

DIONNE WARWICK: *How Many Times Can We Say Goodbye* (see Best of the Month, page 60)

RECORDING OF SPECIAL MERIT

SHELLY WEST: *Red Hot*. Shelly West (vocals); orchestra. *Good and Lonesome; Again; Small Talk; Dance Away; Now I Lay Me Down to Cheat; Love Me Again;* and four others. VIVA 23983-1 \$8.98, © 23983-4 \$8.98.

Performance: **Sexy and funny**
Recording: **Good**

Now, how could I give a bad review to a singer who performs anything like *Now I*

Lay Me Down to Cheat or Another Motel Memory? Even if she weren't as good as Shelly West, I still don't think I could resist those titles. In any event, West's buxom vocals and often truly funny, matter-of-fact delivery gives each of these performances a double-edged quality of expectant horniness combined with the foreknowledge of inevitable disaster. West's c-&-w inflections are just right for this kind of material, and I can only hope she keeps on truckin' down the primrose path in her next album. We can use all the good bad girls we can get. *P.R.*

YES: "90125." Yes (vocals and instrumentals). *Owner of a Lonely Heart; Hold On; It Can Happen; Changes;* and five others. ATLANTIC 90125-1 \$8.98, © 90125-4 \$8.98.

Performance: **Rococo**
Recording: **Good**

In its heyday, Yes could boast not one or two, but three legitimate rock superstars—guitarist Steve Howe, keyboard virtuoso Rick Wakeman, and lead vocalist Jon Anderson. Although each had a rather limited stylistic range, in collaboration they managed to sustain interest to a degree that would have been impossible for any one of them individually.

Yes is now well past its heyday, and only Jon Anderson remains (even he had to get away from the band for a while). The group now depends on Anderson's soprano almost exclusively for its identi-

ty. In spite of the purity and clarity of his tone, this creates real problems. In the absence of strong instrumental ideas, the band is here reduced to trying all possible permutations of Anderson's idiosyncratic, tintinnabulary cadences—in extravagantly overdubbed choruses, elaborate harmonies, and synthesized embellishments. This is rococo rock—all ornamentation, no foundation. *M.P.*

RECORDING OF SPECIAL MERIT

PAUL YOUNG: *No Parlez*. Paul Young (vocals); vocal and instrumental accompaniment. *Come Back and Stay; Love Will Tear Us Apart; Wherever I Lay My Hat (That's My Home); Ku Ku Kurama; No Parlez; Broken Man;* and five others. COLUMBIA BFC 38976, © BCT 38976, © CD 25521, no list price.

Performance: **Very good**
Recording: **Exceptional**

The distinction between soul and synth-pop has never been so blurred as on Paul Young's "No Parlez." Plangent funk bass melts into a swirling synthesized wind. Motown standards like Marvin Gaye's *Wherever I Lay My Hat (That's My Home)* and Booker T.'s *Iron Out the Rough Spots* sound like satellite transmissions with background vocals and percussion dissolving into electronic echoes. Young's vocals have a soulful, emotional intensity, yet the phrasing is tentative, deliberate, and, well, English.

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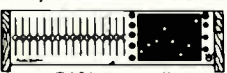
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Contradictions aside, this is one of the most elegantly arranged and produced albums I've come across in some time. There's a great deal of time and space lavished on each instrument; even a few gentle taps on wood blocks ring out with utter clarity and definition. The synthesizer programming is also quite sophisticated, with a few celestial effects I haven't heard before. The production virtually overpowers the content, making "No Parlez" an album of spectacular moments but an elusive record on the whole. *M.P.*

COLLECTION

RECORDING OF SPECIAL MERIT

AN EVENING WITH WINDHAM HILL LIVE. Michael Hedges (guitar); Alex deGrassi (guitar); George Winston (piano); Will Ackerman (guitar); other musicians. *Rickover's Dream; Turning; Turning Back; Clockwork; Spare Change; Visiting; Hawk Circle; Reflections/Lotus Feet.* WINDHAM HILL WH-1026 \$9.98, © WT-1026 \$9.98.

Performance: **Excellent**
Recording: **Superb**

Windham Hill is a West Coast label that's home to what might be called the American pop-jazz impressionists. The artists showcased on this live recording stand in sharp contrast to the jazz players who've come out of New York's avant-garde loft scene. Windham Hill's emphasis is not so

much on form or technique as on tone, color, sensation, and emotion. Which is not to say this music is without form or that the musicians don't possess great skill. Although simple in structure, it luxuriates in the sound of the instruments, chiefly guitar and piano.

The principal talents on display here are those of Alex deGrassi, Michael Hedges, and Will Ackerman, all guitarists, and pianist George Winston. DeGrassi, Hedges, and Ackerman sound as if they'd studied together, although these brief appearances are probably not enough to give a reasonable indication of their style or technique. All play acoustic instruments, and all achieve a meditative, strongly folk-like quality in their compositions. Looping, canonical guitar phrases spin off into gentle themes in piano, bass, and lyricism. Winston reminds me of the more lyrical side of Keith Jarrett—lean and elegant.

I confess to having a certain prejudice against musicians who make this kind of music, because they seem especially prone to taking themselves too seriously. I half expected a lecture on nuclear disarmament midway through the concert. Instead, to my relief, Alex deGrassi introduced *Turning: Turning Back* with the revelation that while "many people have told me they use this song for weddings and childbirths . . . actually it's about a trip to Philadelphia." Now that's what I like—a pretty song with a sense of humor. *M.P.*



RECORDING OF SPECIAL MERIT

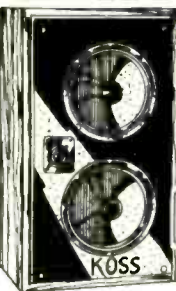
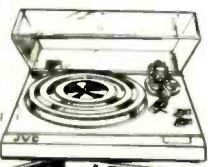


ART BLAKEY: *Art Blakey in Sweden.* Art Blakey (drums); Wynton Marsalis (trumpet); Bobby Watson (alto saxophone); James Williams (piano); others. *Web City; How Deep Is the Ocean; Gypsy Folk Tales; Skylark.* AMIGO AMLP 839 \$16.98 (from Dominus Records, P.O. Box 48, Darien, Conn. 06820).

Performance: **Excellent**
Recording: **Fairly good**

In view of the enormous success trumpeter Wynton Marsalis has had in the past couple of years, it is not surprising that his past efforts are being widely marketed. Fortunately, there is little, if anything, recorded by Marsalis that won't stand close scrutiny. His playing has matured somewhat since he started his meteoric rise, but there is nothing wrong with Marsalis's work on "Art Blakey in Sweden," a set recorded three years ago

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More Elvis



YOU might suspect that the fourth volume in RCA's posthumous Elvis Presley series, "Elvis: A Legendary Performer," contains only barrel-scrappings for the faithful. But there are at least four highly interesting tracks on this album of previously unreleased material.

The first is *When It Rains, It Really Pours*, an odd-side-out from the Sun Records sessions of 1954-1955, before Presley's contract was bought by RCA. There are two false starts, when guitarist Scotty Moore is stopped by producer Sam Phillips to talk about a guitar break and when Presley stumbles over a lyric, some back-and-forth chatter, a joke about Carl Perkins (whose *Blue Suede Shoes* on the Sun label was selling better than any of Presley's singles), and then a complete performance. The song is average, but Presley's singing—he was only nineteen at the time—is charged with that special urgency he had when he was young. It's also obvious from the joshing that Presley was very happy and relaxed, delighted to be able to make music.

I'm Beginning to Forget You and *Mona Lisa*, found at Graceland, are home recordings with no date. The first begins with Presley talking to a couple of his flunkies and making one of his bizarre diet requests—a dozen boiled eggs. He walks into another room with someone named Carl, makes a false start, and begins to sing. It may be Presley playing guitar; if so, he was surprisingly competent. But then there is his magical voice. There simply was no one else like Presley. All the hoopla since his death has obscured his musicianship. These poorly recorded home tapes provide a needed reminder that the man was one of the world's most accomplished vocalists.

The fourth outstanding item is *One Night*, truly an "alternate take" because the lyrics are significantly different from the familiar version. As released, *One Night (with You)* is a robust performance with a rhythm-and-blues arrangement and a sentimental storyline about a man wishing he could spend the night with his girl friend while they discuss their future

life together in matrimony. The performance here is the original, titled *One Night (of Sin)*. The arrangement is the same, but the plot and sentiments concern a married man who has strayed. Presley or someone else must have decided the song wasn't good for his image, so the lyrics were laundered for the released version. Both sets are credited to Dave Bartholomew and Pearl King (Bartholomew was Fats Domino's song partner and band-leader).

Of the remaining selections there is little good to say. *The Lady Loves Me*, a duet with Ann-Margret from the Presley movie *Viva Las Vegas*, shows both performers at their professional best, but the song is old cheese. *Plantation Rock* was intended for use in another cheapo Presley musical but was held back. It is an example of the trash he was compelled to sing for the sake of his disappointing Hollywood career. A live version of *That's All Right*, recorded for his famous 1968 TV special, has a yahoo momentum and a gritty vocal, but it goes on too long. *Reconsider Baby*, taken from a 1972 concert, begins with Presley taking interest in singing a near-blues, but his attitude changes in mid-performance; the saving grace is James Burton's guitar back-up. *Are You Lonesome Tonight*, previously issued in the limited-edition, multidisc "Elvis Aron Presley" album, has him making one of his dull jokes about a lyric line and then cracking up over it.

Still, the album contains some valuable leftovers, and I recommend it to anyone interested in Presley as a musician.

—Joel Vance

ELVIS PRESLEY: A Legendary Performer, Volume 4. Elvis Presley (vocals); vocal and instrumental accompaniment. *When It Rains, It Really Pours*; *One Night (of Sin)*; *I'm Beginning to Forget You*; *Mona Lisa*; *The Lady Loves Me*; *Plantation Rock*; *Swing Down Sweet Chariot*; *Wooden Heart*; *That's All Right*; *Are You Lonesome Tonight?*; *Reconsider Baby*; *I'll Remember You*. RCA CPL1-4848 \$8.98, © CPK1-4848 \$8.98.

in Stockholm and recently made available here. Blakey has always attracted fine young players to his Jazz Messengers groups. Here it is not only Marsalis we hear good things from but also tenor saxophonist Bill Pierce, pianist James Williams, bassist Charles Fambrough, and, especially, altoist Bobby Watson.

Marsalis and Watson are featured on one track each, and the other two are shared. Good as he is, though, I wish Art Blakey had devoted less time to his own solos. Most drummers are guilty of self-indulgence, and the pain is more easily endured when the player is as accomplished as Blakey, but there ought to be a law. . . . Once past the opening drum solo, Walter Davis Jr.'s *Gypsy Folk Tales* almost flies off the disc, cooking all the way to the end. Finally, as to the recording technique, only one stereophonic microphone was used and, "to preserve the true acoustical prospective [sic], no mixing, noise reduction or compression." I am all for it, but the piano could have used a little more presence. C.A.

RECORDING OF SPECIAL MERIT

CONTINUUM: Mad About Tadd. Continuum (instrumentals). *Sid's Delight*; *Squirrel*; *Lady Bird*; and three others. PALO ALTO JAZZ 8029-N \$8.98 (from Palo Alto Records, 755 Page Mill Road, Palo Alto, Calif. 94304).

Performance: **Delightful**
Recording: **Excellent**

Composer/arranger Tadd Dameron died in 1965, and although he never was known much beyond the relatively small world of jazz, his contribution to the music remains a vital legacy cherished by modern jazz players throughout the world. "Mad About Tadd" therefore expresses the feelings of many, but the men who make up the quintet Continuum don't just say it, they play it. It would be a great honor for any composer to have Slide Hampton, Jimmy Heath, Kenny Barron, Ron Carter, and Art Taylor play his or her music, but when these stellar players combine their talents to devote an entire album to Dameron, any question of his place in the scheme of things immediately becomes moot. There aren't many sessions like this any more. C.A.

AL DI MEOLA: Scenario. Al Di Meola (electric guitar, synthesizers); Phil Collins (drums); Jan Hammer (piano, keyboards, synthesizers); other musicians. *Mata Hari*; *African Night*; *Scenario*; *Sequencer*; *Cachaca*; *Hypnotic Conviction*; and two others. COLUMBIA FC 38944, © FCT 38944, no list price.

Performance: **Two-sided**
Recording: **Very good**

This album by the ever-imaginative and inventive Al Di Meola has two totally different sides, the first far superior to the second. On side one Di Meola builds a complex sound tapestry using Eastern rhythms, modes, and textures. The opener, *Mata Hari*, is like an Indian raga in its rich overlaying of rhythms and basic themes transformed into new sounds fitting old patterns. *African Night* is no less

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Columbia Records

THE latest recorded triumph by the incredible, and incredibly fine, Alberta Hunter is "Look for the Silver Lining." Now somewhere in her eighties, Hunter continues to perform and record with all the aplomb of a mere slip of sixty or so. Her real age isn't of the least importance, because she is one of those absolutely unique performers with a voice and style that carry her monogram whatever the material.

Perhaps Hunter's most overwhelming attribute is her humor. She can be bawdy, wistful, or wry, often all three at the same time. Nobody—repeat, *nobody*—has ever sung this album's *He's Funny That Way* or *Somebody Loves Me* with quite the same intonations, insinuations, and mood changes as Hunter gives them. The high point here for me is Hunter's tribute to her contemporary Josephine Baker, a

version of Baker's signature song, *J'ai deux amours*. It's the kind of performance that summons up all sorts of memories and ghosts, not just of an entertainer who's no longer with us but of a whole epoch that probably ended in 1929.

This is a lovely album, lovingly and gracefully produced by John Hammond. The witty, knowing liner notes are by Chris Albertson. —Peter Reilly

ALBERTA HUNTER: *Look for the Silver Lining*. Alberta Hunter (vocals); vocal and instrumental accompaniment. *Without Rhythm; Look for the Silver Lining; Now I'm Satisfied; Georgia on My Mind; J'ai deux amours; Black Man; He's Funny That Way; Somebody Loves Me; On the Sunny Side of the Street; Somebody Told Me So.* COLUMBIA FC 38970, © FCT 38970, no list price.

interesting with its synthesized animal sounds and equally rich textures, and *Scenario* has the feeling of European classical music with a Spanish flavoring.

On the flip side, however, Di Meola and Jan Hammer, who also composed some of the material, rely much too heavily on synthesizers and metallic whinings. The strong rock influences that have lately become so prominent in Di Meola's music take over, and too many of the tracks end up sounding alike. But that first side is a real treat. P.G.

WOODY HERMAN: *Woody Herman Presents a Great American Evening, Volume 3*. Woody Herman (clarinet, vocals); Jack Sheldon (trumpet, vocals); Scott Hamilton (tenor saxophone); Eiji Kitamura (clarinet); others. *I Cover the Waterfront; Leopard-Skin Pill-Box Hat; Avalon; Wave;* and four others. CONCORD JAZZ CJ-220 \$8.98, © CJ-220 \$8.98.

Performance: **The right bounce**
Recording: **Very good remote**

As the title implies, Woody Herman is the leader here, but this is an album of

leaders, all with their own albums on the Concord Jazz label—a jam session that very much reflects the past. Scott Hamilton mirrors the great Swing Era tenor men, Eiji Kitamura emulates Benny Goodman, and Jack Sheldon plays fiery trumpet *à la* Roy Eldridge. Sheldon also sings, after a fashion, but his silly rendition of Bob Dylan's *Leopard-Skin Pill-Box Hat* is something the album could have done without. Ron McCroby's whistling on the rousing final track, *Caldonia*, is extraordinary, but his featured number, Jobim's *Wave*, is disappointingly off the mark.

Apropos not being on target, Kitamura abandons Goodman on *Pennies from Heaven* and does a splendid job of destroying what trombonist George Masso had otherwise honed into a fine track. Herman is himself throughout, and that is a blessing. Remove a wart or two, and you have a presentable evening if not a great one. C.A.

JOHNNY HODGES/CHARLIE SHAVERS: *A Man and His Music*. Johnny Hodges (alto saxophone); Charlie Sha-

vers (trumpet); other musicians. *Bye Bye Blackbird; I Got It Bad; Undecided; "C" Jam Blues; Perdido; All of Me; In a Mellow Tone;* and six others. STORYVILLE © SLP 4073 \$7.98, © SC4 4073 \$7.98.

Performance: **Very good**
Recording: **Very good mono**

The album title is "Johnny Hodges/Charlie Shavers—A Man and His Music," but don't let that throw you; Hodges and Shavers were not one and the same. For that matter, they don't appear together on any of the album's thirteen tracks. This is a very good, sometimes excellent collection of recordings by the two Swing Era stars, consisting for the most part (eleven tracks) of selections they recorded, separately, with the Al Waslon Trio. Waslon is not familiar to me, but we are told the material originated in Columbia, Ohio. There is, of course, no such town, so I presume they mean Columbiana or, even more likely, Columbus. From the sound of things, these were broadcasts, and I'm afraid the album's uncredited producer left in the mellow voice of an announcer reading trite introductions. Apart from that, this is a set of enduring music, technically well recorded.

The remaining two tracks are of equally enigmatic origin, one being a seven-minute version of *In a Mellow Tone* featuring Hodges with a band that includes two fellow Ellingtonians, Shorty Baker and Lawrence Brown, and a youngish-sounding but eminently recognizable John Coltrane. Finally there is a John Kirby Sextet rendering of Shavers's own *I'll Make Fun for You*. That, at least, is what the label tells us, but the song is the very same *I'll Make Fun for You* that was recorded by vocalist George Thomas and McKinney's Cotton Pickers in 1930, when Shavers was thirteen! Sloppy research? You bet. But the album has a lot going for it, not the least of which is fine jazz music. C.A.

KEITH JARRETT: *Standards, Vol. 1*. Keith Jarrett (piano); Gary Peacock (bass); Jack DeJohnette (drums). *Meaning of the Blues; All the Things You Are; It Never Entered My Mind; The Masquerade Is Over; God Bless the Child.* ECM 23793-1 \$9.98, © 23793-4 \$9.98.

Performance: **Warm, lyrical piano**
Recording: **Excellent**

This album is presumably the first in a series of interpretations of the standard jazz repertoire by Keith Jarrett and friends. The format here is a trio, with longtime Jarrett colleague Jack DeJohnette, a brilliant accompanist, on drums and the supple, swinging Gary Peacock on bass. It's rare that we get to hear Jarrett put his hand to anything like conventional jazz. Standards like these seem to grow with repeated refashioning, and Jarrett's warm, lyrical tone and rolling gospel inflections add the mark of another great pianist to their heritage.

But if there is to be a second volume, producer Manfred Eicher would do well to gag his self-indulgent star. In addition to his piano technique, Jarrett adds the stamp of his vocalizing—squealing is a better word—to the music. As he plays, he doubles the right-hand melodic figure

with a high-pitched whine *à la* the late Glenn Gould, though much shriller and louder, as if he were in the grip of a charismatic faith healer. The effect is remarkably like the sound of a crying baby, a noise scientists have found to be irritating to all ages, sexes, and cultures. The howling made me want to rush over and pick up the tone arm. *M.P.*

HUBERT LAWS: *Make It Last.* Hubert Laws (flutes, piccolo); vocal and instrumental accompaniment. *Make It Last; Swan Lake; Stay with Me; Morning Star;* and four others. COLUMBIA FC 38850, © FCT 38850, no list price.

Performance: **Excellent, but . . .**
Recording: **Good**

Hubert Laws's technique is really dazzling, his compositional originality unsailable. But how much virtuoso pop flute playing are you in the mood to hear? For me, weariness set in after less than one side of this record. Probably the best thing here is an inventive track called *Gonna Be Happy (TV Soap)* in which Laws serves as rap-narrator and piccolo player extraordinaire. Second best is assuredly Eloise Laws's vocals in *Make It Last*. By the time Laws got to his interpretation of Tchaikovsky's *Swan Lake*, though, my interest was flagging—fast. There's no question that Hubert Laws is a fine artist, but this material isn't commensurate with his gifts. *P.R.*

JOHNNY MERCER: *Jeepers Creepers.* Johnny Mercer (vocals); Les Brown Orchestra, Ray Bloch Orchestra, Paul Smith Quartet (instrumentals). *Blues in the Night; One for My Baby; If I Had My Druthers; Jeepers Creepers; Them There Eyes; Witchcraft; Java Jive;* and seven others. GLENDALE Ⓞ GLS-9005 \$8.98 (from Glendale Records, P.O. Box 1941, Glendale, Calif. 91209).

Performance: **Relaxed**
Recording: **Creaky**

Johnny Mercer was one of the most engaging performers of his own songs. His relaxed Southern drawl and nonchalant phrasing suited even his more dramatic pieces such as *Blues in the Night* and *One for My Baby*. To lighter material, such as *Them There Eyes*, he imparted an ease that could only be matched by Bing Crosby. This collection of tracks recorded in the mid-Fifties will be a happy present for his longtime fans or for those for whom nostalgia has become a way of life. For me it was pleasant but hardly galvanic listening. *P.R.*

BEN WEBSTER: *The Horn.* Ben Webster (tenor saxophone); Hot Lips Page (trumpet); Clyde Hart (piano); Charlie Drayton (bass); Denzil Best (drums). *Don't Blame Me; I Surrender, Dear; 'Nuff Said; Woke Up Clipped;* and four others. CIRCLE Ⓞ CLP-41 \$8.98 (from Circle Records, 3008 Wadsworth Mill Place, Atlanta, Ga. 30032).

Performance: **Chamber swing**
Recording: **Excellent mono**

In the days before radio took a back seat to TV as home entertainment, musicians

frequently made recordings designed exclusively for airplay. These so-called "transcriptions" often had a superior sound, probably because they were usually mastered at 33½ rpm and pressed on "unbreakable" material. Then, too, the music was often of enduring quality. That is particularly true of jazz transcriptions, which, given the improvisational nature of jazz, have assumed special importance over the years.

One such session, featuring the hot, buttery tenor saxophone of Ben Webster leading a quintet with Hot Lips Page and Clyde Hart, took place on February 8, 1944, and is now available in "The Horn." The trouble with this Circle al-

bum is not the music, which is a veritable swing treasure, but the production. Producer George H. Buck apparently decided to issue every sound preserved that day in that studio, so he has stretched the material into two records. I haven't received the companion record, but the notes for this one, obviously meant to cover both sets, make numerous references to tracks that are not to be found within. That is simply bad packaging. Even worse is the fact that the record contains a total of only twenty-three minutes and thirty-six seconds of sound, less than many labels give you on a single side. If the music were not so wonderful, I would suggest bypassing this release. *C.A.*



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VIDEO



CROSBY, STILLS & NASH: Daylight Again. Crosby, Stills & Nash (vocals and instrumentals); instrumental accompaniment. *You Don't Have to Cry; Wasted on the Way; Treetop Flyer; Blackbird; Cathedral; Magical Child; Barrel of Pain;* and fourteen others. MCA VIDEODISC 74-020 CX stereo, extended-play \$24.95.

Performance: **Happy reunion**
Recording: **Good video and audio**

"Daylight Again," taken from three November 1982 concerts at the New Universal Amphitheatre in Universal City, California, captures a reunion of Crosby, Stills and Nash. The group was formed fifteen years ago, when the three already established stars teamed up informally at the home of the late Cass Elliott, to whom they have dedicated this video presentation. In 1969, Atlantic released the first CS&N album, a set containing many of the enduring songs on this 108-minute video disc, including *Suite: Judy Blue Eyes*, the group's first hit. Written by Stephen Stills, purportedly as a tribute to Judy Collins, it provides one of the highlights of the album. By the time of the second album, "Déjà Vu," CS&N had become CSN&Y, having been joined by Neil Young, so this is the original threesome, and the years have dimmed neither the talents of the individual members nor the power of their music.

Except for the short Cousteau Society film that accompanies Graham Nash's *Wind on the Water* and some interesting video effects generated during the performance of his *Cathedral*, this is all concert footage. The lighting is accordingly wanting, but the stereo sound is respectable remote stuff. As video discs go, this is very good value for the money. C.A.

LIONEL HAMPTON: Live Hamp!, Volume 1. Lionel Hampton (vibraphone, drums, vocals); the Lionel Hampton Band (instrumentals). *Air Mail Special; Smooth Sailin'; Hamp's Boogie Woogie.* SONY VIDEO LP, VHS 96W50002 \$24.95, Beta 96W00001 \$19.95.

Performance: **Tired**
Recording: **Unimpressive**

To call something a "Video LP" when all you get is twenty-two minutes of music is definitely a misnomer. Lionel Hampton's "Live Hamp!" amounts to three selections taped at Paul Anka's Jubilation in Las Vegas two years ago. The program begins with an undistinguished arrangement of the all-but-worn-out *Air Mail Special*, which features a nice long solo by the leader but still fails to get off the ground. Next comes *Smooth Sailin'*, featuring the tenor saxophone of its compos-

er, Arnett Cobb. Cobb is known for his robust Texas style, but here he fizzles out. *Hamp's Boogie Woogie* is just that, a perennial crowd rouser that has nothing new to offer. The big band has some fine musicians in it, but they are not given a chance here. Unimaginative camera angles, bad lighting, and William Cosel's singleminded direction mar the video side of this release. C.A.

LITTLE RIVER BAND: Live Exposure. Little River Band (vocals and instrumentals). *It's a Long Way There; Reminiscing; Lady; Lonesome Loser; The Night Owls; Cool Change; Ballerina;* and six others. PIONEER LASERDISC PA-83-038 CX stereo, extended-play \$24.95.

Performance: **Excellent**
Recording: **Fine audio**

Little River Band will soon celebrate its tenth anniversary. The middle-of-the-road Australian rock group never quite made it to the very top, but its endurance in itself an achievement in a field where the public attention given many performers is little more than the fifteen minutes Andy Warhol said we would all be allotted eventually.

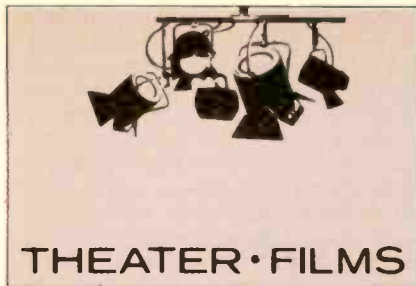
"Live Exposure" presents the group as captured at a 1981 concert in Houston, Texas. Musically, it is guaranteed to meet the expectations of any Little River Band fan, but I suspect only a staunch fan will go wild over the visual glimpse this LaserDisc offers. It is fifty-eight minutes of straight concert stuff unimaginatively filmed with, basically, one angle for each of the three cameras: a long shot, a low-medium closeup, and an extreme close-up. The inadequate lighting yields a general fuzziness and unnatural colors throughout. The CX-encoded stereo sound, however, is excellent. C.A.

RECORDING OF SPECIAL MERIT

UTOPIA: The Utopia Sampler. Utopia (vocals and instrumentals). *Hammer in My Heart; You Make Me Crazy; Feet Don't Fail Me Now.* SONY VIDEO 45, VHS \$19.95, Beta \$15.95.

Performance: **Terrific**
Recording: **Good**

Utopia, of course, is simply Todd Rundgren and hired hands, and Todd, as you may know, makes two kinds of music—listenable, when he's in a pop-rock mood, and unlistenable, when he attempts anything else. This new video, fortunately, is pop-rock all the way, and it's a delight. All three tunes here are vintage Sixties revisionist, and the visual images Todd has conjured up (wearing his director's hat) are glitzy, imaginative, and funny. *Hammer in My Heart* finds the band done up in matching Beatles suits, *You Make Me Crazy* is appealing domestic surrealism, and *Feet Don't Fail Me Now*, in which Todd and the boys appear as centipedes, is a delirious production number that resembles a Black Flag commercial as it might have been staged by Salvador Dali. It's all pretty lightweight, but if there's been a more entertaining music video put before the public, I haven't seen it. —Louis Meredith



THEATER • FILMS

DAVID BOWIE: *Ziggy Stardust, The Motion Picture*. David Bowie (vocals); Spiders from Mars (vocals and instrumentals). *Hang On to Yourself; Ziggy Stardust; Watch That Man; Wild Eyed Boy from Freecloud/All the Young Dudes/Oh! You Pretty Things; Moonage Daydream*; and ten others. RCA CPL2-4862 two discs \$11.98, © CPK2-4862 one cassette \$11.98.

Performance: **Dated**
Recording: **Not so hot**

Ah yes, just what the world needs: glitter-rock nostalgia. This, of course, was recorded back in the days when Bowie was "controversial," and what's most interesting about it is how utterly conventional it is—just an unremarkable hard-rock band doing second-rate Rolling Stones imitations. Mostly, it's a mess, lackluster performances offered up with atrocious sound. If this kind of early-Seventies hairdresser-from-outer-space stuff still interests you, you'd be better off looking for Bowie bootlegs. *S.S.*

RECORDING OF SPECIAL MERIT

LA CAGE AUX FOLLES (Jerry Herman). Original-Broadway-cast album. George Hearn, Gene Barry, John Weiner, others (vocals); chorus and orchestra, Donald Pippin cond. RCA © RCD1-4824, no list price.

Performance: **Committed**
Recording: **Super**

What a difference digital playback makes! The Compact Disc version of *La Cage aux folles* opens up the sound of this first digitally recorded original-cast album in a way that truly fulfills the promise of the new technology. The digitally mastered analog LP and cassette were released concurrently with the show's Broadway opening some months ago, and while the sound was very good, it wasn't all that different from other recent state-of-the-art show albums. The CD is a revelation. Although the transfer has been made at a slightly higher level than the LP, the orchestra has more air around it and fills out that dynamic space with even more razzle and more dazzle than before. The voices emerge more clearly and heartily, acquiring a bloom at the top they didn't quite have previously.

RCA's engineers and producer Thomas Z. Shepard, working under great pressure to beat that opening-night curtain, here make obvious the skill with which they put their digital know-how to use.

—Christie Barter

(Continued on the next page)

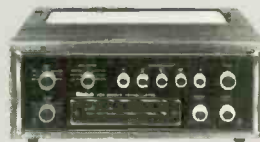
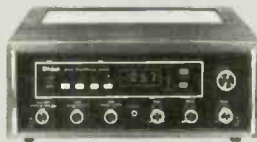
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CIRCLE NO. 40 ON READER SERVICE CARD

My One and Only



Kenn Ducan/Jackson and Freedman

IT'S hard to believe now that when *My One and Only* opened in Boston, it was such a shambles that Tommy Tune, its choreographer and male lead, felt obliged to apologize to the audience at curtain time. What finally opened on Broadway, and is still playing to full houses there, is a blithely charming show with a lilting George and Ira Gershwin score, wonderful dancing, and authentic star performances by Tune and Twigg. The chemistry between them on stage has something of the old magic of Ginger Rogers and Fred Astaire, and I'm happy to say that it comes across at least once on the new Atlantic original-cast recording. When Twigg sings *Boy Wanted* in counterpoint with Tune crooning *Soon*, the listener is catapulted right into the theater as the roar of the greasepaint comes right through the speakers.

It would be difficult to resist any musical that has, in superb new arrangements by Wally Harper, such immortal Gershwin songs as *He Loves and She Loves*, *S'Wonderful*, *Strike Up the Band*, *Nice Work If You Can Get It*, and *Funny Face*. I didn't bother to try; I just luxuriated in their loveliness. The only real

disappointment in the album is the sound quality of both Tune's and Twigg's voices. On stage Tune seems to have the perfect voice for musical comedy—light, melodious, and clearly articulated. Similarly, Twigg, in the theater, shows off a delightful variation of Ruth Etting's classic Thirties style, with a lot of ritard in her phrasing and built-in mournful gulps of emotion. On this recording Tune's voice seems *too* light, diffused, and Twigg's is reduced to a kind of clipped bray. *How Long Has This Been Going On?*, Twigg's biggest number in the show, sounds strangely distant and uninvolved here. But I am such a fan of the show that I'm perhaps being too picky.

In any event, this is one of the best original-cast albums of the last several years, and it's as welcome as the flowers in spring. Tra-la. —Peter Reilly

MY ONE AND ONLY (Ira Gershwin-George Gershwin). Original-Broadway-cast recording. Tommy Tune, Twigg, Charles "Honi" Coles, Denny Dillon, Bruce McGill, others (vocals); orchestra, Jack Lee cond. ATLANTIC 80110-1 \$9.98, © 80110-4 \$9.98.

A STEPHEN SONDHEIM EVENING (Stephen Sondheim). Liz Callaway, Chris Groenendaal, Bob Gunton, George Hearn, Steven Jacob, Judy Kaye, Victoria Mallory, Angela Lansbury (vocals); orchestra, Paul Gemignani cond. RCA CBL2-4745 two discs \$16.98, © CBK2-4745 two cassettes \$16.98.

Performance: **Dedicated**
Recording: **Good**

This recorded souvenir of a ninety-minute concert (there were actually two concerts, both given in the same evening last spring) of the work of Stephen Sondheim was sponsored by the Whitney Museum's

Composers' Showcase Series. The packaging is lavish, including a complete libretto along with many photographs of the performers. Equally lavish is the number of Sondheim songs presented—twenty-one in all, ranging from excerpts from his unproduced *Saturday Night of 1954* to songs from his most recently produced (1982) Broadway *succès d'estime*, *Merrily We Roll Along*.

The performers here are all good, the standouts being Judy Kaye in *Another Hundred People* and *Being Alive*, both from *Company*; George Hearn and Victoria Mallory in the poignant *With So Little to Be Sure Of* from *Anyone Can Whistle*,

and Chris Groenendaal in *Johanna* from *Sweeney Todd*. They are obviously dedicated to Sondheim's talent and perform with the kind of letter-perfect skill that any composer would have to be grateful for. Although this was a one-night-only event there is an extraordinary feeling of fine ensemble singing and acting from start to finish, particularly at the finish. That's when Angela Lansbury makes a "surprise" appearance to sing, with Sondheim at the piano, perhaps his most popular song, *Send In the Clowns*. Lansbury is not only a fine ensemble actress/singer; she also possesses a truly radiant star quality. Her innate warmth and humanity always add an extra dimension to Sondheim's work, and she offers a brilliantly glowing performance here that brings a wonderful evening to an exalted conclusion. P.R.

SUPERMAN III (Ken Thorne-Giorgio Moroder). Original-soundtrack recording. Marshall Crenshaw, Chaka Khan, others (vocals); orchestra. WARNER BROS. 23879-1 \$8.98, © 23879-4 \$8.98.

Performance: **Forgettable**
Recording: **Fine**

This aural documentation of the latest installment in the *Superman* movie series is much like the movie itself: tired, pointless, and not much fun. For soundtrack collectors only. S.S.

OUT OF THIS WORLD. Boston Pops Orchestra, John Williams cond. 2001: *A Space Odyssey*; *E.T.*; *Alien*; *Star Trek, The Television Show*; *Twilight Zone*; *Star Trek, The Motion Picture*; and five others. PHILIPS 411 185-1 \$9.98, © 411 185-4 \$9.98.

Performance: **Grand entertainment**
Recording: **Very good**

William Livingstone's liner notes for this album, in which he gives a brief and worldly history of the symbolism of stars to mankind, also quote John Williams's opinion of the artistic impulse behind the people who create these huge screen epics of space travel: "Whatever opera was to the end of the nineteenth century, film is to the close of the twentieth. If we had a Wagner in this century, he would be a DeMille making his own pictures."

I agree with Williams. The Spielbergs and the Lucases use cinema not as intimate communication but as larger-than-life spectacle. And Williams's own scores for such films as *E.T.* and *Return of the Jedi*, both represented here, have a breadth and scale unusual in any twentieth-century composition. They succeed best when accompanied by screen images, but they stand quite well on their own, as the ten-minute suite from *E.T.* handsomely proves. Williams and the Boston Pops also run through the work of Jerry Goldsmith (*Star Trek, The Motion Picture* and *Alien*) and Stu Phillips (*Battlestar Galactica* and *Twilight Zone*) and include a fine new arrangement, by the composer, of Alexander Courage's main theme from *Star Trek, The Television Show*. The album has been very well produced by John McClure and is really grand entertainment in every sense. P.R.

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The Basic Repertoire

By Richard Freed

FOR some years critic Richard Freed, a contributing editor of *STEREO REVIEW*, has listened to all available recordings of the nearly two hundred symphonic works that form the essential core of orchestral programs and classical record collections, selecting those versions he considered the best. We have published his choices in a pamphlet, which we have updated annually, and we are now publishing his selections of the best current recordings of the Basic Repertoire in a regular series in the magazine. If you want the pamphlet, the most recent updating (1982) is available for \$1 (check or money order) and a stamped (40¢) self-addressed No. 10 envelope; send to Basic Repertoire, P.O. Box 506, Murray Hill Station, New York, N.Y. 10156. All recordings cited here are stereo LP's unless otherwise indicated by our usual symbols.

□ **PAGANINI: Violin Concerto No. 1, in D Major.** Michael Rabin and Sir Eugene Goossens left us a classic account, with discreet cuts and fabulous fiddling, that hardly shows its age (Seraphim S-60222, © 4XG-60222). Other fine uncut versions are those by Itzhak Perlman, with Lawrence Foster conducting (Angel S-36836, © 4XS-36836), and Boris Belkin with Zubin Mehta (London CS 7019).

□ **PROKOFIEV: Piano Concerto No. 3, in C Major.** Martha Argerich, with Claudio Abbado conducting (DG 139 239), seems to own this work, though Vladimir Ashkenazy, with André Previn conducting (London CS 6964, © CS5 6964), achieves parity by virtue of richer recording. Both the Browning/Leinsdorf version (Seraphim S-60224) and the Tacchino/Froment (Candide CE 31075, Vox © CT-2161) are fine buys.

□ **PROKOFIEV: Violin Concertos Nos. 1 and 2.** Isaac Stern's glowing remake with Zubin Mehta is most handsomely recorded (CBS ● IM 37802, © IMT 37802). Itzhak Perlman's, with Gennady Rozhdestvensky conducting, is in the same league (Angel ● DS-37800, © 4XS-37800), and barely a half-step behind is Kyung-Wha Chung's with Previn (London CS 6997). David Oistrakh's exceptional version of No. 2, with Alceo Galliera conducting, ought not to be overlooked (Seraphim S-60223).

□ **PROKOFIEV: Lieutenant Kijé Suite.** Reiner's incomparable performance still sounds bright enough to pass for new (RCA AGL1-3381, © AGK1-3381). Both Enrique Bátiz (Angel ● DS-37960, © 4XS-37960) and Michael Tilson Thomas (CBS M 36683, © MT 36683) are close runners-up, and Leonard Slatkin makes a strong case for using the optional vocal parts in his stunning performance (Vox VCL-9004X, © VCS-9004X).

□ **PROKOFIEV: Symphony No. 1, in D Major ("Classical").** Herbert von Karajan combines his expected elegance with unexpected affection and good humor (DG ● 2532 031, © 3302 031, © 400 034-2). Both the Previn recordings are first-rate (Angel S-37523, © 4XS-37523; RCA AGL1-2703, © AGK1-2703). Bernstein (CBS MY 36725, © MYT 36725), Ormandy (CBS M 31812, © MT 31812), and Bátiz (Angel ● DS-37960, © 4XS-37960) also show special sympathy.

□ **PROKOFIEV: Symphony No. 5, in B-flat Major.** Among current recordings, the choice lies between Karajan, here at his most intensely involved (DG 139 040), and Szell, white-hot, unsentimentalized, and handsomely remastered for the budget reissue (Odyssey Y 35923, © YT 35923).

□ **RACHMANINOFF: Piano Concerto No. 2, in C Minor.** The composer's own performances of his four concertos and the Paganini Rhapsody, with the Philadelphia Orchestra under Ormandy and Stokowski, retains more than historic value (RCA ● ARM3-0296), but up-to-date sound is preferable in such richly colored works. Ashkenazy's remake of the Second Concerto, with Previn conducting, is especially poetic (London CS 6774, © CS5 6774). Both the Wild/Horenstein (Quintessence PMC-7006, © P4C-7006) and the Simon/Slatkin (Turnabout QTV-34658, © CT-2148) show exhilarating brilliance and sweep.

□ **RACHMANINOFF: Rhapsody on a Theme of Paganini.** Earl Wild and Jascha Horenstein splendidly bring out both the demonic and lyrical elements (Quintessence PMC-7006, © P4C-7006). Ashkenazy and Previn make the most of the work's voluptuousness (London CS 6776, © CS5 6776). Digital remastering has added vividness to the Rubinstein/Reiner recording (RCA AGL1-5205, © AGK1-5205), and the Simon/Slatkin is especially rich sonically (Turnabout QTV-34658, © CT-2148). The composer recorded it with Stokowski (in the set with the piano concertos, RCA ● ARM3-0296) just after the premiere.

□ **RACHMANINOFF: Symphony No. 2, in E Minor.** Ashkenazy's feeling for Rachmaninoff, so apparent in his recordings of the concertos, is fully carried over to his conducting of this symphony with the Concertgebouw Orchestra (London ● LDR 71063, © LDR5 71063, © 400 081-2). Even more persuasive, perhaps, if only by a hair, are the sumptuous analog recordings by Temirkanov (Angel S-37520, © 4XS-37520), Ormandy (RCA AGL1-4365, © AGK1-4365), and Slatkin (in Vox SVBX-5152 or in knockout sonics on InSync © C4107). □

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STEREO REVIEW

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