MICROPHONING: Why it is crucial in producing quality recordings
PLUS: The case for minimal miking

EQUIPMENT TEST REPORTS: Genesis 210 Speaker System • Goldring G900E Phono Cartridge
Dual 741Q Record Player • Hitachi HA-4700 Integrated Amplifier • Soundcraftsmen RA7503 Power Amplifier

DISC SPECIALS: Johnny Mathis’ 25th Anniversary • Steeleye Span
Arlo Guthrie • Stevie Nicks • Janis Ian • The Swinging Madisons
Sibelius’ Fourth with Ashkenazy • Mahler’s Ninth with Karajan
Franck Organ Music • Mussorgsky Orchestral Showpieces • Strauss Waltzes

INTERVIEW: Rosemary Clooney – “I’ll sing as long as anyone listens”
Index Scan:
Plays first five seconds of each piece of music on tape to make cassettes as easy to preview as records.

Auto Reverse:
Plays both sides of tape without interruption so you don’t have to jump up to flip the cassette.

Real Time Counter:
Digital display tells you how much time is left on tape in minutes and seconds without need for a calculator watch.
Pioneer has transformed the cassette deck into a component that gives you a new dimension of control over it and the quality of the sound it records and plays. We've done it through a concept we call High Fidelity for Humans.

Electronic and mechanical engineering innovations make Pioneer's new CT-9R a pleasure to listen to.

To start with, Pioneer's engineers have developed a new material for the record and play heads on the CT-9R Cassette Deck. It's called RIBBON SENDUST and it's made with laminations 4 to 5 times thinner than conventional Sendust heads. This virtually eliminates eddy currents that interfere with high frequency response. It also provides a significant improvement in signal-to-noise ratio with extended high frequency response; plus a 3- to 5-dB increase in undistorted headroom at high frequencies. With metal tape the frequency response is an extra-wide 20 Hertz to 22k Hertz. The CT-9R's tape transport system is an incredibly precise dual capstan system with three direct drive motors. The result is an infinitesimal wow and flutter of 0.03%.

More importantly these features allowed our engineers to equip our CT-9R Cassette Deck with a super intelligence: a microprocessor that automatically adjusts bias, level and equalization to maximize the performance of the tape you're using. And this same microprocessor technology makes it possible for the Pioneer CT-9R to offer you an exclusive combination of human engineering features.

Human engineering makes Pioneer's CT-9R a pleasure to live with.

Anyone who records on tape knows how frustrating it is to run out of tape before running out of music. That's why the CT-9R has a Real Time Counter with a digital display to show you how much recording time is left on your tape. Press a button and the same display turns into a Digital Tape Counter. There's also a Blank Search feature that speeds through a partly recorded tape to find the unrecorded section and even leaves a five-second margin between the last song and what you intend to record. To find your favorite song, on a recorded tape, touch Index Scan and the CT-9R will play the first five seconds of each piece of music on the tape. To repeat a song, simply press Music Repeat and listen. The Pioneer CT-9R will even play both sides of a cassette automatically. And the Music Search control automatically plays the beginning of the next song on the tape. There's even an optional remote control.

Now if you think all this sounds too good to be true, visit your nearby Pioneer dealer. You can see and hear the CT-9R for yourself, as well as an entire line of new Pioneer cassette decks. And then if you're wondering why we don't give you less features for the money like others seem to do, it's because we consider that inhuman.
NO OTHER CASSETTE TECHNOLOGICAL FEAT.

Ribbon Sendust Heads:
Pioneer's exclusive tape head material provides superb signal-to-noise ratio.

Advanced Microprocessor:
Automatically determines precise bias, Dolby calibration level and record equalization for each tape.

Three DD Motor Tape Transport:
Three direct drive motors provide exceptional record and play accuracy.
DECK HAS ALL THESE FEATURES AT ANY PRICE.
Five Important Reasons To Own This New Realistic Digital Synthesized Receiver.

1. The microprocessor controlled, digital synthesized, quartz locked tuner.
Don't let the technical terms frighten you. Simply put, the tuner is computerized. Incredibly accurate. Very easy to use. Even easier to love. When you tune this new Realistic, soft-touch buttons take you to the exact center of the channel you want. Select the search mode and gain instant access to all 109 AM and 99 FM broadcast frequencies. Or choose the automatic mode and stop only at stronger stations. Either way, a triple muting system silences tuning noise, and a quartz crystal reference corrects the circuit over 11 million times each second. Two major causes of distortion — drift and tuning error — are eliminated. With the STA-2250 you get a clean, uncluttered front panel featuring a six-step LED signal strength readout and a bright LED frequency display you can easily read from across a room.

2. The programmable 16-station memory.
You can also store eight AM and eight FM stations in the computer memory for instant pushbutton recall. Adding or changing memorized stations is easy, and memory contents are protected for one hour, if AC power fails, or if you need to unplug the receiver.

3. Power and protection.
The STA-2250's audio amplifier delivers a powerful 50 watts per channel, minimum rms into 8 ohms, from 20-20,000 Hz, with no more than 0.02% total harmonic distortion. You get complete protection against overdriving, overheating and speaker wiring shorts. The sophisticated muting system even protects your speakers and ears from "thumps" and "pops" when you select sound sources.

4. The heart of a complete system.
The STA-2250 is a very versatile control center. Use the 40-step volume/balance control and 11-step bass, treble and midrange controls to adjust the response exactly the way you want it. You also get A-B-Both speaker switching, inputs and dub/monitor controls for two tape decks, hi and lo filters and more. All enclosed in a walnut veneer (not plastic or metal) cabinet.

5. We build it. We back it.
Engineering and manufacturing the STA-2250 in our own factory helps us to price it lower, and also eliminates buck passing when it comes to quality control and service. As with every Realistic stereo receiver, you get a two-year parts and labor limited warranty, honored wherever you see the Radio Shack sign. So if you are starting or upgrading a stereo system, audition the STA-2250 at one of our 7500+ locations today. Once you compare its effortless tuning and flawless musical performance with receivers costing hundreds more, you'll know why we put reason number six on a separate line...

The Amazing Realistic STA-2250:
Only $429.95* at

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THE NATIONWIDE SUPERMARKET OF SOUND®

*Retail price may vary at individual stores and dealers.
The Equipment

NEW PRODUCTS
Roundup of the latest audio equipment and accessories

AUDIO QUESTIONS AND ANSWERS
Power Indicators, Car-stereo Distortion, Individual Hearing

CAR STERO
New Speakers and Accessories at CES '81

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Pitch Problems; Tape Contact; What, No Bias?

TECHNICAL TALK
What Price Distortion?

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Stevie Nicks: "Bella Donna"
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The Strauss Family: Waltzes
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The Music

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BULLETIN

WILLIAM LIVINGSTONE

SPEAKING OF MUSIC

WILLIAM ANDERSON

LETTERS TO THE EDITOR

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ADVERTISERS' INDEX

COVER: Design by Borys Patchowsky; photo by Bruce Pendleton. The musicians are (wooden) Indian folk carvings from the collection of Technical Director Larry Klein.
Protect Your Stereo System and Maintain Its Sound

The D4™ Record Care System
The highly active D4 fluid and unique directionally fibered pad removes harmful microdust and debris that can cause permanent damage to your recordings.

The SC-2™ Stylus Care System
SC-2 fluid with the exclusive nylon fibered brush effectively loosens and wipes away stylus contamination, a major contributor to record wear.

For a free copy of our “Guide To Record Care” write to Discwasher.

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CIRCLE NO. 14 ON READER SERVICE CARD
A TAX ON BLANK TAPE AND RECORDERS to help offset losses to the record industry resulting from home taping has been proposed in Great Britain, but the government has rejected it for the present. Maintaining that the British Phonographic Institute and other interested parties have failed to present a convincing case for a tax on audio and video recorders and on cassettes and blank tape in other forms, the government has left the subject open for debate. Industry sources in Britain estimate the daily loss from home taping to be as high as $2 million. At present Germany has a tax on recorders; Austria taxes tape.

ROLLING STONE BASSIST BILL WYMAN has become the first member of the group ever to score a hit on his own. His new single Si Si Je Suis un Rock Star on A&M has gone Top 40 in England. A&M America will probably release the record in this country to capitalize on the current Stones album ("Tattoo You," Rolling Stones COC 16052) and tour, but a date has not been set.

TRUE DIGITAL PLAYBACK FOR HOME USE is brought one step closer by the single-chip 16-bit digital-to-analog converter developed by Analog Devices of Norwood, Mass. Sold for $30 each to manufacturers who buy in quantity, the device has specs that indicate a distortion level of +0.015 per cent.

BETTER SOUND QUALITY FOR VIDEODISCS was the concern of Ruggles, Reber & Associates when they recorded jazz performances by noted trombonist Bill Watrous and his Refuge West Big Band. The company taped the soundtrack by using digital-audio and multitrack analog machines synchronized to the video recorders. Release is expected from VHD Programs, Inc., in the VHD videodisc format.

GIVE THE GIFT OF MUSIC FOR CHRISTMAS is the record industry's message for fall, and special Christmas albums are already being released. RCA Red Seal has "Christmas with Renata Scotto" and "Christmas with Canadian Brass," both recorded at St. Patrick's Cathedral. Also from RCA (not on Red Seal and not recorded at St. Pat's) is "Christmas with the Chipmunks." A Kenny Rogers Christmas album is scheduled for October on the EMI America/Liberty label. CBS Masterworks is releasing five Christmas albums this month: soprano Elly Ameling with pianist Dalton Baldwin, flutist Jean-Pierre Rampal and guitarist Alexandre Lagoya conducted by Michel Legrand, tenor Plácido Domingo accompanied by the Vienna Symphony, Caravelli (Europe's answer to Mantovani), and the Mormon Tabernacle Choir. More to come.

CONDUCTORS: Beginning in the season of 1981-1982, Michael Tilson Thomas will be the principal guest conductor of the Los Angeles Philharmonic. His first concert in this capacity will take place November 28. Starting in September 1983, Sir Colin Davis will become principal conductor of the Bavarian Radio Symphony Orchestra in Munich, retaining his positions as musical director of Covent Garden in London and principal guest conductor of the Boston Symphony. John Williams completed his two-year contract as conductor of the Boston Pops at the end of July, but at press time he had not decided whether he would renew.

DIGITALLY RECORDED LIVE PERFORMANCES from the San Francisco Opera will be broadcast on Saturday evenings by National Public Radio stations from October through December. The series begins with Rossini's Semiramide with Montserrat Caballé and Marilyn Horne conducted by Richard Bonynge on October 3. Massenet's Manon with Reri Grist and Stuart Burrows conducted by Julius Rudel follows on October 10 and Shostakovich's Lady Macbeth of Mtsensk with Anja Silja conducted by Calvin Simmons on October 17. Dame Joan Sutherland will sing the title role in Lehár's Merry Widow conducted by Richard Bonynge on October 24, and Bizet's Carmen will be performed on October 31 with Teresa Berganza conducted by Kurt Herbert Adler. Check NPR stations for exact times.
"INTERIM TECHNOLOGY"

"There are some people," my father used to say, "who would complain if they were being hung with a brand-new rope." And there are others, I would have to add, who make it an invariable practice to holler before they're hurt. And so we have already been hearing quite a bit of hollering from some audiophile quarters about CBS' "brand-new rope," the CX process for making quieter phonograph discs described in these pages in July, even though very little of the encoded software (and even less of the hardware—see last month's test report on the Sound Concepts SX-80 CX adaptor) has reached record retailers yet.

Judging from the latest record releases, it appears that digital—digital recording, that is—is already well on the way to becoming the industry's preferred technology, at least for classical music. The arrival on the market of "true" digital—digital playback, that is—has been delayed indefinitely awaiting the birth, somewhere in California's Silicon Valley perhaps, of the monolithic "chip" that will bring the price of this new disc format within the reach of the average consumer. In the meantime, business has not been exactly booming for the record industry, and CBS evidently decided to pep up the party by introducing an interim technology, one that they obviously hope will sell a few records, still some of the mounting clamor about present record quality, and perhaps give their sizable investment in analog pressing plants a little longer lease on life (they would have to be entirely revamped for the production of all-digital discs, of course).

Criticisms of this action run along predictable lines: it is a cynical exercise in "planned obsolescence," it is an effort to foreclose on a superior technology, and it falls short of delivering the sonic perfection that is every audiophile's right and due. But whether they spring from honest paranoia or disingenuous technological snobbery, the charges hold little water. First, on the issue of planned obsolescence, one has to ask how such a scheme could conceivably profit CBS, for they are licensing the system without royalties to other record manufacturers; RCA and Warner Bros. have already indicated their intention to participate. The decoding circuit, moreover, is a relatively simple one, and its low cost will in time disappear in the price of whatever electronic hardware includes it. (And too, analog techniques will continue to be used long after the arrival of "true" digital, so CX should prove a boon to the many smaller record companies that cannot afford the more expensive technology.)

Second, though digital techniques can doubtless produce superior sound, they are not nearly as close to reaching the market. How long should we wait for this "elegant," "ingenious," but hardly simpler solution? (And if we wait for it, why not for the even more elegant photographic-film system coming up behind—see "Audio/Video News," February 1981.) Digital foreclosure is unlikely: we are already halfway there, the research and development money so far spent dictates no retreat, and there is still that attractive connection to videodisc technology—a single turntable could, after all, play both.

Third, though the CX system may not be perfect, it is certainly better than what we have. The end is still the best sonic reproduction we are willing to afford, and the means are incidental. We do not listen to "analog" or "digital," or (to return to an earlier technological squabble) to "matrix" or "discrete." We listen to music, and if someone offers to deliver it with a little less of the noise we've suffered ever since Edison, we shouldn't really care too much how he does it.
Any loudspeaker system this flat deserves a fair hearing.

If you like the flatness of our L112 frequency response curve (above), you'll be even more impressed by the smooth, natural uncolored sound that goes with it.

The L112 is a perfect example of JBL's advanced engineering design philosophy at work. Lasers, holography, computers and the human ear interfacing toward one end: The flattest, most accurate sound reproduction in JBL bookshelf history. The kind of pure, uncompromised sound quality that's made JBL the longstanding choice of audio professionals worldwide.

The overall performance quality of the L112 bookshelf system is the result of many precision-engineered components working together to achieve sound so natural there's no sense of a speaker at all—only the music.

Lower. Higher. Faster, too. The L112's Symmetrical Field Geometry (SFG) 12" woofer contributes cleaner, deeper, more powerful bass. A laser-developed 1" dome tweeter adds more high frequency detail. And a new High Resolution Dividing Network delivers superior transient response.

Crafted in the U.S.A., the L112 is also a beautiful example of JBL's longtime commitment to fine craftsmanship and unrelenting quality control.

Go see the audio specialists at your nearest authorized JBL dealer and listen to the L112 bookshelf system for yourself. For the name of the dealer nearest you, write: James B. Lansing Sound, Inc., 8500 Balboa Boulevard, P.O. Box 2200, Northridge, CA 91329.

Comparison Analysis now available. Recently, we conducted a very enlightening series of performance tests comparing the L112 against several competitive speakers. For a copy of the documented results, as well as reprints of recently published L112 reviews, please write us, attention: L112 Comparison Analysis.

CIRCLE NO. 22 ON READER SERVICE CARD
LETTERS TO THE EDITOR

Pavarotti

It would seem that in the August 1981 issue of Stereo Review, Messrs. William Livingstone and George Jellinek mutually decided, "Let's sock it to Luciano Pavarotti." Mr. Jellinek describes the Pavarotti/Joan Sutherland Traviata as "disappointing" and calls Pavarotti's portrayal of Alfredo "routine" (page 99-100), and Mr. Livingstone puts down Maestro Pavarotti in "Classical Music Briefs" (page 91) for his "constant efforts to upstage soprano Judith Blegen in the Met's performances of L'Elisir d'Amore this year.

I agree with Mr. Jellinek that Ms. Sutherland's enunciation has always left much to be desired, but, still, I cannot believe that artists of the prestige and caliber of Pavarotti and Dame Joan could ever put out a "disappointing" record. As for Mr. Livingstone's comments, while I do not wish to take anything away from the enormously gifted Ms. Blegen (who I feel has become the world's leading lyric/coloratura soprano now that Beverly Sills has retired from singing), I feel that Pavarotti is perfectly capable of upstaging anybody he sings with, even if he should happen to be singing offstage. It is also apparent that Mr. Livingstone has forgotten that Pavarotti's role in L'Elisir, the peasant Nemorino, is the central character of the opera and therefore should be allowed to hold center stage. Given Pavarotti's magnificent voice and his reputation in the world of opera, I say, more power to him!

ALLEN JONES
Port Arthur, Tex.

William Livingstone replies: An artist's prestige does not prevent him from making a disappointing record, but on the contrary probably makes it harder for him to satisfy the public. "To upstage" means to distract the audience's attention from another performer improperly. Nemorino may be the most important character in L'Elisir d'Amore, but the opera makes little sense musically and dramatically if the soprano is not permitted to sing her arias without distracting horseplay from the tenor. I don't think Pavarotti's voice and reputation exempt him from common courtesy to his colleagues, but he may well agree with Mr. Jones that it is impossible for him ever to make a disappointing album and that he is entitled to hog center stage at all times. There was no collusion between Mr. Jellinek and me, but Pavarotti does make rather an easy target these days.

Listening Tests

I think the "golden ears" chosen for August's listening tests on $100 speakers must have left those ears in their glass cases at home—or else the test procedure was faulty. When there are so many large discrepancies in the rankings (for example, the Technics SB-L50 was ranked most preferable by two judges and least preferable by three), something is wrong and the test should be deemed invalid. Here are some suggestions to get more credible results:

1. Decide on uniform criteria before the test. (Continued on page 10)

No.

Tchaikovsky Trio

In an August review, David Hall suggests that the Tchaikovsky Trio, Op. 50, at times calls for "an orchestral canvas." Frederick Stock, the great conductor of the Chicago Symphony Orchestra for some thirty years, did arrange the trio for full orchestra, and it was performed by the Chicago Symphony with great success in Chicago, Milwaukee, Detroit, and elsewhere. The score and parts are available at local music stores.

RICHARD ALEXANDER
Glen Head, N.Y.

STEREO REVIEW
In 27 years, most of the world's hi-fi manufacturers have copied our woofers, our tweeters, and just about everything else in our speakers. Except the sound.

We invented the acoustic suspension woofer, and they copied that. We invented the hemispheric dome tweeter, and they copied that. What they can't copy is the sound whose bass Stereo Review calls "deeper, flatter and cleaner than that of any other we have tested." The sound High Fidelity says "will satisfy the discriminating listener long after others have lost their charm." See your local AR dealer and hear for yourself. Stereo Review on the AR 9, July, 1978. High Fidelity on the AR 28s, July, 1981.

Hear what you've been missing.
in residence at Grinnell College in Grinnell, Iowa. The trio was, however, formed at California State University in Fullerton, which is on the West Coast. Karl Oldberg Santa Monica, Calif.

Dubbing Ethics
- I am a music lover. I collect music in all forms. But I have little or no sympathy for the blues that record labels are crying about music lovers illegally dubbing music. I'm not concerned primarily with the costs but with the availability of the product. I can utilize discs, cassettes, or eight-track cartridges, and no sooner do I see a new issue of interest in the Schwann catalog than I attempt to get it. After many months of the item's being "on order," I am told that it has been cut out. The catalog life of records and tapes seems to get shorter and shorter as we grind out more.

I realize that a store can stock only so much and that some items I might want are out of the ordinary, not in the mainstream of what today constitutes popular music. So I resort to dubbing as a last resort—but only as a last resort. For instance, this very month I had arranged with friends to borrow two old and long out-of-print Capitol recordings so I could dub them, but I learned that Capitol has just reissued the recordings. Now if they will leave them in print long enough for me to be able to buy copies, I will buy them and then dub my own copies so as to save wear on the discs.

Karl Oldberg Santa Monica, Calif.

The Byrds
- Steve Simels has always been my favorite Stereo Review writer, and I was pleased with his kind remarks about the Byrds in the August "Popular Music Briefs." Although I'm only twenty-one, I have been a Byrds fan since long before I even heard of Tom Petty. Consequently, I noticed an error on Mr. Simels' part: he said the song "Why" had never been previously issued on an American album, but it's the closing track on "Younger Than Yesterday," released in 1967.

Tommy Naugher Piedmont, Ala.

Steve Simels replies: We're both right. The version of Why mentioned in "Briefs" was recorded in 1966 at the sessions for the "Fifth Dimension" album and was originally released as the B-side of Eight Miles High. It is considerably harder-edged and more aggressive than the 1967 remake.

Disc Packaging
- I would like to second James Green's request (January "Letters") to the record companies to switch back to paper record sleeves. Whereas Mr. Green's problems with the currently fashionable plastic-lined sleeves stem from the hot and humid tropical climate of Puerto Rico, which he says causes the plastic to bleed and stick to his records, my problems involve static caused by the dry air in the western United States, compounded by the abundance of all types of dust in the environment. Removal of most records from their plastic sleeves engenders a tremendous static charge, which quickly results in the attraction of an abundance of dust particles to the record surface. This problem is especially pronounced with many European records, which in the name of quieter disc surfaces are made of vinyl with little or no antistatic compound mixed in. I have had to put almost as much money into antistatic remedies as I have into records, and I have therefore pirated as many paper inner sleeves as I could get.

Douglas E. Rollins Ogden, Utah

- I have a complaint not about the quality of record albums today but about the quality of album jackets, which is seldom written about. Today's album jackets have poor storage qualities. Record companies insist on giving us fancy covers that appeal to the consumer what they really want: better quality. "Less frills." Record companies insist on giving us fancy covers that appeal to the consumer what they really want: better quality. "Less frills."
THE LEADING AUTO SOUND SPECIALIST SPEAKS OUT ON SPEAKERS.

AUTO SOUND IS DIFFERENT THAN HOME SOUND. Nobody knows that better than Delco. We've been building sound systems for GM for over 44 years. In that time we've built over 200 million speakers. And pioneered many auto sound firsts including: the first solid-state car radio, the first AM/FM car stereo and the first in-dash radio/tape player. We've learned a lot.

THE LAST THING YOU WANT IS STATIC. A car radio is surrounded by numerous components that generate static. Delco builds impulse noise blankers into all our Delco-3M stereo sound systems to help minimize interference.

HOME STEREO SPEAKERS LIVE IN A QUIET ENVIRONMENT. Car speakers live with wind and road noise. Delco compensates for their effect on high- and low-frequency sound reproduction when designing auto sound systems.

SPEAKERS SHOULD BE LISTENED TO ON THE ROAD. Not in the showroom. So when you buy your new GM car or truck ask your dealer to demonstrate a Delco-GM sound system. Nobody knows the inside of GM vehicles quite like the automotive sound specialists at Delco Electronics Division of General Motors Corporation.

Delco GM
MILES AHEAD IN SOUND EXPERIENCE.
SA-X. HIGH BIAS IS RICHER FOR IT.

The greatest honor a cassette can receive is to be held in higher esteem than the one now setting the high bias standard. SA-X has already gone beyond SA in frequency response, sensitivity, and resolution. It was intended to. With its ultra refined dual layer of Super Avilyn and the Laboratory Standard Mechanism, nothing less was possible. TDK believes sound reproduction should have no set barrier. No limit. For us, high bias was a limit to be surpassed. SA-X has won three international audio awards to date. It will no doubt win others.

But we take awards philosophically. They represent our continuing effort to create the machine for your machine. In that, we could not be happier with SA-X.
Flat Woofers in Phase Technology Loudspeakers

Phase Technology's line of loudspeakers employs 6- and 10-inch woofers with solid high-density expanded-polystyrene flat pistons. The manufacturer states that the acoustic centers of all the drivers in a system are aligned at the front surface of the enclosure to aid in phase alignment of the speaker's output.

The top model in the series, the PC-100 (right), is a four-way phase-coherent system with two 10-inch solid-piston woofers, a 3-inch soft-dome midrange driver, a 1½-inch soft-dome upper-midrange unit, and a 1-inch soft-dome tweeter. Frequency range is 24 to 20,000 Hz, and recommended amplifier power is from 50 to 200 watts. The cabinet is solid walnut with walnut veneer. Dimensions are 14 x 42½ x 8 inches. Price: $550. Phase Technology Corp., Dept. SR, 101 North Park Street, East Orange, N.J. 07017.

Circle 120 on reader service card

Floor-standing Speaker from Mirage Acoustics

Mirage Acoustics' SM-1, a two-way system, has an optional stand that was part of the original design concept. The Model T-1 stand precisely positions the SM-1 so that the floor acts as an acoustical extension of the speaker. The system's crossover is a first-order design rolling off at 6 dB per octave, since in the view of the manufacturer a crossover that rolls off any faster degrades both a speaker's time characteristics and its transient response. The tweeter employs a soft-textile dome surrounded by a felt ring. This ring is claimed to reduce diffraction, improve imaging, and smooth the high frequencies. The woofer is made of filled polypropylene. Prices: SM-1, $329; T-1, $29.95. Mirage Acoustics, Unit One, Dept. SR, 21 Progress Avenue, Scarborough, Ontario, Canada M1P 4S8.

Circle 120 on reader service card

Dual's Three-head Cassette Deck

The Dual C-844 cassette deck has a "Direct Load and Lock" system that eliminates the need for a door between the user and the cassette compartment, the cassette is slipped directly into place and can be removed at any time, even when the tape is in motion. Photocell circuitry in the cassette compartment stops the transport when a cassette is grasped. The separate record and play heads are mounted in a combined housing. Dolby-B and -C noise-reduction systems operate during record and playback. Meters show the level of the equalized signal reaching the tape heads, and four peak-level LEDs show when each of four tape types has been overloaded.

In addition to the standard 1½-ips cassette speed, the C-844 also offers 3½-ips play and record for extended frequency response and improved signal-to-noise ratio. Rated response with all tape types is 20 to 24,000 Hz ± 3 dB at the faster speed. An optional infrared remote control is available. Price: $700.

Circle 121 on reader service card

Denon's "Class-A" Integrated Amplifier

The Denon PMS-950 is an 80-watt-per-channel amplifier using "pure class-A circuitry" throughout. It has two moving-coil pre-amps, two moving-magnet pre-amps, a separate record-out selector, and a headphone amplifier that is adjustable for different headphone impedances. Other features include bass and treble controls, a direct-couple switch, and switchable infrasonic and loudness filters. Harmonic distortion is 0.004 per cent or less. Signal-to-noise ratios of 90, 74, and 108 dB, respectively, are specified for the moving-magnet phono stages, the moving-coil phono stages, and the auxiliary stage. RIAA equalization is within 0.2 dB of standard. The PMS-950 weighs about 35 pounds. Price: $995.

Circle 122 on reader service card

Ortofon's Improved Moving-coil Cartridge

Ortofon's MC 10 Mk II moving-coil cartridge from Ortofon has the same "Wide Range Damping" system already incorporated in the MC 30 and MC 20 Mk II cartridges. The unit's low equivalent tip mass of 0.5 milligram results from the design of its cantilever and its small nude elliptical diamond stylus. Frequency response is given as 20 to 20,000 Hz ± 1.5 dB. Output voltage at 1,000 Hz with a 5-cm/sec groove velocity is 0.09 millivolt. The cartridge's internal impedance is 3 ohms. Recommended load impedance is at least 10 ohms, recommended tracking force 1.5 grams. Weight is 7 grams. Price: $195.

Circle 124 on reader service card

(Continued overleaf)
HERE'S A TIP TO MAKE YOUR RECORDS LAST LONGER.

Unlike some magnetic cartridges, Empire's moving iron design allows the diamond stylus to float free of its magnets. This imposes much less weight on the record surface and insures longer record life.

EMPIRE PHONO CARTRIDGES

THERE'S A NEW SOUND WAITING IN YOUR SYSTEM

CIRCLE NO. 16 ON READER SERVICE CARD

Celestion Industries' Three-way Loudspeaker

The Celestion Ditton 300 has a 1-inch dome tweeter, a 5-inch cone midrange, and a 10-inch woofer with a polyvinyl-chloride surround. Anechoic frequency response is given as 52 to 20,000 Hz ± 3 dB. Crossover frequencies are 650 and 4,500 Hz. Nominal impedance is 8 ohms; minimum amplifier power is 20 watts per channel. The Ditton's sensitivity is 87.5 dB sound-pressure level measured at 1 meter with a 1-watt input. Dimensions are 24¾ x 13¼ x 10¼ inches; weight is 30 pounds. Price: $400.

Circle 125 on reader service card

Sanyo's Low-price, Full-feature Cassette Deck

Sanyo's PLUS series D56 cassette deck offers metal-tape capability, Dolby-B noise-reduction circuits, full-logic soft-touch transport controls, and an automatic music-selection system (AMSS) that searches for pauses between recorded selections. Other features include two-color LED level indicators, a recording-mute control, timer/standby switching, a headphone output, and two microphone inputs. Price: $239.95.

Circle 126 on reader service card

Acoustical Physics' Satellite Speakers

The Acoustic Image loudspeaker system is a satellite unit designed to be used with any available subwoofer. The manufacturer says that the speakers have optimized time-domain transient responses; their small size is said to minimize "time-domain dispersion" and "near-field time-delay distortion caused by diffraction effects." Frequency response is given as 60 to 22,000 Hz, impedance as 8 ohms. Power-handling capability is 40 watts when the speakers are used by (Continued on page 16)
THE ONLY THING MORE REVOLUTIONARY THAN AKAI'S NEW GX-77 IS THE TAPE IT PLAYS.

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

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

For some very sound reasons.

Numbers don't lie.

And what the numbers are saying is this. You don't have to sacrifice performance for economy. Not with a GX-77 and "EE" tape. Because at an efficient 3¾ ips, you'll still get the same frequency response, S/N ratio and dynamic range of conventional tape played at 7½ ips.

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

There's sound engineering, too.

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

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

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

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

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

We'd hate to start the revolution without you.

The specs are:

<table>
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<th>AKAI GX-77 with:</th>
<th>Dynamic Range</th>
<th>Frequency Response</th>
<th>S/N Ratio</th>
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<td>EE Tape (3¾ ips)</td>
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<td>Conventional Tape (7½ ips)</td>
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<tr>
<td>EE Tape (7½ ips)</td>
<td>70 dB</td>
<td>25-33000 Hz</td>
<td>95 Hz</td>
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It is hardly conceivable that a small, inexpensive, lightweight cube such as this could deliver as much clean power as any but a few of the largest conventional amplifiers on the market—but it does!

Julian Hirsch, Hirsch-Houck Labs

The Carver M-400 Magnetic Field Amplifier

The cube that impressed Julian Hirsch is indeed small: less than 7 inches. And it is very light: less than 10 pounds. And very inexpensive: suggested retail price, $399.

As for its clean power: 201 watts per channel in stereo and 500 watts mono! That, of course, is RMS into 8 ohms, from 20 to 20kHz with no more than 0.05% total harmonic distortion.

As for its sound, Leonard Feldman reported in Audio: “Music reproduction was superb and completely free of any false bass coloration or muddiness... none of that brittle quality that one often detects from amplifiers that are beginning to strain.”

In short, the M-400 is musical and accurate.

And now here's good news for everyone with a receiver. The M-400 can be added to it easily—with our new Z-1 coupler. So if you now have a 20-watt receiver, it can be a 201-watt (per channel) receiver!

For literature, test reports and nearest Carver dealer, circle number below. For faster response, write directly to us.

Carver Corporation
P.O. Box 664, 14304 N.E. 193rd Place
Woodinville, Washington 98072

Energy Loudspeaker's Model Four Has Isolated Woofer

The Model Four from Energy Loudspeaker Corp. is a three-way floor-standing unit. The woofer chassis is mounted on an isolator that separates the front baffle from speaker-chassis vibrations and is said to eliminate a “boxy” sound quality in the 100- to 600-Hz region. A passive radiator handles the speaker's output from 15 to 50 Hz. The 24-dB-per-octave crossover design, constructed with more than twenty-eight components per speaker, is said to eliminate radiation-lobe errors over a large listening area and to give a solid stereo image. The midrange driver is fluid cooled and has a polypropylene cone.

Overall frequency response is given as 26 to 22,500 Hz ± 3 dB. System resonance is 26 Hz. Nominal impedance is 4 ohms; recommended amplifier power is from 30 to 300 watts per channel. Sensitivity is a 95-dB sound-pressure level at 1 meter with a 2.83-volt input. Finish is oiled-walnut veneer. Dimensions are 41½ x 17¼ x 14½ inches. Price: $700. Energy Loudspeaker Corp., Dept. SR, 161 Don Park Road, Markham, Ontario, Canada L3R 1C2.

Heco Tower Speaker Has Integral Subwoofer

The Heco Lab 3 is a five-way speaker system distributed by Osawa that has six 1-inch tweeters, four 2-inch midrange drivers, an 8-inch woofer, an upward-firing 13-inch subwoofer, and a supertweeter. There are contour controls for super-high, high-, and middle frequencies, plus a bass-equalizer control. Frequency response is given as 20 to 40,000 Hz ± 2 dB. Sensitivity is 89 dB sound-pressure level at 1 meter with a 1-watt input. Speaker impedance is switchable between 4 and 8 ohms. Recommended minimum amplifier power is 40 watts. Dimensions are 48 x 18 x 20 inches, weight 140 pounds. The driver positions are mirror-imaged for each pair of systems. Price: $2,450 each. Osawa & Co., Dept. SR, 21 Harbor Park Drive, Port Washington, N.Y. 11005.

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 overseas affect the price of merchandise imported into this country. Please be aware that prices quoted in this issue are therefore subject to change.
Let's not kid ourselves. All 3-head recorders are not the same. One perusal of specifications—one audition in the showroom—will establish that! We'd like to explain the difference—the “Discrete” difference—in Nakamichi 3-head technology.

Separate record and playback heads should produce wider frequency response with less noise and distortion than a combination head, but all too frequently they don't. Why? Because having separate record and play gaps introduces a new problem—azimuth misalignment—that rapidly diminishes high frequency response, destroys phase coherence, and impairs stereo imaging. Most 3-head decks employ “sandwich” heads in which record and playback cores are housed in the same structure. Even with careful quality control, the best that can be achieved is mechanical parallelism between the gaps, and, once the head is fabricated, there is no way to adjust one gap with respect to the other. Since mechanical parallelism does not insure magnetic alignment, it is no wonder that “sandwich” heads fail to live up to their potential.

From the time we created the world's first 3-head cassette recorder in 1973, we have employed special “Discrete Head Technology” Nakamichi heads are mechanically as well as magnetically independent so that record and playback gaps can be magnetically aligned after fabrication. For our best models, we developed a unique Auto Azimuth Alignment system to insure perfect alignment on each and every cassette despite eccentricities in cassette housings. With Auto Azimuth Alignment, a precision phase comparator detects the misalignment error and activates a servo motor to pivot the record head until the error disappears. Within seconds, perfect azimuth alignment is achieved, and the full potential of the cassette system is realized.

The advantages of the Discrete 3-Head system are so important that we offer several recorders featuring this technology without the monitoring feature normally associated with a 3-head design. At less cost, these recorders provide the same perfection that our “monitoring” recorders do.

As you can see, there is a difference among 3-head recorders. Why not hear that difference now—the “Discrete” difference—at your Nakamichi dealer.

To learn more about Nakamichi's unique technology, write directly to: Nakamichi U.S.A. Corporation, 1101 Colorado Avenue, Santa Monica, CA 90401.
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Power Indicators

Q. My receiver is equipped with fluorescent power indicators that are marked "referred to an 8-ohm speaker load." However, they read the same whether the speakers are connected or disconnected and whether or not my headphones are plugged in. Since each of these conditions causes such different load impedances and power demands, why do the indicators always read the same?

ERIC DEVIRGILIS
Waverly, Pa.

A. Almost all modern amplifiers operate as "constant-voltage" sources within their ratings. As an explanatory example, let us say that a 1-volt input signal produces a 20-volt output at the speaker terminals; this is the equivalent of 50 watts across an 8-ohm load. Now let's say we substitute a 4-ohm load. The same 1-volt input will produce the same 20-volt output, but Ohm's Law tells us that halving the resistance doubles the power. So we now have 100 watts output, assuming that the amplifier is capable of supplying double the current into the load. A 16-ohm load would draw 25 watts of power.

What it all comes down to is that your amplifier is behaving normally. Its fluorescent display is responding only to the voltage level at the output terminals, not to the current supplied, which varies with the load. Therefore, within reason, the output display will always read the same level of output for a given level of input, but the calibration markings will be "accurate" only when the load is a reasonable approximation of 8 ohms.

Car-stereo Distortion

Q. I recently bought a new stereo system for my car, installed it myself, and ran into a strange problem. The radio-cassette unit that I put in didn't seem to be able to play loud enough, it had audible distortion at normal levels, and it oscillated when pushed hard. I took the unit back to my dealer, who claimed he checked it out and found nothing wrong. I insisted that he give me a new unit, and guess what?—it works no better than the first one. Do you have any idea what's wrong?

MARVIN KALISH
Mt. Vernon, N.Y.

A. This is an easy one to diagnose, if only because I went through much the same sequence of events myself recently. Almost certainly your problem is not caused by a defective car-stereo receiver; the fault is most likely somewhere in the wiring of your speakers. At some point there is a contact between an uninsulated part of the speaker wiring and the grounded car chassis, and that is having an unhappy effect on the amplifier section of your receiver.

To locate the problem, first disconnect all the speaker leads from your car-stereo receiver. Then, if you have an ohmmeter, measure the resistance between each pair of speaker leads and the car chassis. A correct reading would be 5 ohms or so between each pair of speaker leads and no reading at all (infinite resistance) between either lead and the car chassis. If you read 5 ohms or so between a speaker lead and the car chassis, that means that the other lead of the pair is grounded. If you read 0 ohms between a lead and the car chassis, that means that you've found the grounded lead.

If you lack an ohmmeter, a flashlight battery (a D cell) can serve as well (see illustration). Touch a pair of speaker wires (A and B) across the battery's terminals. The speaker at the other end of the wire will produce a small "thump" at the moment of contact. Now, hold wire B to the bottom of the battery and touch the positive tip of the battery to a chassis ground. If the speaker is silent, try it with wire A held to the battery. A speaker that remains silent with either (Continued on page 20)
TAKE MICRO-VIDEO WITH YOU ON YOUR NEXT TRIP.

The Technicolor™ micro-video recorder adds new meaning to the word "portable." It's simply the world's smallest, lightest, simplest. Because of its remarkable compactness, it goes virtually anywhere. A true portable.

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CIRCLE NO. 54 ON READER SERVICE CARD
You're missing a lot of pleasure from your personal stereo cassette player or radio, if you can only listen with headphones. A Mura Steppin' Out portable amplified stereo speaker system converts any personal player into big, room filling stereo sound. Simply clip on your personal player, plug in the stereo jack and you're all set to go public and share those great sounds with others. Steppin' Out operates on four "C" batteries (or 6V DC adaptor), so you can enjoy it anywhere outdoors. Indoors, Steppin' Out is the perfect second stereo system. Going away? Take your Steppin' Out along. It's ideal for college, camp, ski trips and vacations.

With a Mura Steppin' Out (under $80.00, sugg. list), your personal player is twice as versatile, twice as much fun, for you, for everyone.

Individual Hearing

Q. If the ability to hear specific frequencies varies significantly from one person to another, what is the point of room and speaker equalization to some theoretically flat frequency response? Would not a more subjective process (akin to an eyeglass examination) prove more satisfactory?

Roy E. Sandstrom
Cedar Falls, Iowa

A. This question keeps reappearing in my mailbox under several different guises, usually with reference to the problem of selecting loudspeakers, since "everyone's taste differs."

Live music usually sounds "right"—assuming a reasonable listening environment—no matter what the frequency-response vagaries of our particular set of ears, and live sound as we hear it becomes the standard. If by some magic we were given "ear glasses" that would correct our ears' specific frequency-response aberrations and provide "flat response," the subjective result would probably seem unnaturally shrill or peaky. This is because each of us has established an individual set of "reference standards" based on what reaches the hearing centers of our own brain. Thus, although room/speaker equalization can help restore "reality" to reproduced sound by removing some of the gross aberrations in the room or speakers, it cannot be used to "correct" our ears' performance.

Equalizer Overload

Q. You've said that every 3 dB of boost by an equalizer doubles the power demand on the amplifier. I have a 35-watt-per-channel amplifier and a five-band equalizer capable of a 15-db boost in each band. Is there any danger I could overload my amplifier with that much boost?

A. H. Johnson
Spokane, Wash.

A. It's true that every 3 dB of boost demands twice the power from an amplifier. But if your amplifier is putting out an average of, say, 2 watts in a certain frequency range, then a 3-dB boost in that range will demand only 4 watts from the amplifier, and a 10-dB boost will demand 20 watts—still well within your amplifier's rating. However, a full 15-dB boost will demand more than 60 watts, and this would drive your amplifier into overload clipping. In other words, it isn't simply the amount of boost indicated by the equalizer control settings that's important; you must also consider the signal level in the frequency area that's being boosted.
The ADC difference

ADC engineers weren't looking for conventional speaker sound. That's why they weren't satisfied with conventional speaker design.

Originality

When it comes to performance, size doesn't count...anymore.

There's nothing conventional about our ADC MS-650 mini-speaker system. Not its size; each MS-650 is just 11” high.

Not its design; it's available as a pair or as a three piece system with bass module.

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Ferrofluid cooled drivers for higher performance and lower distortion.

There's also nothing conventional about MS-650 technology.

Most mini-system drivers can overheat and distort under high power. Both our 6½" high compliance woofer and 1" soft dome polyamide tweeter are specially cooled with ferrofluid. It disperses heat five times faster than air for better frequency response, lower distortion and greater power handling capacity...150 watts per channel!

A bass module that isolates low frequencies for extended bass response.

For most people a pair of ADC MS-650's are perfect. But maybe you're not most people. For you, there's our matching MS-10W bass module. It reproduces the lowest bass notes for both channels. The result? Bass response that not only defies the size of the system, it defies the imagination.

For your nearest ADC MS-650 dealer call toll-free 1-800-243-9544. Or write Audio Dynamics Corporation, Pickett District Road, New Milford, CT 06776. In Canada, BSR (Canada) Ltd, Rexdale, Ontario.
NEW SPEAKERS AND ACCESSORIES

LAST month's column was devoted to a quick survey of new electronic products, and here, to complete the picture, is a short rundown on the many new car-stereo speakers and a few accessories that caught my attention at the recent summer Consumer Electronics Show.

ADS showed its CS400 subwoofer system: two 7-inch long-throw units which together have the area of one 10-inch driver but are easier to fit into most decks than a single, larger driver would be and can be individually driven by each stereo channel. Ohm's new mobile line was mostly woofers: 8-, 10- and 12-inch subwoofers, operating from 32 to 140 Hz, and "plain" woofers in 8- and 10-inch sizes rated down to 42 and 37 Hz, respectively. Ohm also showed its new M Mini speaker system in a vented enclosure, rated frequency response 120 to 20,000 Hz. The M Mini has an infrasonic filter and the Ohm subwoofers roll off naturally above 140 Hz, so they can be used together with no crossovers, says Ohm.

Equal attention was paid to the high end of the frequency spectrum. Alpine's pre-show introductions included the Model 6106 Super-ribbon tweeter, a flush-mounting unit with built-in crossover. The new PRO line from ESS incorporates Heil AMT tweeters (naturally). And Infinity's new "i-car," basically a flush-mounting version of their InfiniTesimal mini-box speaker, has (just as naturally) the InfiniTesimal's EMIT tweeter.

In addition to the usual coaxial, dual-cone, and dual-driver full-range systems, the extensive new Philips line includes the Model 8320, a 1-inch dome tweeter set up for either flush or surface mounting. Pioneer has supplemented its original single-driver, high-frequency "Tune-up" speaker with a new two-way model, the TS-M6 has both a 2½-inch cone midrange and a horn tweeter that can be aimed wherever it will sound best. Last year Pioneer introduced the "crossaxial" TS-1600 speaker, a rear-deck model whose tweeter sat up above the deck and fired forward into the passenger compartment. It is now joined by the TS-2000, a larger version with an 8-inch woofer, using a spacer provided with it; one can also mount it in an 6 x 9-inch hole.

Small-car Speakers

Many of the new speakers also attack, in various ways, the installation problems posed by today's cars. "Downsizing" to fit cramped cars has led to a mild rash of two-way systems with four-inch woofers: AudioSource has its LS-Four flush-mount and box-on-bracket LS-5, with an elliptical 4-inch woofer in the latter. Kenwood has its KSC-701B three-way box system, plus the KFC-103 flush-mounting speaker, and the even smaller (3½-inch) KFC-83, and JVC has two new two-way systems with 4-inches in them: the flush-mounting CS-50K and the surface-mounting CS-5K. Philips' Model 8741 is a 4-inch dual-cone driver, and Visonik's new Alphasonic D-3200 flush-mount has a 4-inch woofer too. Epi-cure's slightly larger (4½-inch) LS-81 is now available in a cabinet-mount version; it has quick-release brackets so you needn't leave it in the car when you're not there. Three-way systems such as Kenwood's KSC-701B were less common this time than in previous years. Jensen, though, did introduce a new 6½-inch version of its Triax, with grille-mounted tweeter and midrange plus a mounting depth of less than two inches. Mitsubishi introduced the SG-69TB, a 6 x 9-inch (the commonest size for three-way systems). Sparkomatic's SK 550 SPX is apparently a three-way, though it is billed as a four-way because it has two super-tweeters.

Shallow mounting was a major sales point for some new models. Jensen's 5½-inch ThinMount, only 1½ inches deep, is its fifth speaker to require less than two inches of mounting depth. Panasonic's EAB-040 is another "super-thin" model. The ADS subwoofer mentioned earlier comes with both flat and domed grilles so it can be mounted upside down if there's insufficient clearance behind the mounting panel.

Accessories

Either there are more car alarms now or I've become more conscious of them since my own car stereo was ripped off. I'll save the details of that traumatic event for another column, but among the new arrivals in alarms were radio-alert models from Autoalert and AutoSource as well as non-radio types from Autoalert and Blaupunkt. Rebel showed the Scat II Pro, which "listens" for the sounds of break-ins by monitoring doors, hoods, and trunk lids. Burbank's AudioSafe isn't new, but it hasn't really been explained here. It's basically a cover that locks over the stereo unit and is almost impossible to get off again without the key; it makes your stereo less conspicuous and harder to remove from the dash, so only a most determined thief is likely to attack it. And even he will probably never steal more than one AudioSafe-equipped unit: even outside the car, with the cover still locked on, the unit is virtually unsalable. I suggest that users permanently mark their names and addresses on Burbank-equipped stereos in case they're found in the trash where frustrated thieves have left them!

Pioneer brought out an accessory I wish I'd had years back: a local/distant switch that can be added to any car stereo or radio to eliminate front-end overload in strong-signal areas. I haven't had this problem in many recent systems, but I sure did in the one I had ten years ago.
dbx has been silent too long.

For years Dolby* has been trying to reduce tape noise.
First came Dolby B. Then Dolby HX. Now there's Dolby C.
At dbx, we think it's time to set the record straight. You see, we've never tried to reduce tape noise. We've never had to.
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Where Dolby C reaches a maximum noise reduction of 20 dB, dbx reaches 50 dB. In a CCIR-weighted noise measurement analysis, Dolby C manages only 18 dB, while dbx achieves 55 dB.
What do these numbers actually mean?

Simply this. When you push the Dolby C button, tape noise decreases. When you push the dbx button, tape noise disappears. (You can perform this test yourself using any blank cassette tape.)
The dbx system reduces tape noise so effectively, that it's beneath the noise floor of even the quietest living rooms. Unlike Dolby C, dbx is effective in more than just the mid-range. It operates across the entire frequency spectrum. There's no low-frequency noise. No high-frequency noise. No noise, period.
No wonder Technics, Onkyo, Yamaha, TEAC and others have designed their newest generation of tape decks with dbx.

There's more to this story, too. With the dbx tape noise reduction system, you're also equipped to play the widely acclaimed dbx Discs, the world's only Full Dynamic Range Records — and the first discs that eliminate record surface noise.
In addition, when digital playback technology finally arrives, dbx is the only system that will faithfully reproduce that sound on tape. You'll even be able to hear the sound of digital in your car, because we've developed a dbx decoding system for car stereo.

So before you rush out to buy a tape deck with Dolby C, we have a suggestion.

Listen to the new tape decks with dbx. Or hear what a dbx Model 222 or 224 can do for your existing system. At dbx, we've been silent too long. The fact is, Dolby just reduces noise. dbx eliminates it.

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Pitch Problem

Q. My three cassette decks all run at slightly different speeds, causing horrendous pitch problems in editing home recordings. This also raises a question about buying commercially recorded cassettes—who wants to listen to a symphony a quarter-tone sharp or flat? Can anything be done about this?

ROBERT E. NEIL
Oberlin, Ohio

A. If you’re heavily into tape editing, I marvel at the fact that you’re using cassettes rather than open-reel, but even if you changed formats you would still be subject to some pitch shifts when interspersing sections made on one machine with those made on another. Absolute speed errors always exist to some degree, and one reason why professional decks use such apparently “over-built” motor and drive systems and complex servo-controlled reel-tensioning devices is to minimize audible pitch changes when joining a “take” from the middle of the reel to one recorded near either end, even on the same machine.

There are a couple of things you can do, however. Many tape decks (both open-reel and cassette) are direct-driven by quartz-crystal phase-locked-loop servo systems, and these offer the highest potential for realizing near-perfect speed accuracy. Some of these (as well as a number of decks that are not quartz-referenced) are also equipped with a pitch control capable of varying the drive speed by about a semitone—surely enough to compensate for normal deck-to-deck differences. These pitch controls override the quartz reference (if any) and normally operate only in the playback mode.

If you don’t want to change decks at this point, however, you still may get lucky. Most good cassette decks today use some kind of servo-controlled drive motor(s), and it is often possible to “tune” the reference frequency of the servo system over a slight range. With the aid of a schematic diagram, a wow-and-flutter test tape containing a sustained 3,000-Hz (or 3,150-Hz) test tone, and a digital frequency counter, a technician can adjust the speed differences between your three decks so that all will play back the test tape at the same frequency. This may involve changing a fixed resistor to a small adjustable one on one or more of your decks, but that’s no big deal. You increase the odds of success if you have the technician use the middle section of the test tape (approximately the same amount of tape on each reel) for the adjustments.

The above will minimize the possibility of audible pitch shifts in editing, but you must realize that when two pieces of tape are edited together between notes the ear is much more likely to detect a pitch change than when it is dealing with sections where there are even a few seconds of silence in between. Sensitivity to small changes in pitch varies markedly between individuals (as does the related sensitivity to wow and flutter), which brings me to the point you raise about listening to prerecorded cassettes. Relatively few people—specifically, those endowed (or cursed!) with “absolute pitch”—would know, offhand, whether a recording of a symphony was a quarter-tone sharp or flat, much less whether the conductor had tuned to A = 440 Hz or A = 443 Hz. If you’re one of them, a deck with adjustable playback pitch control is, for you, a musical essential.

Tape Contact

Q. With several of my cassettes that haven’t been played for some time, I find that the treble—and sometimes the whole signal—is missing until I press my deck’s play lever down extra hard and hold it there. Then the playback is okay. Can this nuisance be fixed?

MICHAEL SZIGETY
Madison, N.J.

A. If you try to visualize what happens when you press the play lever on your deck, it may help you understand where the problem(s) may be. When you press the lever three things occur: the reel brakes are released, the pinch-roller presses the tape against the rotating capstan while drive is applied to the take-up reel, and the head assembly is pushed into the cutouts in the front of the cassette shell so the moving tape will wrap itself firmly against the curved head faces. Your problem is clearly in this...
The ADC Real Time Spectrum Analyzer clearly indicates what you should evaluate.

No matter how fine tuned your ear might be, it takes the electronic precision of our ADC Real Time Spectrum Analyzer to give you the true picture you need when adjusting your room and speakers for optimum response. And should your surroundings change, it gives you a continuous visual reference so you can check your system and eliminate new acoustical deficiencies.

With its built-in pink noise generator (so no outside source is needed) and calibrated microphone, our full-octave SA-1 actually provides a visual presentation of the changing spectrum through a series of 132 LED displays.

The peak hold button freezes the reading so you can adjust your equalizer to the frequency response you want.

The SA-1, when teamed with any one of our Sound Shaper® equalizers, completes your sound picture by offering you total control. And clearly, that's what custom-tailored sound is all about.

What, No Bias?

Q. Looking through a recent audio directory, I noticed that while many cassette decks had a variable-bias feature listed, none of the open-reel decks did. What kind of cavalier thinking is it for manufacturers to include such an advanced feature on cassettes and to omit it from open-reel products whose owners are far more likely to want to use it?

E. A. MULVANEY

Los Angeles, Calif.

A. To paraphrase the Bard, the fault, dear reader, is not in our decks, but in our directories, which are (sometimes) inadequate. There are plenty of open-reel decks with front-panel bias adjustments, but this particular directory's inquiry form to be filled out by the manufacturer simply omitted that category. Next time, look in the store as well as the book.
Technics linear-tracking turntable.
Program it to play any cut. In any order. Even upside down.

Technics direct-drive SL-15. It automatically plays the record selections you want and skips the ones you don't. It completely eliminates tracking error and is so advanced it can even play upside down.

The SL-15's microcomputer and infrared optical sensor let you play up to 10 cuts per side, in any order. Just press the program keys in the order of the selections you want to hear. And with the repeat button, the SL-15 can repeat the entire program or any selection.

The SL-15 performs virtually any function. automatically. It accurately selects the record size and speed, finds the lead-in groove and begins playback at the touch of a button.

More proof of the SL-15's accuracy is its quartz-locked, direct-drive motor and dynamically balanced, linear-tracking tonearm. In addition to tracking perfectly, the SL-15 plays a record as accurately upside down as it does right side up.

Technics also offers other linear-tracking turntables, including our famous SL-10 and SL-7. Audition one and you'll agree when it comes to linear tracking, Technics is a cut above the rest.
INTRODUCING
THE NEW BOSE 601™ SERIES II SPEAKER
WITH THE FREE SPACE™ ARRAY.

A new concept in loudspeaker design frees an array of drivers from the confines of the speaker cabinet for an open, spacious stereo image that extends to the walls of your listening room and beyond. A hidden innovation, the subport enclosure, produces bass with impact and clarity. These two concepts combine to produce a Direct/Reflecting® speaker with a sound quality that cannot be matched by any speaker of conventional design. Ask your authorized Bose dealer for a live demonstration. For more information, write Bose Corporation, Dept. SR, The Mountain, Framingham, Massachusetts 01701.
A READER recently posed an interesting question: commenting on the "distortion race," in which amplifier manufacturers seem to be striving endlessly to reduce the distortion in their products to zero, he observed that some of the most highly esteemed (and expensive) amplifiers make no claims to have vanishingly low distortion, that in fact there appears at times to be an inverse relationship between price and distortion! His question naturally was, "Why do these very expensive amplifiers have such 'bad' specifications?" He was referring to those selling in the $2,000 to $5,000 range (for a power amplifier only) with ratings of 0.2 to 1 per cent while others selling in the $300 to $600 range are often rated at between 0.001 and 0.05 per cent.

Several possible explanations were suggested: (1) some manufacturers claiming extremely low distortion may not be entirely truthful, (2) manufacturers of high-price amplifiers with high distortion ratings may be too conservative in their specifications, or (3) distortion ratings may not be a key criterion of good amplifier performance.

My experience indicates that neither (1) nor (2) is a valid explanation. Even in the lower price ranges I usually find amplifiers to be honestly and even conservatively rated in accordance with the rigorous FTC rules for power and distortion ratings, and distortion ratings of 0.02 per cent and less are not uncommon. The few tests I have done on very expensive amplifiers with unexceptional distortion ratings indicate that they behave pretty much as rated, which is to say with much higher distortion than one will usually find in others selling for a fraction of their price.

Most of the very expensive amplifiers on the market are sold (and bought) on the basis of their presumed special listening qualities, and the usual "specsmanship" factors are not in force to the extent they are in lower price brackets. To me they sound just fine, and since I have yet to hear any amplifier whose sonic qualities would make it a clear choice over any other, it follows that the higher measured distortions in some of the ones I have used have not affected their sound in any way I could detect.

THAT leaves us with the third hypothesis: harmonic distortion, at least below some threshold level, really doesn't matter very much in a high-fidelity amplifier. That view may shock some readers who are overly impressed by low distortion specs, but it is a fact of life for anyone who has had experience in evaluating amplifiers. Note that I am speaking of evaluating, not designing. Many amplifier designers I have known are somewhat lacking in objectivity, especially where their own creations are concerned. It is therefore easy for them to "hear" differences, always in favor of their own products, and it is equally easy for them to devise "objective" measurements that will validate this subjective response. In my experience, given two amplifiers with similar power-output ratings, flat frequency response, and negligible noise levels, one of which has a distortion of 0.001 per cent and the other a distortion of 1 per cent, it is unlikely that any difference between them would be audible in a controlled, double-blind A-B listening test if they were both operated below their clipping points.

What I have been discussing is simple harmonic distortion caused by a curvature in the amplifier's transfer characteristic. This usually produces lower-order distortions, principally second and third harmonics, which are relatively inoffensive to the ear. Crossover notches and other sharp discontinuities create many higher-order harmonics which may be audible even at low levels (although the audible importance of these effects has been greatly exaggerated, given modern amplifier performance). Ordinary intermodulation distortion (IM) is simply a different way of measuring the same electrical "problem" using different test signals. So why do we have this bizarre situation in which amplifiers selling for a few hundred dollars are rated at 0.001 to 0.05 per cent distortion, while others selling for ten times as much have distortion ratings ten to a hundred times greater?

There is probably no single, simple answer to the question, since many factors other than distortion must be considered. For example, the amplifiers in my correspondent's list range in power output from about 50 to 250 watts per channel, and that alone can account for a substantial price difference. On the other hand, even if price and power do tend to follow each other roughly, there are so many exceptions to the rule that it must be viewed with suspicion.

It is possible that the explanation may lie simply in the relative ease with which ultra-low distortion can be secured with the out-

Tested This Month

Soundcraftsmen RA7503 Power Amplifier • Goldring G90CE Phono Cartridge
Genesis 210 Speaker System • Hitachi HA-4700 Integrated Amplifier
Dual 741Q Record Player
put transistors and circuit designs currently available, especially when they include large amounts of overall negative feedback. Recognizing the sales appeal of extremely low distortion ratings, especially to the lay public, many manufacturers cannot resist the temptation to shoot for a sub-0.002 per cent specification; if it can be achieved without any large cost penalty, why not?

However, if one believes that “transient intermodulation distortion” (TIM) and related phenomena that are said to result from the use of large amounts of negative feedback are serious problems in modern hi-fi systems, then it follows that we would be better off with much less overall negative feedback. This would result in higher harmonic distortion, but if an increase of one or two orders of magnitude is still not audible in that area, and if there is a beneficial reduction or even elimination of TIM, the trade-off is well worth it—according to proponents of this philosophy.

Luckily, the present state of power-transistor and circuit development makes it possible to have low distortions of all kinds without “excessive” feedback. All it takes is money. This may be part of the reason for the high price of some amplifiers, but I don’t think so. The extremely high prices of a few amplifiers, moreover probably result from the very limited production runs that entail a large amount of hand labor, plus the generally high quality of the mechanical and electrical materials used in the product (many of the parts and transistors are much more expensive in small quantities than they are when bought in lots of many thousands). And, of course, the need to amortize the heavy development and engineering costs of a sophisticated product over a few units results in an inordinately high selling price as well.

My correspondent notes, by the way, that all the amplifiers he listed (about fifteen, from as many different manufacturers) are excellent products. Keep this in mind if you decide to make a similar study of distortion ratings; do not, in other words, give them any undue importance. Price, appearance, power, and many other things can—or should—outrank distortion in the selection process. As I have often said, reliability and ruggedness are paramount for me; no amplifier is worth having if it regularly goes “down” under reasonable home operating conditions (or during lab tests, although I tend to make allowances for their sometimes unrealistic severity).

One final thought: have you considered how many $400 amplifiers you could afford to replace for the price of just one $4,000 amplifier? Even if the cheaper amplifier were less reliable than the expensive one (and in my experience the reverse is more likely to be true), you could afford to keep several on hand as spares and never be without a system in the event of an amplifier failure.

Equipment Test Reports
By Hirsch-Houck Laboratories

A few years ago, Soundcraftsmen introduced the MA5002, a novel power amplifier using what they termed “Vari-Portional” or “Class-H” circuitry to generate a very-high-power output with a higher overall efficiency than conventional power amplifiers of any other class (see test report in Stereo Review for March 1978). A new, somewhat modified and improved version of that class-H amplifier has now been announced by Soundcraftsmen. It comprises a series of three models with identical amplifier sections but different front-panel display features. We tested the top-of-the-line Model RA7503 for this report.

The essence of the “Vari-Portional” system is an extremely responsive power supply whose voltages can follow the instantaneous signal level even more rapidly than the amplifier itself. In fact, the manufacturer claims a slew rate of 90 volts per microsecond for the power supply, compared to 50 volts per microsecond for the amplifier (itself a very good figure).

Normally the amplifier operates with relatively low supply voltages, sufficient to support up to about 100 watts output. As the signal level increases to the point where clipping is imminent, the supply voltages (both positive and negative) increase with it, tracking and staying “ahead” of the signal so that the full power of the amplifier (Continued on page 34)
Once again, in the interest of science and for the betterment of mankind, the services of Mus albus rodendus, or the white mouse, have been called upon. This time to demonstrate the sheer brilliance of the new Sony STR-VX5 receiver.

When the little chap so much as touches the VX5's "Memory Scan," you'll automatically hear four seconds of up to eight of your favorite AM or FM stations, without having to tune them in separately. If he chooses our exclusive "Auto Sweep," you'll hear a four-second sample of every available station on the dial. Find a station you like and another feather-touch control instantly locks onto that frequency. There's no drift. No fade. A computer insures crisp, clear, perfect sound.

But that's merely proof that the VX5 possesses the world's most advanced tuning section. Here's proof that it possesses the world's most advanced amplifier section. Statistically, the VX5 puts out 55 watts per channel with no more than 0.007% total harmonic distortion.* Even your dog can't hear that.

Part of the reason is Sony's unique "Legato Linear" amplifier. This circuitry prevents "switching distortion" from ever intruding on your music. Another part is an incredibly advanced, Sony-developed "Pulse Power" supply. Its transformer alone is but 1/50 the size of conventional transformers and is as quiet as a church mouse.

Of course, there are other outstanding features, from a subsonic filter to moving coil-cartridge capability. And it's all at a price that won't require you to get a second mortgage to purchase it.

The Sony VX5. We used a mouse to prove its genius. But all you really need are a good pair of ears.
The RA7503 normally requires no fan, although the manual warns that for operation in a fully sealed environment or when delivering sustained high power into a low-impedance load, a "whisper fan" should be used for cooling.

The Soundcraftsmen RA7503 is a large, heavy amplifier measuring 19 inches wide, 15 inches deep, and 7 inches high and weighing about 50 pounds. Its exterior surfaces are finished in black. The amplifier can be rack mounted, and optional side panels are available for home use. The speaker outputs in the rear employ heavy-duty, five-way binding posts, and there is a third set of outputs for the mono mode (in which neither side of the output can be used). The amplifier can be balanced through three-circuit 1/4-inch phone jacks, but adapters are furnished to accommodate standard phone plugs and convert the inputs to unbalanced (the usual home-music-system practice).

The front panel of the RA7503 contains an impressive array of indicators and controls. For each channel there is a level-adjustment knob, a green light that shows the onset of the Vari-Portional circuit operation, and a red light that glows when actual waveform clipping occurs. In the center of the panel are two vertical rows of LEDs that display the instantaneous outputs of the two channels. They operate in steps of 3 dB from -90 to -7 dB (relative to rated power), 2-dB steps from -7 to -1 dB, and 1-dB steps from -1 to +3 dB. The lights are green up to 0 dB, red at higher outputs.

Two rows of calibrations next to the left-channel indicators show the mono power output, in watts, into 8- and 16-ohm loads. Next to the right-channel lights are calibrations for stereo operation into 4- or 8-ohm loads. Since the lights for 8-ohm stereo operation cover a power range from 0.02 to 500 watts, they are always glowing and informative during operation of the amplifier.

A center-bottom red PROTECT light indicates that the amplifier's protective system is operating.

The left side of the panel is devoted to a hundred-LED spectrum-analyzer display which shows the program levels in ten octave bands over an 18-dB range at 2-dB intervals. Pushbuttons connect the analyzer to read either channel or their sum. A slider control adjusts the display sensitivity to suit the amplifier's output level.

The protective system of the Soundcraftsmen RA7503 differs from the usual practice. It has no current-limiting circuits (which have been known to cause distortion under certain operating conditions), yet the amplifier is fully protected for operation into 2-ohm loads or against short-circuited outputs. It has an "Auto-Buffer" circuit that senses a lower-than-usual load impedance (less than 4 ohms) and regulates the power-supply voltages to provide the maximum safe power output without unnecessarily interrupting operation.

A dangerous overload, or an output short circuit, is prevented and an "Auto-Crowbar"—a silicon controlled rectifier circuit—shorts the power supply in microseconds, simultaneously disconnecting the a.c. power by means of a triac and lighting the front-panel PROTECT light (there is a separate power supply to operate the protective system even when the main power is off). This action also takes place if the output transistors become too hot. In a few seconds the system automatically resets itself (if the fault condition still exists, the amplifier will not come on, but it will keep trying until safe operation is possible). In addition to its electronic systems, the amplifier is protected by a line fuse.

The Soundcraftsmen RA7503 is priced at $1,149. The optional walnut side panels cost $20. The Model RA7502 is identical except for not having the spectrum analyzer, and its price is $849. The Model RA7501, with neither the analyzer nor the power indicators but an identical amplifier, is $594.

LABORATORY MEASUREMENTS

The Soundcraftsman RA7503 is a one-hour output into 8 ohms bucket circuit (one-third rated power) into 8-ohm loads clipped at just over 300 watts per channel. With one channel driving 4 ohms it was about 450 watts, and driving 2-ohm loads the amplifier delivered almost exactly 500 watts per channel.

The distortion varied between about 0.01 and 0.02 per cent from 100 to almost 100 watts. With 4-ohm loads the THD was 0.005 per cent up to 100 watts, and when the Vari-Portional circuit was operating it was between 0.013 and 0.023 per cent in the 150- to 450-watt range. With 2-ohm loads the distortion was about 0.015 per cent at maximum power output of 385 watts.

When the RA7503 was driving 8-ohm loads at rated power, distortion fell from 0.02 per cent at 20 Hz to 0.01 per cent over most of the midrange and rose smoothly to 0.064 per cent at 20,000 Hz. At half power the distortion rose to a maximum of 0.064 per cent at 5,000 Hz but decreased at higher frequencies (it rose to only 0.06 per cent at 20,000 Hz). This effect was evidently due to the Vari-Portional circuit, since it was functioning at the 125-watt output level. The distortion was lowest at one-tenth rated power, falling from 0.01 per cent at 20 Hz to 0.005 per cent in the midrange and rising to less than 0.04 per cent at 20,000 Hz.
Chances are, if you’ve never received an engineering degree from MIT—or even if you have—you still haven’t the vaguest idea which of the over 200 different cassette decks to buy. Well, there’s an easy way to find out.

Record absolutely nothing on each one. If you hear something like a snake hissing in the background, that recorder is filled with ten-year-old technology. But if you hear exactly what you recorded—silence—then the recorder reflects the technology of the 80’s. And it does, if it’s the TC-FX6C from Sony.

Sony designed the FX6C to incorporate the newest, most advanced noise reduction system—Dolby C. Dolby C doubles the noise reduction without producing the unwanted side effects caused by similar systems. So when you record music you hear only the music and not an extraneous hiss.

To find out how flawless a Sony really is, try recording silence.

And, instead of the conventional tape counter, the FX6C features the most useful guide to tape time ever invented—a computerized Linear Counter. Now you no longer have to guess how much time remains on a tape, or if you’ll run out of tape in the middle of a selection.

There’s no fumbling around to find, play and replay a cut you want to hear either, because the FX6C incorporates an Automatic Music Sensor. This allows you to skip forward or backward to the selection of your choice. You can even preset the deck to repeat any portion of the tape you want to hear up to nine times.

Other innovations range from Sony’s exclusive Sendust and Ferrite head formulation to advanced remote-control capability.

But what’s really innovative is the price. A price that, we assure you, will generate a lot of hissing from our competitors.

SONY. We are music.

CIRCLE NO. 46 ON READER SERVICE CARD
The IHF clipping headroom was 0.84 dB into 8 ohms and 0.76 dB into 4 ohms. The IHF dynamic headroom was 1.04 dB (318 watts) at 8 ohms and 1.07 dB (480 watts) at 4 ohms. The dynamic power into 2 ohms was 544 watts per channel. The amplifier was stable with a complex simulated speaker load, which caused only a slight overshoot on a high-frequency square wave. The IHF slew factor was greater than 25, and the amplifier rise time was about 4 microseconds. The IHF intermodulation distortion (IM) was measured with 19,000- and 20,000-Hz signals. Very low levels of odd-order distortion products (third through eleventh) were visible on the spectrum analyzer at levels from −88 to −92 dB referred to 250 watts equivalent sine-wave power. The even-order (1,000-Hz) IM distortion was at −85 dB.

The low-level frequency response of the amplifier was flat within ±0.05 dB from 10 to 20,000 Hz (down 1 dB at 50,000 Hz and 0.3 dB at 5 Hz). A 77-millivolt input was required for a reference output of 1 watt, and the A-weighted noise was −83 dB referred to 1 watt (−107 dB referred to rated power). The Vari-Portional light came on at about 125 watts, and the clipping lights operated at the point where visible waveform clipping occurred. The power-display lights were surprisingly accurate and, unlike many others, served much more than a purely ornamental function. Typically they came on within a few percent of the indicated power, and they switched on abruptly and unambiguously. It was not possible, however, to light only the +1-dB light, since the +1-, +2-, and +3-dB lights all came on virtually simultaneously. When listening to the amplifier before making any tests, we were surprised at how readily the "500 watt" (3+3 dB) light could be lit without apparent distortion of course, we used speakers that could handle the full output of the amplifier safely. Still, it was difficult to accept the reality of those high peak levels even when listening to relatively uncompressed material. Our later tests showed that these peaks actually reached about 300 watts, which indicated that this amplifier can be driven into moderate clipping without audible distortion.

We made no measurements on the spectrum-analyzer section, which is identical to that built into some of Soundcraftsmen's equalizers. It appeared to work well. A pink-noise test record is supplied with the RA7503 and can be used with the analyzer to adjust the system's frequency response using an external equalizer.

The protective circuits of the RA7503 worked to perfection. We always approach the clipping point in a gingerly fashion when testing a high-power amplifier, since all too often (especially with very low load impedances) there is some damage or a blown fuse to replace when that point is reached. Except with 2-ohm loads, the RA7503 took this treatment with aplomb. Excessive drive into 2 ohms shut it off instantly and silently, and it always recovered with equal smoothness.

Comment. Our experience with high-power amplifiers has given us a somewhat different set of priorities (compared with those of the typical audiophile) for judging the value and desirability of an amplifier. Foolproof protection against almost any abuse is a "must" given the cost of the speakers that might be damaged by any amplifier failure. Since most power amplifiers sound essentially alike (I say "essentially" to forestall a torrent of letters from True Believers who condemn my heretical views), it seems to me that reliability is perhaps the most significant criterion for amplifier selection.

The Soundcraftsmen RA7503 is one of the most thoroughly "bulletproof" amplifiers we have had the pleasure of using. In normal operation the heat sinks become only faintly warm and the rest of the amplifier not even that. One soon tends to forget that shorted outputs and very low load impedances (as many speakers as you care to parallel) are normally "no-no's," since the RA7503 takes them in its stride.

Since the 7500 series units are all identical amplifiers, a choice between them can be made solely on the basis of their display features (and price, of course). We liked the power readout, which up to 0 dB is very accurate and fast. The spectrum analyzer can be worthwhile for some. The point is that Soundcraftsmen have made a superb amplifier in a choice of formats that should suit any need.

It is good for the soul to hear wide-dynamic-range programs reproduced through speakers and amplifiers that can do justice to them, with no nagging worries about whether the amplifier will survive the experience. The RA7503 provided us with some of the more uplifting listening experiences we have enjoyed in recent times. It is, in our estimation, an unqualified success.

Circle 140 on reader service card

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Goldring G900E Phono Cartridge

The British-made Goldring phono cartridges, which in the past have had limited distribution in this country, are now being imported by AudioSource of Foster City, California. The Goldring G900 series of moving-magnet cartridges share a common body, differing only in their stylus assemblies (which are easily replaceable and can be changed to upgrade one cartridge model to another). The cartridge was designed to be as light as possible, to which end the number of its fixed coils was reduced from the usual four to two, which were wound without forms to further reduce weight. The mu-metal hum shield is also smaller and lighter than usual. All these measures result in a cartridge with a total weight of only 4 grams, about 40 per cent lighter than most magnetic cartridges.

The stylus moving system is mechanically damped by a butyl-polymer damper in the G900E (the model we tested), and the moderate inductance of its fixed coils (570 millihenries) helps to make the cartridge response relatively insensitive to capacitive

(Continued on page 38)
The Onkyo TX-4000 Quartz Synthesized Tuner/Amplifier is one of the most perfect stereo receivers we've ever designed. Nothing else in its price range provides the brilliant purity, dynamic headroom, and full excitement of its sound.

The Onkyo TX-4000 brings tuning accuracy to a new level of precision...with an advanced approach to quartz-synthesized digital tuning. And the amplifier section provides all the dynamic headroom demanded by today's audiophile recording techniques. Onkyo’s exclusive Dual-Super-Servo system makes it possible by allowing the power supply to perform as if it were 50-times larger. And there’s more...LED power metering, memory to pre-set 6 AM and 6 FM stations and elegant styling with a flip-down control panel.

All combine to make The Onkyo TX-4000 a tuner/amplifier you will definitely want to audition and then own. Hear it now at your Onkyo dealer.
loading effects. The G900E, being intended for use in a wide variety of tone arms, has a more rugged cantilever than the more expensive models, and its more powerful magnet gives it a rated output of 6.5 millivolts ± 0.2 dB for a lateral stylus velocity of 5 cm/sec. The 0.3 x 0.7-mil elliptical diamond stylus is bonded to the aluminum cantilever tube.

The performance specifications of the Goldring G900E include a frequency response of 20 to 20,000 Hz ± 3 dB (test record not specified) when loaded by 47,000 ohms in parallel with a capacitance of 200 to 400 picofarads. The range of usable tracking forces is 1 to 3 grams, with 1.75 grams being the recommended value. The vertical stylus angle is 24 degrees. Price: $69.

Laboratory Measurements. We tested the Goldring G900E in the tone arm of an Onkyo CP-1130F record player for a total effective mass, including the cartridge, of 15 grams. The vertical force was 1.75 grams, although tracking tests were made over the range of forces for which the cartridge is rated. The cartridge load was 47,000 ohms and 185 picofarads (pF), and the frequency response was also measured with higher values of capacitance.

The frequency response with a CBS STR 100 test record was flat up to 6,000 Hz, rising gently at higher frequencies to a maximum of +4.5 dB from 16,000 to 17,000 Hz. The overall response was within ±2.5 dB from 40 to 20,000 Hz, comfortably meeting the manufacturer's specifications. Increasing the load capacitance to 420 pF shifted the high-frequency resonance peak to 11,000 Hz, which had the effect of increasing the output between 4,000 and 13,000 Hz by about 2 dB and causing it to drop off faster at higher frequencies compared to the performance with the lower capacitance value. The overall variation was still only ±2 dB throughout the audio range with the higher capacitance.

The channel separation was 25 to 28 dB in the midrange, 12 to 13 dB at 10,000 Hz, and about 6 dB at 20,000 Hz. The response and crosstalk characteristics of the two channels were both very closely matched over the frequency range, and the two outputs were also almost identical at 4.7 millivolts, their mismatch being less than 0.1 dB.

The low-frequency resonance in the Onkyo arm was at about 10 Hz, an ideal frequency. The vertical stylus angle was 28 degrees, slightly higher than the rated 24 degrees. At its minimum rated force of 1 gram, the cartridge was able to track our high-level low- and middle-frequency test records successfully. Only the 40-micrometer level of the German Hi Fi No. 2 test record was playable at 1 gram, but tracking improved to a very good 80 micrometers at 1.75 grams and to 90 micrometers at 3 grams.

The response to the 1,000-Hz square wave on the CBS STR 112 record was very good, with a single 20 per cent overshoot fully damped in only one cycle of the high-frequency stylus resonance (about 20,000 Hz). Other than this, the square wave was reproduced about as accurately as we have ever seen from this record.

Tracking distortions were measured with the Shure ERA 102 and ERA 103 test records. The TTR-102 is an intermodulation-distortion (IM) test record with mixed 400- and 4,000-Hz tones recorded at a number of levels. The G900E's IM was low (about 1.6 per cent) at low to average velocities up to about 12 cm/sec, increasing smoothly to 6.5 per cent at 27 cm/sec. There was no sign of actual mistracking even at this very high level. The TTR-103 has shaped 10.8-kHz tone bursts with a 270-Hz repetition rate at four levels from 15 to 30 cm/sec. Any high-frequency tracking nonlinearity causes the 270-Hz frequency to appear in the cartridge output after the 10.8-kHz burst has been filtered out. Here too, there was no obvious mistracking visible on the waveform, and the distortion (at the 270-Hz level compared to the 10.8-kHz level) rose smoothly from 0.7 per cent at 15 and 19 cm/sec to 1.4 per cent at 30 cm/sec.

Comment. Our initial listening to the Goldring G900E (before any measurements were made) left us with the impression that it was a very clean, smooth, and easy sounding cartridge. Nothing in the tests conflicted with that judgment. For example, the subjective tracking tests with the Shure ERA III and ERA IV "Audio Obstacle Course" records confirmed the excellent tracking qualities of the G900E. It played everything on the ERA III record without strain. With the more demanding ERA IV disc, there was a sense of strain only on the highest level (S) of the flute and combined harp/flute sections. As we had observed in the distortion measurements, the cartridge "overloads" very gracefully, never becoming harsh or unlistenable, merely sounding a bit strained when the tracking demands become too severe.

To put this in perspective, one must bear in mind that the G900E has a list price of only $69, ranking it among the least expensive cartridges that can claim true high-fidelity performance. In spite of its low price, the sound and measured performance of the G900E are not strikingly different from those of some highly regarded cartridges that sell for several times its price.

Furthermore, it has a high output, good hum shielding, and the ability to operate with full effectiveness into almost any load likely to be encountered in a home music system. These are impressive qualities, especially in a bargain-price cartridge, and combined with what we heard from it they leave us with an overwhelmingly positive impression of the Goldring G900E (and considerable curiosity about its senior relative, the G900IGC, which is fitted with the radically shaped van den Hul stylus and sells for four times the price of the G900E).

Circle 141 on reader service card

(Continued on page 40)
Noise is a thief. It robs you of the quality of music you are entitled to hear from a fine cassette deck. On the right is a picture of a type of dynamic distortion known as modulation noise. It makes music sound gritty, whether the sound is loud or soft. What these spectrum analyzer traces show, and your own ears will confirm, is that Sansui's new D-550M cassette deck, with its exclusive (pat. pending) Dyna-Scrape Filter, reduces modulation noise by as much as 10dB! That represents a startling audible difference and a profound reduction in this most pervasive of tape noises. Until now, scrape filters were found only in professional reel to reel tape decks. Now Sansui has ingeniously engineered this valuable technology into a truly affordable cassette deck.

The D-550M is a 3-head machine with full IC logic control. It has a frequency response from 25-21,000Hz (± 3dB, metal tape); user adjustable bias control; 2-motor drive that reduces wow and flutter to a miniscule 0.035% (WRMS); plus state-of-the-art heads and electronics that improves signal to noise ratio to 70dB (with Dolby-B™).

And if it is logical for our top-of-the-line D-550M to have full IC logic, then it is logical for our more modestly priced D-300M to have it as well. In fact, much of Sansui's advanced technology that's in our most costly models is also found across the entire Sansui line. Indeed, our lowest priced cassette deck, the D-95M, like the D-550M, D-350M and D-300M, has metal tape capability.


Come see the full line now at your local Sansui dealer.
The Genesis 210 is a two-way, floor-standing speaker system designed for exceptional performance at a moderate price. Its dimensions (31 inches high, 16½ inches wide, 10½ inches deep) effectively rule out shelf mounting for the system. In addition, since the drivers are vertically aligned slightly off the center of the panel, the speakers should be installed in mirror-image pairs (they are marked for left and right placement). The rated impedance of the Genesis 210 is 8 ohms.

The low and middle frequencies are radiated by an 8-inch woofer augmented below 45 Hz by a 10-inch passive radiator. The bass system is based on a fourth-order Butterworth alignment. The woofer response has been designed to roll off naturally above 1,800 Hz, where it crosses over to a single 1-inch-diameter inverted (concave) dome tweeter. No series inductor is used to roll off the woofer's high-frequency output, so its damping is not impaired by the added resistance of a crossover coil.

The tweeter, which has a double-layer voice coil in a ferrofluid-filled gap, is designed to withstand very high power levels without damage. Every Genesis tweeter is tested for 2 minutes at 2,000 Hz at a 30-watt input (the company's tests show that it can handle 100 watts at 2,000 Hz for more than a minute). The woofer has rubber impact bumpers to minimize damage from excessive cone excursions.

The ruggedness of the Genesis drivers combined with the speaker's relatively high efficiency rating (89-dB sound-pressure level at 1 meter with a 1-watt input) means that it can be used with amplifiers rated from 20 to 100 watts output with full safety and effectiveness. The Genesis 210 uses the same tweeter and woofer as the current production of the Genesis 1 (reviewed in Stereo Review for May 1976) and has very similar ratings except for its additional octave of bass response (this is made possible without loss of efficiency by a cabinet volume almost four times as great as that of the Genesis 1).

The wooden cabinet is veneered in walnut-grain vinyl. A black cloth grille unsnaps to reveal the drivers. In the rear, near the spring-loaded connectors, is a toggle switch that decreases the tweeter output slightly. The Genesis 210 weighs about 45 pounds. Like all Genesis speakers, it is covered by a full lifetime warranty to the original owner. Each speaker comes with an individually run frequency-response graph attached to the carton. Price: $229.

- Laboratory Measurements. Our measurements of the Genesis 210 were made in the usual manner, using smoothing and averaging to develop a total power-output curve in the listening room and using the Indac Fast Fourier Transform (FFT) analysis program on our Apple II computer to obtain an essentially anechoic axial pressure response at a distance of about 1 meter.

The two sets of response curves were in most respects in close agreement with each other and with the curve furnished with the speakers (which we presume was made under anechoic conditions). The most notable characteristic of the speaker's response was its smoothness, with very few signs of the irregularities usually found in speaker frequency-response measurements. The FFT measurement was flat within ±2 dB from 200 to 15,000 Hz. Another FFT measurement was made in the computer's low-frequency-analysis mode with the microphone about 1 foot from the front of the speaker and equidistant from the driven and passive cones. This showed a variation of only ±2 dB from 30 to 1,300 Hz.

In view of this rather impressive performance, we were not too surprised to find that splicing a close-miked woofer response curve (measured separately at the driven and passive cones and combined with correction for their respective areas) to the far-field measurement produced an overall composite response curve flat within ±2 dB from 30 to 15,000 Hz except for a moderate "jog" of ±2.5 dB in the midrange between 700 and 2,000 Hz. The output rose above 15,000 Hz by an additional 3.5 dB at 20,000 Hz. The high-frequency dispersion of the Genesis tweeter was excellent, with less than 5 dB difference between the left and right speaker curves (one on-axis and the other about 30 degrees off-axis) all the way up to 20,000 Hz. The tweeter-level switch reduced the output by about 2 dB above the 2,000-Hz level.

(Continued on page 42)
Plan your escape with the Stereo Tape Escape. It's as simple as popping in a tape and putting on the featherweight (2-oz.) headphones. You get tone and channel controls to custom-shape the great stereo sound. And there's an extra jack so you can even escape with a friend.

Model 3-5270

Built-in automatic frequency control lets you escape with ease by locking in your favorite FM station. And just like its slightly bigger brothers, the ultra-light AM/FM Stereo Radio Escape has separate left and right channel controls, an extra jack for a friend, and, of course, incredible sound.

Model 7-1000

Turn on a tape or tune into the FM radio. How you choose to escape is entirely up to you when you have the Stereo Great Escape. Separate channel controls, an extra jack for a friend, and two escape routes make this one machine you shouldn't let get away.

Model 3-5271

For more information, write to General Electric Co., E.P. Bldg. 5, Rm. 134, Syracuse, NY 13221.
The bass distortion was almost constant, between 1 and 1.5 per cent from 100 to 40 Hz and only 2 per cent at 30 Hz, at a nominal 1-watt input (2.83 volts). The acoustic crossover to the passive cone took place at 40 Hz, and we used the distortion measurements from the passive cone below that frequency. A 10-dB power increase, to a nominal 10 watts, gave similar results but with higher distortion, measuring 4 to 4.5 per cent over the same frequency range. The measured sensitivity of the speaker agreed with its ratings, with a sound-pressure level of 89 dB at 1 meter from an input of 2.83 volts of random noise in an octave band centered at 1,000 Hz. However, the impedance curve of the Genesis 210 suggested that it should have been rated at 4 ohms instead of 8 ohms. The impedance was a minimum of 4 ohms at 40 Hz and in the 80- to 160-Hz octave, and it was in the 5- to 8-ohm range at most middle and high frequencies.

Comment. One of Genesis' design goals for the 210 system was to eliminate any trace of a "boxy" or "boomy" quality while retaining a uniform response down to 30 Hz. They have succeeded admirably. Our first reaction on hearing the Genesis 210 in our listening room was to wonder what had happened to the bass! In comparison with the speakers we had been using, the 210 sounded somewhat thin, though extremely well detailed and clean.

It did not take long to find out where the bass was—it was all in the lowest octaves where it belonged. The measured woofer response and our ears agreed that the all-too-usual upper-bass peak was essentially absent in the response of the Genesis 210. The woofer output varied only ±1 dB between 40 and 300 Hz, where most speakers have a peak of up to several decibels, although it did slope gently above 200 Hz to about −4 dB at 1,000 Hz.

We made A-B comparisons of the Genesis 210 with other, far costlier speakers, using the voices of FM-station announcers with which we are familiar. The differences in sound were dramatic and, to our ears in our room, always in favor of the Genesis 210. At higher frequencies it tended toward brightness, and generally we preferred to set its tweeter switch to "decrease," but the major difference was in the lower middles and bass. The former were not emphasized at all, so that voices sounded like people talking naturally instead of seeming to originate in a box. To some extent this effect is emphasized by room resonances, which all rooms suffer from to some degree. The low bass was "all there" (and then some), as might be surmised from the strong response at 30 Hz and below. As for power handling, we drove the Genesis speakers with a 250-watt-per-channel amplifier, occasionally to the point of clipping on deep bass passages. The speakers never even sounded strained, and the overall sound was excellent at any reasonable listening level.

This would be very impressive performance for almost any speaker. In one selling for only $229, it is even more remarkable. Our earlier experience with the Genesis II left us with a strong positive impression, and it appears that Genesis has applied its expertise to a broad line of speakers with good success. Probably there are more really good speakers selling between $200 and $300 than in any other price range. It is not easy for any one of them to outshine its competition by very much, and personal taste must inevitably play the final role in making a selection, but to us the Genesis 210 certainly ranks among the top units in its price range. It is a great speaker and an even greater value.

Circle 142 on reader service card

The Hitachi HA-4700 integrated amplifier is rated to deliver 50 watts per channel to 8-ohm loads from 20 to 20,000 Hz with no more than 0.02 per cent total harmonic distortion. It employs a "superlinear" output circuit similar to those used in some other amplifiers to reduce crossover distortion without sacrificing the efficiency of class-AB amplification. The bias on the output transistors is varied dynamically according to the signal level to shift their operating characteristics from class-A at low levels to class-AB at higher outputs.

The HA-4700's phono preamplifier can be switched for use with either moving-magnet (MM) or moving-coil (MC) cartridges. The program source is selected by a row of flat buttons with colored lights below them showing which has been selected. The inputs are identified as PHONO, AUX, TUNER, and TAPE (the last can be operated independently of the others for listening to a tape recorder's playback regardless of the regular program source). On the same horizontal line with the input-source lights are two horizontal rows of LEDs that display the instantaneous power output of each channel (based on 8-ohm loads). The lights are calibrated from 0.04 to 100 watts (−31 to +3 dB referred to the rated 50 watts output). Green LEDs are used up to 50 watts, red ones at higher power levels. Below the power indicators are three knobs, protruding only slightly from the panel, for the bass, treble, and balance controls. There is a large volume knob at the right of the panel, and all the other controls are pushbuttons. The illuminated power switch and the headphone jack are at the left of the panel near the two speaker switches. Below the input selectors are row rectangular buttons for the TONE DEFEAT, SUBSONIC FIL (filter), LOUDNESS, TAPE COPY (from deck 1 to deck 2 only), TAPE SELECTOR (for playback from either deck when the input tape button is engaged), and PHONO SELECTOR for MM or MC phono cartridges.

On the rear of the Hitachi HA-4700 are the usual phono-jack inputs and outputs, insulated spring connectors for the speaker outputs, and three a.c. outlets, two of them switched. The amplifier is finished in satin silver and measures 17 ½ inches wide, 12 ½ inches deep, and 3 ¼ inches high. Weight is about 13 ½ pounds. Price: $299.95.

Laboratory Measurements. After an hour's operation at one-third rated power the top of the HA-4700 (over the enclosed power-transistor heat-dissipating fins) was

Camel Lights. Low tar. Camel taste.
uncomfortably hot to the touch, but it never became more than mildly warm in normal operation.

When we drove both channels at 1,000 Hz into 8-ohm loads, the output waveform clipped at 60.5 watts for an IHF clipping-headroom rating of 0.83 dB. The amplifier is not rated for use with lower load impedances, but we measured clipping outputs into 4 and 2 ohms of 54.8 and 25.2 watts, respectively. The IHF dynamic headroom (8 ohms) was a very good 2.58 dB, corresponding to a maximum short-term output of 90.6 watts. Into 4 and 2 ohms the dynamic power output was 60 and 29.7 watts, respectively.

For a reference output of 1 watt into 8 ohms, the HA-4700 required an input into the AUX jack of 24 millivolts (mV), 0.32 mV into the PHONO (MM) jack. The respective A-weighted noise levels were -83 and -81 dB referred to 1 watt (both very good readings for an integrated amplifier). The phono-preamplifier stage overloads at a high 230-mV input at 1,000 Hz, and the equivalent overload limits at 20 and 20,000 Hz were 250 and 152 mV. The phono-input impedance was 46,000 ohms in parallel with 250 picofarads. Although we made no measurements with the MC input, its gain is about seventeen times higher than the MM input (+24 dB), and it terminates the cartridge in 100 ohms.

The harmonic distortion of the Hitachi HA-4700 was extremely low. With 8-ohm loads, the distortion at 1,000 Hz was between 0.004 and 0.008 per cent from 1 to 50 watts output, reaching the rated 0.02 per cent at 60 watts just as clipping was beginning. The performance into 4-ohm loads was generally similar, with distortion readings falling from 0.03 per cent at 1 watt to well under 0.01 per cent between 20 and 50 watts and rising to 0.08 per cent at 55 watts. The amplifier's output-current limitations prevented it from delivering much power to 2-ohm loads, and its distortion was in the range of 0.15 to 0.04 per cent for outputs up to 25 watts. The two-tone intermodulation-distortion measurement with equal-amplitude signals at 19,000 and 20,000 Hz revealed no detectable second-order distortion (1,000 Hz) and a barely detectable third-order product (18,000 Hz) at -92 dB referred to the rated 50-watt output of the amplifier. The slew factor was greater than 25, and the amplifier rise time was 4 microseconds. The overload-recovery time (from a 10-dB overdrive condition) was a negligible 5 microseconds, and the amplifier was stable with simulated complex reactive speaker loads.

The distortion at rated power output was no more than 0.002 to 0.008 per cent over most of the audible frequency range, reaching a maximum of 0.015 per cent at 20,000 Hz and falling to a nearly unmeasurable 0.0007 per cent from 3,000 to 7,000 Hz. At half and one-tenth power the shape of the distortion curve was similar, with only slightly higher readings.

The tone controls had a sliding bass-turnover frequency (from about 100 to 500 Hz) and treble curves hinged at 2,000 to 3,000 Hz. The maximum bass boost occurred in the range from 50 to 100 Hz. The loudness compensation boosted both low and high frequencies, but only moderately. The "subsonic" filter appeared to have only a 6-dB-per-octave slope, with its -3-dB response at 60 Hz and -10 dB at 20 Hz. The RIAA phonoequalization was accurate within ±0.25 dB from 20 to 20,000 Hz, and the inductance of most cartridges caused no more than a 0.5-dB rise in the output between 10,000 and 20,000 Hz.

**Comment.** The Hitachi HA-4700, although appearing with relatively little fanfare or publicity, has most of the features that have been seen of late in the top amplifiers of many other manufacturers. It is a compact, handsomely styled, and versatile amplifier that sounds as good as it measures. No manner of sonic flaws or operating "glitches" showed up in our testing or listening to the amplifier, and we came away with a thoroughly positive impression of its performance and overall design.

The HA-4700 has a very comprehensive protection system that manages to be completely unobtrusive as well as effective. A short circuit across the outputs will shut down the amplifier if it is driven hard, and the power must be switched off for a few seconds to restore it to service. Although a d.c.-offset voltage at the output will also silence the amplifier, it recovers from that automatically when the fault is removed. There is also a thermal cut-out that shuts (Continued on page 46)
Why listen to the first names in music, on anything less than the first name in high fidelity.


At Fisher, we believe that the only way to do justice to a great piece of music is to listen to it through a great pair of speakers. And after 40 years of designing speakers, the ST925 is our best ever.

As expected, it has the look and feel of fine furniture—hand-crafted with close attention to detail. Plus all the things needed to make it sound like a fine musical instrument.

Take the 15" low frequency driver, for example. Ours uses a low mass, high rigidity cone material to provide optimum deep bass response.

We didn't compromise on the midrange and high frequency horn drivers either. Both are suspended in an expensive ferrofluid that drastically reduces heat build-up, thus enabling the drivers to handle greater power.

In fact, maximum power handling capability is 130 watts. Yet the ST925 is so efficient it can reproduce live concert sound levels with as little as 25 watts. Not only that, it can also reproduce the full dynamic range typical of the newest digital recordings.

If you think these are good reasons to buy them, you're not alone. After all, Fisher happens to be the largest manufacturer of speakers in America.
the HA-4700 off if it becomes too hot. None of these protective systems operated during our tests, in spite of their severity, but it was reassuring to know they were there and waiting if need for them arose.

The schematic of the amplifier revealed a feature whose presence we would not have suspected from our measurements. A major problem of modern hi-fi systems is their susceptibility to interference from strong radio-frequency fields from nearby transmitters. Often these signals enter through the phono leads, overloading the low-level stages and superimposing the modulation of the r.f. signal on the regular program (or even completely obliterating the program). External filters are a possible treatment for this condition, but their success is uncertain, and there is also the possibility of degrading the amplifier’s frequency response by an improper cartridge termination. Hitachi has built an L-C low-pass filter into the HA-4700 at the phono input. We calculate that the filter has a cut-off frequency of about 1.5 MHz, which should help in cases of interference from nearby CB or amateur radio stations, although it probably will not do much if one is unfortunate enough to live in the shadow of a powerful AM broadcast station. So far as we can see, the only sacrifice made for this feature is the relatively high 250-pF input capacitance of the phono section, but this should not cause problems with most combinations of record player and cartridge.

The Hitachi HA-4700 is, therefore, a thoroughly up-to-date, very high-quality, moderate-power integrated amplifier selling at a most modest price. It is an excellent value in every way.

Circle 143 on reader service card

Headline: the new line of record players from Dual is the Model 741Q, a two-speed, direct-drive, quartz-locked turntable combined with an improved version of Dual’s ULM (ultra-low-mass) tone arm. The straight tubular arm is now made of a magnesium/aluminum alloy that gives greater rigidity while retaining the advantage of very low mass (only 8 grams, including the 2.5 grams of the optional Dual/Ortofon ULM 60E cartridge). The tone arm has Dual’s anti-resonator, a secondary weight suspended within the counterweight, whose effective mass and suspension compliance are adjustable to compensate for the low-frequency arm/cartridge resonance with almost any type of cartridge installed in the arm. The Dual/Ortofon cartridges are supplied on special low-mass mounts, but a separate mount is provided for use with other cartridges. Additional counter-weight sections are also furnished to balance heavier cartridges.

The major improvement in the Dual 741Q is in its suspension system. The motor, platter, and tone arm are suspended as a unit from the base on four accordion-like rubber isolators filled with a viscous damping fluid. The dampers are combined with a coil spring (like an automobile coil-spring and shock-absorber combination) and a transverse rubber suspension element to provide optimum isolation from external vibration. In addition, the entire record player is supported on four adjustable feet, each of which can be set to attenuate the transmission either of low audio frequencies (for feedback reduction) or of infrasonic frequencies (for shock isolation).

All the operating controls of the 741Q are on its front panel and are fully accessible when the dust cover is lowered. Light-touch pushbuttons initiate the play cycle (the arm-indexing position is determined by the selected speed), and the stop cycle can be activated by a touch on its button. Another button (LIFT) raises and lowers the pickup on alternate touches, with the arm position shown by green arrows next to the button. If the REPEAT button is engaged, a record will be replayed indefinitely.

At the left of the panel is a POWER button and a small rectangular button marked PITCH flanked by two small knobs marked 33 and 45. With the PITCH button out, the speeds are controlled by the quartz-crystal reference in the turntable servo system, being selected by a knob on the motorboard near the cartridge end of the arm. A *dial

(Continued on page 48)
WHAT NO HUMAN EYE
HAS EVER SEEN BEFORE, THE
HUMAN EAR NOW HEARS.

The COMPLETE
BUYER'S GUIDE TO
STEREO/HI-FI EQUIP-
MENT calls it "the
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lets our speaker de-
signers see, for the
first time ever, the
vibrating surface of a
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frozen in time and magnified for detailed
examination. Yielding the secrets of
how best to determine
critical dimensions,
select materials and
modify physical and
electrical characteristics.
The result? The following
quotes from the COMPLETE BUYER'S GUIDE
review of the new Ditton 100 loudspeaker,
designed with ULTRA, speak for themselves:
"There is a tendency to compare
all speakers in this configuration to the
LS3/5A, and that's not really a fair test:

Perfect piston motion.
The new ULTRA Tweeter vibrating at 3kHz.

AND THE CRITICS NOW PRAISE.

the latter speaker
costs well over twice
what Celestion asks
for the Ditton 100." Nonetheless... the Ce-
estion was the clear
winner in high fre-
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and—to the ears of
half a dozen critical
listeners—overall
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managed to achieve
better results for less
money using the
technology of today. And that, france, is
what audio is still all about: bringing
fine sound within the reach of all who
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Audition the Ditton 100 or one of the
other superb Dittors at your Celestion
dealer. And
discover why
the COM-
plete BUYER'S GUIDE closed
their review
with: "Bravo
Celestion!"

And the critics now praise.

Celestion's suggested retail price: $130.

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**Laboratory Measurements.** The Dual 741Q was tested with its optional ULM 60E cartridge. The low-frequency resonance was about 10 Hz, with a 4- to 5-dB amplitude. Although more massive cartridges would lower that frequency somewhat, we would expect it to be above 8 Hz under any conditions.

When the arm had been carefully balanced, the calibrations of the force scale on our sample were slightly off (by 0.1 to 0.2 gram). Since the actual force was always higher than the reading, this error is on the "safe" side. We used the 1-gram setting for which the 60E cartridge is rated. The tracking error over the surface of a 12-inch record was well under 0.5 degree per inch of radius. The tone-arm and signal-cable capacitance was 180 picofarads, with an interchannel capacitance of 4.5 picofarads.

The unweighted rumble was a low 37 dB, -90 dB with ARLL weighting. The maximum rumble energy was around 6 Hz, and it decreased rapidly at higher frequencies. The flutter was about 0.06 per cent at 10 Hz with a weighted rms or average measurement, +0.07 per cent weighted peak. These figures represent the best that can be measured with standard test records because of their inherent warpage and eccentricity. The flutter was about 0.1 per cent at 10 Hz, with little at higher frequencies.

The speeds were adjustable over the rated range (we measured extremes of +5.8 and -5.9 per cent), and the calibrations of the speed scale were as accurate as their single-digit resolution allowed. The automatic start cycle required about 1.5 seconds. The stop or automatic start cycle required about 1.5 seconds.

The antiskating dial had to be set to 1 gram higher than the force setting for equal distortion in both channels on very high-velocity records. In spite of the higher setting, the tone-arm drift during cueing descent was very slight; rarely was more than a couple of seconds of a record repeated in an "up/down" arm-lift operation. The lift was virtually instantaneous, and the smoothly damped descent to the record surface required only about 1.5 seconds.

We did not test the Dual/Ortofon ULM 60E cartridge (it and other Dual/Ortofon cartridges have been covered in reviews of earlier Dual turntables). However, we did mount another, conventional cartridge in the arm to check the completeness and accuracy of the instructions. We discovered that careful attention must be paid when installing the cartridge with the supplied gauge and that remounting the cartridge plate in the arm is a bit tricky.

**Comment.** Although the Dual 741Q differs from its predecessors in styling and in many features, it retains its smoothness and ease of operation. For most home applications, it would be hard to imagine a more effective or attractive record player.

The major innovation of the 741Q is in the multiple isolation systems of the Dual 741Q. They provide a better form. For that reason, as well as to quantify our data, we measure base isolation of a record player by exciting all four of its feet with small magnetic drivers (essentially miniature loudspeakers) with a sweeping audio frequency from 20 to 10,000 Hz. The output of the cartridge, recorded on a stationary record, is RIAA-equalized and fed to a graphic level recorder synchronized to the sweep-signal frequency. After calibration, the readout can be compared with test data from other turntables to evaluate relative base isolation.

Does Dual's rather extensive design effort to isolate the 741Q make it less susceptible to transmitted vibration? Compared to previous Dual players we have tested, the 741Q enjoys a clear superiority of at least 5 to 10 dB by our nonstandard test procedure. It showed a single transmission response at 33 Hz—unlike most units, which display either a broad response up to 100 or 200 Hz, or else a number of discrete responses in that range. Its acoustic and mechanical isolation surpassed the measurements we have made on almost all the belt-drive turntables we have tested, as well as all but a couple of direct-drive models. Our tests of the 741Q were made with its mounting feet set for best isolation in the audio spectrum, where our measurements were made. We did not experiment with different settings of the feet, since their effects would have been below our 20-Hz lower measurement limit.

Although the effects of the tunable antiresonance filter in the tone-arm counterweight are difficult to detect either by measurement or by ear, it is clear that the multiple isolation systems of the Dual 741Q combine with its overall excellent performance and ease of operation to make it one of the best record players on today's market.

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Does Dual's rather extensive design effort to isolate the 741Q make it less susceptible to transmitted vibration? Compared to previous Dual players we have tested, the 741Q enjoys a clear superiority of at least 5 to 10 dB by our nonstandard test procedure. It showed a single transmission response at 33 Hz—unlike most units, which display either a broad response up to 100 or 200 Hz, or else a number of discrete responses in that range. Its acoustic and mechanical isolation surpassed the measurements we have made on almost all the belt-drive turntables we have tested, as well as all but a couple of direct-drive models. Our tests of the 741Q were made with its mounting feet set for best isolation in the audio spectrum, where our measurements were made. We did not experiment with different settings of the feet, since their effects would have been below our 20-Hz lower measurement limit.

Although the effects of the tunable antiresonance filter in the tone-arm counterweight are difficult to detect either by measurement or by ear, it is clear that the multiple isolation systems of the Dual 741Q combine with its overall excellent performance and ease of operation to make it one of the best record players on today's market.

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The increasing use of digital techniques in recording musical ensembles seems to have refocused the attentions of engineers and listeners alike on the two big microphone questions: Where and How many?

Why does one recording of a given musical work sound more "real" than others? Why is another more exciting sonically? The differences can usually be traced not to the recording technology (analog, digital, or direct-to-disc) nor to the choice of home playback equipment, but to simple changes in microphone placement at the original recording session.

Miking technique can radically alter most sonic aspects of a recording: perspective (the distance to the ensemble); ambiance (a sense of the acoustics of the concert hall or studio being used); the depth, stage width, and definition of the acoustic (stereo) image; orchestral balance and tone quality; and even perhaps the perceived musicality of the performance. As home stereo systems become more sonically "transparent," it becomes easier to discern the effects of different microphone techniques on the recorded sound and music. To understand where many sonic differences among recordings originate and to define the compromises involved in making a "high-fidelity" recording, let's pretend we're going to produce one.

Imagine we've been given the task of recording an orchestra in such a way that it sounds "real" when reproduced over loudspeakers in a home listening room. Specifically, the goal is to place microphones so as to recreate in the listening room an accurate and pleasing sonic image of the orchestra (and the concert hall's reverberation) as heard from an ideal seat in the audience (note that "accurate" and "pleasing" may not necessarily be compatible aims). To find the best mike positions we'll use intelligent trial and error, making frequent comparisons between playback of the recording and the live sound to help us chart our progress.

The first step in achieving a pleasant sound is to record the orchestra in an acoustical environment appropriate for the music. For example, the reverberation time of the recording locale should be relatively long for large, massive works (Mahler's Symphony of a Thousand) and shorter for more intimate pieces (a string quartet). Also, the tone quality of the reverberation should be neither too boomy nor too shrill. Excellent-sounding halls are not, to be sure, always available, but for the purposes of this experiment, we'll assume that the recording is taking place in a suitable environment.

As the orchestra is playing, we walk around the hall seeking an ideal seat in

By Bruce Bartlett
the audience, one where the sound is musically well balanced and where the direct sound from the orchestra blends in pleasing proportions with the concert hall’s reflected ambiance. The position of this ideal seat depends on the hall acoustics, the size and layout of the ensemble, the particular piece of music, and the taste of the listener. One reason why different recordings of the same piece sound different immediately suggests itself: not all recording producers prefer the same ideal seat.

**Microphone-to-Source Distance**

It seems logical to place a special stereo microphone (or a pair of conventional microphones) at ear height in what we consider to be the ideal seat and record the performance from there (see Figure 1 on page 52). How would the reproduction of the orchestra sound recorded from there compared with what we would hear “live” sitting in the same seat? Probably too distant, blurred, and reverberant. Why? Reverberation in a concert hall comes to the listener—and the microphones—from every direction. Our two ears can easily sort out the direct sound of the orchestra in front from the reverberation coming to us from all around. During playback of a recording over a stereo system, the reverberation is no longer heard from all sides, for all the “hall sound” comes from the space between the two stereo speakers along with the direct sound of the orchestra. Direct sound and reverberation are thus mixed together with minimal directional differences. Our ears can no longer separate the two, so the “excessive” reverberation gives a washed-out, distant-sounding perspective to the music.

To achieve a more natural sound, the microphones must be moved closer to the orchestra to pick up more of the direct sound and proportionately less of the reverberation. As the mikes are moved toward the ensemble, the sound becomes “closer,” “more intimate,” “detailed,” or “dry.” The scraping sounds of the strings and the key noises and breathing of the woodwinds become more obvious, as do creaking chairs and turning pages. A slightly more distant mike placement, although still closer—in than the ideal seat, will give a more blended but somewhat veiled and faraway orchestral picture.

There are some stereo microphone techniques (such as the crossed-figure-eight “Blumlein” system and binaural “dummy head” recording) which are claimed to produce acceptable direct-to-reverberant sound ratios when placed in the best live-listening position in the audience. In general, however, because microphones do not hear the same way humans do, they must be placed somewhat closer to the orchestra than our favorite audience seat if the recorded result is to be pleasing.

The music itself should contribute some clue as to a suitable microphone-to-source distance: closer for incisive, rhythmically motivated works (such as Stravinsky's *Rite of Spring*), more distant for slow-moving, harmony-based compositions (a Bruckner symphony). Monitoring through headphones or loudspeakers while the microphones are placed at various distances from the ensemble (typically 5 to 20 feet from the front row of musicians) will aid in the selection of a spot where there is a tasteful balance between concert-hall ambiance and the direct sound from the orchestra. The goal is to achieve the same audible sense of distance to the ensemble (the “perspective”) as would be heard from the ideal seat we chose earlier.

**Microphone Height**

Let's try recording from a spot (Figure 1, location 2) closer than the ideal seat. The sound is much clearer now, but the instruments in the front rows of the orchestra are much too loud compared to those in the back rows because "As home stereo systems become more sonically 'transparent,' it becomes easier to discern the effects of different microphone techniques on the recorded sound and music.”

the back rows are proportionately much farther from the mikes than they are in location 1. Raising the microphones several feet on a stand (a typical height would be about 15 feet) will help restore the front-to-back balance to what would be heard back in the ideal seat. For smaller groups, those with little depth to the ensemble, the microphones can be placed lower, sometimes even on the floor.

**Frequency Balance**

Now, in our attempt to get ideal-seat sound quality, we have placed the mikes close to the orchestra but high (Figure 1, location 3). After recording from this position we notice that the playback sounds “brighter” (stronger in the high frequencies) than the live orchestra does.

The duller sound heard at location 1 is partly owing to the air’s absorption of high frequencies. Also, the audience sits in the “reverberant sound field,” which is characteristically weaker in high frequencies than the close-up position where the microphones are placed. In addition, the higher harmonics of the strings and some woodwinds (which radiate upward over the heads of the ground-level audience) are picked up by the elevated microphones. Some high-frequency rolloff (a treble cut) may therefore be necessary to restore the ideal-seat spectral balance. This rolloff can be achieved by (1) selecting microphones with this characteristic, (2) electronically attenuating the highs during recording or playback, or (3) using loudspeakers that roll off in the high frequencies. If the recording engineer's monitor loudspeakers have this rolloff, he will probably choose flat-response microphones and will use no equalization. On the other hand, if his monitor system has a flat response, he will tend to choose duller-sounding microphones or will equalize the high frequencies. Since it is most unlikely that a particular listener's speakers and listening room would be acoustically identical to those of a particular recording engineer, it's easy to see how tonal differences among recordings can arise.

**Stereo Effect**

Let us assume that at this point the tonal balance has been corrected one way or another and the microphones are placed close to the orchestra but high. We can now concentrate on the more subtle differences between the playback and the live performance. For example, the orchestral stage width may be too narrow in reproduction, or the instruments may sound too widely separated. Controlling the stereo “spread” is a matter of angling and spacing the microphones and of choosing their polar patterns (their response to sounds arriving from different directions) to achieve the proper reproduced stage width, which typically spreads from speaker to speaker. Thus, individual records can vary widely in the amount of stereo separation they display, depending on the skill and taste of the recording engineer.

During stereo reproduction, a sonic “image” of each instrument is perceived between the loudspeakers (remember that it is essential that the lis-
"Individual records can vary widely in the amount of stereo separation they display, depending on the skill and taste of the engineer."

tener be equidistant from the speakers when evaluating stereo imaging. Sometimes these images are sharp and well defined; at other times they are vague and diffuse. Image definition greatly with the microphone arrangement used (see Figure 2, page 55). Typically, a pair of closely spaced directional microphones aimed in different directions (a, b) provides sharper imaging than microphones spaced farther apart (c). Widely spaced microphones, however, can sometimes convey a sense of acoustic space surrounding the performers and the listener that closely spaced microphones cannot.

Spatial Reproduction

Even with an acceptable stereo image achieved, there remain several significant differences between live and recorded sound. One thing we discover (or rediscover) right away is that the reproduced reverberation of the concert hall comes only from the front and that it is spread out between the two speakers. To restore the effect of live envelopment that live listening gives, ambience needs to be added to the sides and rear of the listening room. This can be done in several ways, all of which have a slightly different sonic effect. The home listener can (1) use multi- or omnidirectional speakers to stimulate listening-room reflections, frequently at the expense of some image sharpness; (2) use an ambiance synthesizer or time-delay system with additional speakers placed to the sides and rear; or (3) use an "image-enhancement" device to electronically manipulate the acoustic signals arriving at the ears. A recording engineer, on the other hand, can either (1) record in quad or some other four-microphone ambience-recovery system, or (2) record with a dummy head placed in the original ideal seat for playback through an electronic "binaural-to-stereo" converter.

Listening-room Adjustments

At this point our playback is finally starting to sound reasonably realistic. However, in spite of all our efforts, we still aren't quite there. We know, evén with our eyes closed, that we are listening in a small room rather than in a concert hall. Somehow the echoes that acoustically define the listening room to our hearing system must be eliminated or masked. Possible solutions include using large amounts of acoustic damping or absorptive panels (there will be a corresponding rise in the amplifier power required), electronic processing of the signals, or highly directional speakers. Elimination of listening-room effects is a problem that still requires a good deal of research.

So far, in our attempt to discover why different records of the same piece of music sound different and not like a live performance, we've covered primarily microphone placement. The choices of microphone distance, height, spacing, and angles all have a strong influence on the recorded sound ultimately obtained. But there is one important variable still to be covered: how many microphones should we use?

Let's say that we've found positions for microphones that yield a good direct-to-reverberant ratio, a good frequency balance, and a good stereo image. Beyond this, it's also very important that the orchestra's various instrumental sections be reproduced with the proper relative loudness or balance. This balance is dictated first by the composer through his notation of dynamics in the score. It is the task of the conductor and musicians to follow—sometimes to modify—the written dynamics so as to produce the desired balances in the audience area.

If the ensemble's balances as "heard" by the microphone placement are not recorded sound, the orchestra's balance being determined mainly by the composer, the performers, and the conductor. In contrast, the multimicrophone method adds "accent" or

Figure 1. Recording from location (1), the "ideal seat" for live listening, would yield an overreverberant, blurred result. Location (2) gives a clearer recording but distorts the depth of the ensemble. Raising the mikes to location (3) restores proper sonic depth.
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“sweetening” mixes to those instruments or sections that the record producer thinks need reinforcement to be heard in proportion to the rest of the orchestra (see Figure 3). In this way an acceptable balance can often be achieved faster (and therefore at lower cost) and with less dependence on the arrangement of the musicians and the choice of recording hall than with the purist technique.

With the purist approach, the auditory perspective depends on the microphone-to-ensemble distance. Instruments close to the mikes sound close and those far from the mikes sound distant, so a sense of depth is immediately captured. The multimicrophone technique often places a microphone close to each section, and the sense of correct sonic distance will often be lost unless reverberation (natural or artificial) is mixed in proper amounts with the signal from each microphone.

A purist technique can (or should) translate the position of each instrument into a corresponding sound-image location between the reproducing speakers. With multimicrophone methods, the image location is controlled by “pan pots,” electronic controls that divide the signal from each microphone between the two stereo channels in varying amounts, depending on the desired location of the image.

Purist recordings usually sound more natural and realistic than multimicrophone recordings. Simple techniques tend to preserve the musicians’ balances, dynamics, timbre, attack, position, ensemble, depth, and relation to the hall acoustics. Reverberation is usually reproduced at a natural level and is spread out evenly between the speakers. Nonetheless, the sonic superiority of the purist approach can work against the music if the balance between the musicians is poor or if the recording hall’s ambiance is too dry, muddy, or tonally colored. The result in these cases would be a very faithful recording of a bad performance in a bad hall. The typical home listener, not having heard the original performance, doesn’t know that the recording is both realistic and accurate, but he does know that it sounds bad! Ideally, when making a purist recording, extra time (and perhaps extra funds as well) should be allotted to obtaining a suitable hall for the music and to adjusting the musicians’ dynamics and positions on stage for a proper sonic blend. The payoff can be spectacular.

The additional control that a multimicrophone technique affords can be a boon, but it can also be abused, producing a distinctly artificial sound quality. The definition and depth of the stereo image are often degraded, instrumental sections sound isolated in their own acoustic spaces, and disturbing phase-cancellation effects can arise.

Most important, using multiple microphones can degrade the perceived musicality of the performance. For example, in a poorly done multimike recording the final balances may not be what was originally intended either by the composer or the performers. Instruments may “jump” unnaturally out of the orchestra for a solo passage only to fall back into the ensemble afterwards. Reverberation surrounding each instrument, which had originally blended the instruments’ attack on the notes and/or filled the spaces between notes, may be missing. The perceived unanimity of rhythmic attack can be altered and made sloppy by the close microphone placement, and balances within a group or section may be hidden. In sum, a mishandled multimicrophone approach can negatively affect our perception of the music and thus hamper musical communication.

Live vs. Recorded

A live concert is often a profoundly affecting sonic experience, and in recording it the engineers and producer may, out of respect for the music, choose to maintain a low profile, to commit the original sound to tape with as little technical intrusion as possible. At the other extreme, a recording can be viewed (and heard) as an end in itself—a creation rather than a recreation—in which sounds have been tailored (also out of respect for the music) to enrich the home listening experience. Microphone techniques can be applied to attain either goal.

Purist methods generally offer the most realistic sound, but it is a simple fact that some ensembles and pieces of music cannot be recorded successfully with just two or three microphones. And though multimike techniques offer a way of obtaining a well-balanced recording in difficult situations, they can, if abused, produce unnatural and unmusical results. Ultimately, the sound quality depends on the musicality and technical skill of recording engineers and producers.

Bruce Bartlett is a senior development engineer specializing in microphones in Shure Bros.’ electroacoustical department.
The case for MINIMAL MIKING IN RECORDING

By David Ranada

In the "good old days," when all recordings were analog, direct-to-disc, and mono, before tape, stereo, and now digital recording techniques rolled over everything like a succession of steam rollers, the goal of a quality audio system (which includes the recordings played on it) was to produce in the listening room the illusion of "a live performance as heard from the best seat in the house," and the watchwords were "accuracy" and "realism." Nowadays, however, listener orientation has changed somewhat in this regard. Many people now want only "good sound" out of their stereo systems, accuracy and realism are incidental, and "hi-fi" is used in its original sense only by the most tenaciously unreconstructed audiophiles.

These days, most listeners seem to forget that almost every recording of whatever type of music ("documentary" recordings are one obvious exception) can be seen as an attempt either (1) to re-create a "live" performance or (2) to realize the potential of an independent medium of musical communication only incidentally related to the sound ordinarily produced in live performance. These two points of view lie at the heart of any discussion of recording techniques, and they particularly affect the question of how many microphones are needed to do a particular recording job properly. But studying and weighing the various arguments on both sides will not produce any kind of "winner" in the "purist"-vs.-"multi-mike" debate. Indeed, there can be no winner in such an aesthetics-centered argument except in the purely commercial sense of which approach ends up selling the most records. However, a brief examination of some of the problems involved in miking a recording session "properly" should help you decide just where your own sonic prejudices place you in regard to a controversy that is currently taking up a good deal of discussion time in some of the nation's recording studios.

Recording as Re-creation

If a recording is represented as being "high-fidelity," one may reasonably expect it to be a faithful re-creation of an acoustical event that occurred at another time in another place. Unfortunately, an exact re-creation (one perceptually indistinguishable from the original) is still not possible even with today's advanced technology, the success of many live-vs.-recorded demonstrations notwithstanding. (Those demonstrations usually use a large room for playback and an anechoic chamber for
the original recording—not quite the same thing as re-creating concert-hall sounds in arbitrarily selected home listening rooms.) Furthermore, an exact re-creation of a performance would not admit of such musically useful (sometimes even vital) processing as tape splicing.

What modern stereo systems can do, and have been able to do for some time with varying degrees of success, is to create a plausible acoustic illusion of a musical event that could have occurred somewhere else at another time. Often with varying degrees of success, and have been able to do for some time and have been able to do for some time and have been able to do for some time is to splicing.

Times even vital) re-creation of a performance would not tening rooms.) Furthermore, an exact sounds in arbitrarily selected home lis-tic sonic situation, though it might be one not likely to be encountered in everyday life. Of course, microphone techniques have a great deal to do with the believability of any sonic illusion, and it is here—in the creation of a plausible acoustic illusion—that I find close-in multimike techniques begin to show their weaknesses. These faults can be heard in varying degrees on almost every recording made with such tech-niques; they destroy the hi-fi illusion either by making it (1) internally inconsistent or (2) simply unrealistic. Many record critics and home listeners seem to be indifferent to how close-miking works against sonic realism. Others, though they sense something improper about a multimike produc-tion's sound, often can't pin down exactly what is wrong. A number of sonic characteristics of multimike produc-tions work against realism, and I believe they have tremendous musical consequences.

1. Multimiking can radically change instrument timbres from those of normal concert-hall sound. Most instruments do not radiate sound with the same intensity in all directions at all frequencies; they are not, in other words, omnidirectional. From the relatively distant perspective of a concert-hall seat, even one fairly close to the stage, reflections from the stage walls and the hall surfaces combine with the direct sound of the instrument to create a different sound than would be received by a close-in directional microphone. Even the addition of reverberation to the mixed-down signal may not restore a realistic sound, especially if it is artificially generated from the close microphone's signal.

2. String vibrato, whose purpose is to lend richness to the sound of large string ensembles, can have its purpose defeated by close microphoning. A near-field microphone re-moves the hall's blending effect on the indi-vidual instrument's vibrato, with the result that the listener can detect each waver from each player individually. This kind of sound is hearable from the first few rows of a concert-hall, but those seats are generally re-garded as inferior. Mixed-in reverberation can help disguise some of the waver, but not always.

3. Slightly sloppy attacks, which would be relatively unnoticeable in the concert hall, again because of the architecture's "smearing" effect on short-term sonic events, can be glaringly obvious in multi-mike recordings.

4. Some orchestral players—percussion-ists, for example—make it a habit to antici-pate the conductor slightly because of their distance from the podium and the audience. A close microphone placement can make their entrances precede those of the rest of the ensemble slightly, an effect that is defi-nitely not audible in the hall and is certainly unacceptable musically. Moreover, the dynamic range can be perceptibly degraded, since the instrument is not recorded in the same way as the other instruments. Differing acoustical en-vironments are sometimes necessary (off-stage effects in opera, for example), but they should be prescribed by the composer, not the recording engineer.

5. Reverberation, which is often added to individual tracks to correct for some of the unrealistic effects described above, can "pool" around an instrument in the final mix, making it seem to be coming from a different acoustical environment than the other instruments. Differing acoustical en-vironments are sometimes necessary (off-stage effects in opera, for example), but they should be prescribed by the composer, not the recording engineer.

6. Dynamic range can be falsified with a multimike setup. First of all, it is mathe-matically unavoidable that the more unre-lated signals are added together, the poorer the ultimate signal-to-noise ratio (and re-member that close-in mike signals are not very similar to each other since their pur-pose is to isolate each instrument or group). Moreover, the dynamic range can be per-ceptibly degraded, since an instrument played piano is different than one played fortissimo. Even if you turn up a recording of, say, a softly played oboe to fortissimo levels, you can still tell that it's being played piano. This result would be a perceptual conflict between the actual loudness of the sound and the clues to the loudness it should have derived from the tone color of the instrument. This hap-pens in multimike productions because the recording levels for each microphone are changed frequently as the music progresses to "correct" the balances.

7. Unless the musicians take great pains to remain quiet, close-miking will result in an increase in musician- and instrument-made noise. Low-level sounds such as page turning, woodwind key clicks, and chair creaking can be exaggerated by close-in mi-crophoning to distracting levels far above those heard in the hall.

8. Instrument locations and acoustical image size may be unrealistic. For example, multimike productions usually give a definite, stable, and small-size image location to the French-horn section of an orchestra. Heard live, the horns' location is not always obvious, for the bells of the instruments point away from the audience. The audi-ence mostly hears sound reflected from the back stage wall. You could hear where the horns are if you stood behind the orches-tra, but then you'd lose all the brilliance of the string tone, which projects upward into the hall.

9. Finally, if the mixer controls are ma-nipulated up or down enough to have an au-dible effect, instruments can momentarily assume an aural prominence they would never have in a live concert.

This little litany of sonic faults does not mean that plausible and realistic record-ings cannot be made with multi-mike techniques, only that it becomes harder to achieve realism the more mi-crophones you add. Trying to correct one fault usually leads to another. "Pu-rist" microphone techniques (some of which are described by Bruce Bartlett's article on microphone placement on page 50 of this issue) tend to preserve the auditory illusion of realism because the sound remains consistent; the image doesn't change while you are listening.

For myself, I am perfectly willing to let a record producer use all the micro-phones, equalizers, artificial reverbera-tors, and splices he wants to in record-ing a work not originally meant to be heard via recordings as long as the fin-al result remains realistic. But it's a difficult goal to achieve with a multi-microphone setup. The true issue in the purist/multimike debate is not the number of microphones. Excellent, re-alistic recordings have been made with as few as one and as many as several dozen microphones. The question is whether a producer (possibly abetted by the performers) is justified in making an unrealistic recording, one that cannot claim to be a plausible re-creation of an actual performance.

Recording as New Creation

But there are those who would say that a recording does not have to be a re-creation—plausible or otherwise—of a "live" musical event, that recording is an independent medium of musical communication essentially different from concert-hall performances. This view is of course defensible—it is, in fact, the principal aesthetic basis of most popular-music recordings, the "originals" of which never existed be-
fore the making of the recordings and frequently could not be produced "live" anyway. It is also the basis of "classical" electronic music.

It is further argued that since recording is an independent medium, there is no reason not to manipulate recorded sounds. This too is unobjectionable—if the composition was intended expressly for the phonographic medium. But to use multimike techniques to change the balances and timbres of a composition conceived for the concert hall to balances and timbres that would be impossible without electronic assistance is something else again.

"Service to the musical composition" is often cited as the justification for sound manipulation beyond what is acoustically plausible. But this argument makes several rather questionable assumptions.

- That the composer would have wanted his music "clarified" in such a way. Most classical music being as old as it is, this can rarely be determined, so it becomes a matter of musical interpretation. But if a producer makes interpretive musical decisions in the interest of "clarity" that result in unrealistic sound, then he should not complain if a music critic responds that "clarity" was not what the music required at that point. To clarify the waves of arpeggios that open Ravel's Daphnis et Chloé Suite No. 2 or that close Wagner's Die Walküre, for two examples, would not be a service to these compositions, for they require a wash of sound to make their effect, not individually heard polyphonic lines.

- That the composer would not have changed the score himself if he knew it were to be presented through a recording. Mahler, for example, took infinite pains with his scores, revising them so they would "sound" in performance—performance in a concert hall. Altering the sonic perspectives in a recording of a Mahler symphony to ones that would be impossible in a concert hall does violence to the composer's carefully calculated orchestration.

- That the effect desired cannot be obtained without stepping out of the bounds of acoustical realism, that the musical line chosen for microphone emphasis could not be made audible with a "purist" mike setup or some adjustment in the actual instrumental performance. This cannot be proved unless simultaneous multimike and purist recordings are made at the same session.

Even then, a work reinterpreted "at the mixer" is just as likely to be missing other details that the producer (and/or conductor) has chosen not to highlight. In effect, turning up one control is equivalent to turning down all of the others.

- That the musical detail chosen for emphasis is significant enough to justify obscuring other, perhaps more important, musical lines. This, too, is a matter of musical interpretation.

- That the listener is too musically unsophisticated to listen for himself and choose what lines he wants to pay close attention to. A recording that leads the listener by the ear turns what is already perhaps too passive an act into one requiring no effort at all. Listening should be a more dynamic enterprise than that!

"... multimike recordings today are so frustratingly unrealistic that we have to listen to them as 'electronic music' if we are to stand them at all."

For all the above reasons, I think it can be fairly argued that "activist" producers are adding another layer of interpretation to that of the musicians. Purists, I hasten to add, also add a layer of interpretation, but it is at most a thin varnish, not a heavy coat of paint. An analogy is sometimes drawn between a recording and a film of a concert. A cinéma vérité film of a concert, in which the camera remains fixed in position and perspective throughout, would be uninteresting and perhaps even exasperating to watch. But so are many so-called film "interpretations" of concerts: the camera may not focus on what the viewer wants to see, just as the multimike producer may not be recording what the listener wants or needs to hear.

If the proper goal of a record producer is truly to serve the composition—and I believe it is—the correct analogy is with a photographic reproduction of a painting. The photographer's job in such a case is not to "interpret" the masterpieces he photographs, but to make a "record" of them that is as accurate and realistic as possible given the limitations of the medium. Granted, the reproduction cannot be perfect (the impasto will not be duplicated, for example), and there is some unavoidable interpretation involved in the selection and positioning of the light, the choice of film and camera, but the approach is similar to the recording purist's search for optimum mike positions. With the right equipment properly used, the results in both cases can be tremendously exciting—witness some of the recent minimally miked recordings on the Telarc label and the spectacular reproductions Polaroid gets with its "Audio Verité Camera." If photographers of paintings emphasized the "important" details in the masterpieces they document the way some audio producers do, we'd have Mona Lisa's grin stretching from ear to ear.

Audio Verité

There is, however, a way to listen to recordings that sets aside all questions of production procedures, type of music, or degree of realism or unrealism, and that is to listen to all recordings as if they were "electronic music" such as a tape piece by Stockhausen, a work of musique concrète by Pierre Schaeffer, or perhaps Walter Carlos' "Switched-on Bach" or Isao Tomita's "Bermuda Triangle." When you listen to such a disc or tape you are not hearing a "recorded performance" but a performance of a recording. Taken to its logical conclusion, this view implies that there are no such things as recorded performances, only electronic performances. Whether the sound source is a synthesizer or "natural" instruments, the performance as such takes place only when you press the start button or cue the tone arm. The only "interpretation" is that introduced by your particular stereo system, your mood, or your listening room.

There is nothing ethically, legally, or musically "wrong" with listening to recordings this way. In fact, you can learn a lot about the internal workings of a complex piece of music by listening to an ingenious electronic realization such as "Switched-on Bach." But not all music is as durable under such treatment as Bach's, and there is no question that such recordings may be far from what the composer intended (they are certainly far from what was notated). Unfortunately, many multimike recordings today are so frustratingly unrealistic, artificial, canned, processed, implausible, calculated, pre-interpreted, re-interpreted, and unspontaneous that we have to listen to them as "electronic music" if we are to stand them at all. That doesn't strike me as much of a service to the musical composition or to the performers.
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Introducing Pioneer Syscom: A totally new kind of high fidelity component system.

If you're in the market for true high fidelity sound, a pre-matched system is a good way to get it. Because it offers the sound quality of separate components and saves you the trouble of having to buy them piece by piece.

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Syscom, on the other hand, is the high fidelity system built by the people who are famous for every thing that goes into one. Pioneer. In fact, today Pioneer is the leading maker of virtually every kind of high fidelity component.

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For the name of the Pioneer Syscom dealer nearest you, call 800-447-2882 (In Illinois 800-322-4400). Digital timer.
matched. They're built for each other by Pioneer audio engineers. This maximizes the system's performance and results in sound quality often not even found in systems costing twice as much.

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CIRCLE NO. 59 ON READER SERVICE CARD
Concluding last month's "preview for buyers" coverage of the new products at the 1981 Summer Consumer Electronics Show in Chicago...

Accessories

Since "accessories" is such a catch-all category, it's best to start with the one designed as a catch-all—the equipment cabinet. There were more cabinets than ever before at CES, most of them grouped so close together as to make one end of McCormick Place's exhibition floor look like a furniture showroom.

Furniture. Though Barzilay is one of the oldest names in audio cabinetry, this was its first CES appearance. The company is phasing out its vinyl-veneer models in favor of real wood and adding such styling features as beveled glass doors. Two interesting innovations caught my eye: one is the GR-11 cabinet's flip-up turntable lid, which forms a rack for the album cover when raised; opening it turns on a turntable-compartment light too. The other is a wooden soffit with a traverse curtain rod which mounts between two equipment cabinets; the cloth-louver drapes attached to the rod can be closed to hide the screen of a two-piece video-projection system, while the cabinets at each end hold your other audio or video equipment.

By far the most modern-looking cabinets on view were the CityScape models from Design Institute of America (DIA). They're towers (available in four heights, from 3 to 6 feet) with a slanted top and doors of Diaglas, a two-way mirror that becomes transparent when illuminated from within (you can even watch TV through it). The cabinets are available in mirror-finish aluminum or ten lacquer colors.

But if DIA's offerings were futuristic, there was also a definite trend toward traditional styling (including the "contemporary" style that's been with us long enough to be traditional). Even Après Audio, best known for very modern designs, showed French Provincial and Oriental styles. Pulaski showed several types of cabinet in "Country Pine, Contemporary Walnut and Traditional Pecan"; Oaktron's Fine Arts Collection came in Provincial, Modern, Mediterranean, and Campaign styles, with matching speaker systems available. Non-Pareil's square cabinets with curved-wood legs and Gusdorf's new Vistarak series fell somewhere in between the modern and traditional camps.

Decoders and Equalizers. Cabinets are built to house components, and one of the latest of these is the CX decoder, for use in playing back records made with CBS' new CX noise-reduction system. Phase Linear
AT CES 81

A report by Ivan Berger

had its $99 CX model on display, and Audio-Technionics was on the verge of shipping its $125 model with "class-A circuitry." MXR and Sound Concepts (see test report in September, page 36) also showed decoders.

If CX decoders are the newest type of signal processor, equalizers remain the most common. Perhaps the biggest news in this department is Sansui's SE-9, an automated equalizer/analyzer combination for just $700. That's considerably less than dbx's 20/20 automatic, introduced last year, but the dbx unit covers a wider range (ten bands instead of eight, 31.5 Hz to 16 kHz) and can memorize ten equalization curves to the position (the dbx unit uses all-electronic automatic equalization).

Sansui also has a new, non-automatic equalizer/analyzer package, the SE-8 ($400), and JVC has a combination model, the S9-60, without a microphone or pink-noise analyzer, to sell at a "low" price to be announced. One unusual feature is the "Sea Character" switch, which reverses the equalization curve, allowing complementary curves to be used, for example, in playback and recording. Technics' new SH-100 has a similar feature. Other new equalizers were shown by Akai, Harman Kardon, Marantz, Phase Linear (not a parametric, but a $550 ten-band graphic), Vanco, and Vector Research. New analyzers were shown by ADC, Soundcraftsmen, and Rotel.

Phase Linear probably had the greatest number of new signal processors. In addition to the new CX decoder and graphic equalizer, the company showed the $250 Model 1300A V audio/video noise-reduction unit (see the last page in this roundup for more details) and the Model 180 Dimensional Sonic Localizer ($510). The Model 180, designed to increase depth and realism and improve stereo imaging, can be used with monophonic video equipment and other single-channel sound sources "for an enhanced monaural sound which creates a stereo effect." It's also designed to eliminate the feeling that the orchestra is inside your head when you're listening through headphones.

Headphones. The impact on headphones of the Walkman-type personal portables was fairly evident. Audio-Technionics announced that its Point One, Point Three, and Point Five headphones will all now come with 3.5-mm stereo plugs to fit the mini-portables' jacks and that the phones will be packaged with adaptors (also available separately) for the ¼-inch jacks in most home equipment. The adaptor packed with the Point Five models will be combined with an extension cord, while the cord attached to the phones themselves will be shortened to prevent tangling. Since these small portables and their phones may be used outside in any weather, A-T offers ear-muff-like Eskimo Winter Pad covers for small phones ($8).

Koss' Sound Partner phones, introduced at the winter CES last January, paid even more attention to portability: they come equipped with adaptors for 3.5-mm monophone jacks as well as ¼-inch stereo ones, and they fold for easy carrying. Stanton's Model XII Micro Wafer phones come with similar adaptors, but only one per phone—mono with the X11m, stereo with the X11Is. Kenwood introduced three Light 'N' Easy phones, the KH-7, KH-5, and KH-3. Muro added the Model HS ($15) to its ultralight "Red Set" line plus the new "standard" lightweight HV-190 ($30).

Sony, which started it all, expanded its miniature MDR headphone line with six new models, for a total of eight. Five of the six, ranging from the MDR-1T ($30) to the MDR-80T ($85), come with Unimatch adaptors for ¼-inch stereo jacks. The sixth is...
the MDR-E33 ($35), lightest of the light, whose drivers hang directly from the ears without a headband.

Koss has created a new two-way studio design, the Pro/4X, employing both a piezoelectric tweeter and a moving-coil element for lower frequencies. The two appear to be coaxially mounted within circumferentially cushioned, closed-back earcups. Pioneer has brought out three new models, with the Master-1S being a comparatively conventional design and the SE-L5 and SE-L3 ultralightweight types.

AKG's single new headset, the K-130 ($49), employs supra-aural earcups and transduction elements that are derived from moving-coil microphone elements. Beyerd has been using similar technology in a new line of three lightweight phones, the DT 330, DT 550, and DT 880.

**Tape Accessories.** The most common tape accessories were head cleaners. The new Allsop 3 Ultraline has dual cleaning pads for auto-reverse cassette decks and comes with replacement cleaning pads; it's $15 in a soft case with a large bottle of cleaning solution, $10 in a smoked-plastic box. Broughton's Clean-n-Check ($7) not only cleans the heads but measures on a built-in gauge how well the tape transports working. Discwasher's first tape product, the Perfect Path head cleaner, uses a dry, non-abrasive approach.

Sony announced a slew of new tape accessories. For general use, there's a high-speed tape eraser/winder, the BE-100 ($70), which rewinds and erases a C-60 tape in less than three minutes, and a $40 illuminated head demagnetizer. Another new entry, the RM-65 Synchro remote-control unit ($25), can be used to synchronize many of Sony's new cassette decks and turntables with each other for easier taping from records.

Sony also introduced two new timers, the PT-77 and PT-55. The PT-55 ($95) can be programmed to start and stop a tape recorder at one preset time up to twenty-four hours in advance. The PT-77 ($195) can be set for up to eight events over a seven-day period. Sansui added the $150 AT-15 timer, a one-event, twenty-four-hour model, to its Super Compo systems line. Onkyo too showed a new timer, for $125, with convenient forward/reverse time setting, and Pioneer's DT 510 timer ($120) was also on display at the show.

**Disc Cleaners and Other Accessories.** For record care, Audio-Technica announced the Techni-Clean Audiophile Record Maintenance System ($25), a brush with a unidirectional plush pad and a conductive body to drain away static charges. The kit includes a brush for cleaning the pad and a storage base to keep dust off it between uses. Hitachi had an automatic record cleaner that spun itself around the disc. Robins was the first I know of to promote the same accessories for audio and video.
At first glance, you'd think a 75 watt receiver could outperform a 45 watt receiver easily. But FTC power ratings only tell you half the story—how a receiver will react under a continuous speaker impedance of 8 ohms.

Under realistic conditions, though, musical signals can actually cause speaker impedance to drop dramatically, demanding far more current than most 75 watt receivers can deliver. The receiver clips, robbing you of the true dynamics and excitement of your music.

That's why all Harman Kardon receivers have been designed with an enormous power reserve we call High Current Capability, or HCC. The use of special output devices is part of the HCC design. Our output transistors and power supplies, for example, will produce as much power as your speakers demand. Right up to the point at which the receiver shuts down to protect your speakers.

How much power they'll deliver depends on which receiver you choose. The hk580i shown above is rated at 45 watts per channel. But it will deliver a full 200 watts or more of instantaneous power on demand, with absolutely no threat of clipping.

Of course power alone doesn't make a receiver great. There's distortion to conquer.

In most receivers, THD is reduced with a heavy application of negative feedback. But negative feedback causes a far more serious distortion called TIM or Transient Intermodulation Distortion. So we use less than 25 dB (compared to a more typical figure of 60-80 dB) to keep TIM inaudible to even the most critical ear.

But even a receiver that sounds great isn't perfect until it's got just the features you want. So we build six receivers to let you pick and choose. From our modest hk350i, with analog tuner and 20 watts per channel, to our top of the line hk680i with digital tuner, 60 watts per channel and every convenience feature an audiophile might want. Accommodations for two sets of speakers and two tape decks. Tape monitor and two-way dubbing. High and subsonic filters. Tone defeat and loudness contour. And more.

So now that you know how committed we are to sonic accuracy, perhaps you should audition one of our High Current Receivers.

But only compare us to receivers with at least twice the power. After all, you do want to make it a fair comparison.


*Harman Kardon power ratings: RMS, both channels driven into 8 ohms, 20Hz-20kHz with 0.05% THD.
At last there's a cassette transport that fully exploits the precision of quartz.

You expect precision from quartz-locked direct-drive. But with a wow and flutter specification of 0.019% WRMS, the JVC DD-9 goes beyond your wildest expectations. Audibly, this means complete freedom from pitch wavering. Plus uncanny clarity in the high frequencies thanks to almost total absence of flutter.

What else can you expect from a deck that's this accurate? Dolby* C for one thing. It reduces noise by 20 dB (versus 10 dB with the previous Dolby system). And it operates much farther down into the midrange, giving 15 dB noise reduction even at 500 Hz. Against this newfound background of silence you'll hear a greater resolution of musical details, especially with wide-range source material.

There's other JVC magic in the DD-9, too. Like our computer B.E.S.T. system that automatically measures every tape you use. Then sets bias, EQ and noise-reduction values to achieve ruler-flat response with lowest possible distortion. While JVC’s heralded Sen-Alloy (SA)* Heads give you supremely low distortion plus rugged durability, all in a three-head configuration.

* Dolby is a trademark of Dolby Laboratories.
Audio / Video

We now have a true stereo-sound TV—of sorts—in the Mitsubishi 2582, which has a built-in 88- to 108-MHz stereo-FM tuner for simulcasts. It also has a complete stereo sound system with a 10-watt-per-channel rating (though distortion levels and frequency range are unspecified), independent inputs and outputs, and two-way air-suspension speakers.

 Quite a few other sets have similar sound systems (except for the tuner). This equips them to reproduce simulcast sound from a stereo tuner or stereo from a videodisc player or stereo-sound videocassette recorder. Playing the sound through the set’s own speakers may not be as satisfactory as playing it through your stereo system’s speakers, but it is more realistic if your system’s speakers don’t flank the screen, and it lets you adjust the sound level with your set’s remote-control unit.

 Among the sets with stereo-sound systems having auxiliary inputs are: RCA’s ColorTrak 2000 25-inch series (which also features 127-channel tuning to accommodate all current cable systems), Fisher’s forthcoming 26-inch sets, Quasar’s sets with Audio-Technicum Sound II, GE’s 25-inch models with “Performance Sound,” some Sony consoles, and Sony’s Profeel TV component system.

 There are many variations on two-channel TV-sound systems. Toshiba, for example, offers MSSS (Multi Spatial Sound System) with two-way speakers and matrix pseudo-stereo plus audio-output jacks in its CA-2550W 25-inch console (about $1,300). Those RCA ColorTrak 2000 consoles already have “Dual Dimension Sound”—simulated stereo through the set’s own speakers—and two 19-inch table models have two-way speakers with output jacks to connect to your own stereo system. Some Sanyo sets and Sony consoles have a similar matrix-stereo sound feature (it can be switched on and off from the remote control in Sony’s version). Zenith has dual-channel systems with output jacks on six models, and five models have built-in 100-W (8 ohms) (two-channel) amplifiers, bass and treble controls, and voice/music filter switches. And Fisher’s new consoles have matrix in addition to true stereo.

 Quite a few sets, moreover, have monophonic-sound enhancements. Magnavox’s “Star System” 19- and 25-inch sets have remotely controllable voice/music switches. Sanyo’s 91C92N and 91C94N 19-inch sets have two-way speakers and, on the 94N, bass and treble controls and an audio-output jack. Several GE 25-inch models and two 19-inches have audio-output jacks too. Hitachi has separate audio-output recording jacks on many 19-inch and a few 15-inch models. Zenith has fourteen models in four screen sizes with audio jacks.

 “Monitor” sets with audio and video input and output jacks are catching on, and with good reason. Sound and picture (especially when audio and video signals are fed directly from a VCR or video disc player than they are when first converted into a broadcast-like radio-frequency signal by the player’s modulator (a micro-power transmitter) and then demodulated back into audio and video by the TV set’s tuner. Last year there were only a few of these models—a 19-inch RCA model, 5-inch portables from JVC and Panasonic, and Sony’s KV-4000 3.7-inch set. This year the flood begins: Grundig’s new 26-inch and 20-inch table models (whose remote controls also run Grundig’s new videotape recorders) have “DIN (IEC)” video sockets and (in the A 8800) two-channel sound. Zenith’s new Gemini 1000 monitor set has two-channel sound too, with separate speakers on 12-foot cables so you can place them wherever they sound best. Several of Sony’s consoles have monitor connections, as does their second 3.7-inch set, the KV-4100, which also has a built-in AM/FM tuner (mono only) and a microcassette audio recorder. Toshiba’s new CA-045 (about $475) 4.5-inch set with monitor jacks is also the smallest set made in the U.S.

 Component TV. Sony’s VTX-1000R Profeel “access tuner” has an even greater variety of possible connections. The tuner is but a part of Sony’s total component television system, which also includes matrix-monotor screens and two separate TV systems, built-in audio amplifiers with 5 W/ch and 6 dB-per-octave bass boost below 200 Hz.

 Both the speaker systems are two-way, sealed-enclosure types. The smaller SS-X10A has a 3.3-inch woofer, and since it’s designed to mount directly on the Trinitron monitor, it’s magnetically shielded so as not to distort the color picture. The larger SS-X1A is a free-standing system with a five-inch shielded woofer and 3 dB greater efficiency. The separate 105-channel tuner has three aux video inputs and four stereo pairs of jacks for audio (aux 1, 2, and 3 plus aux TV). There are also three sets of audio and video outputs, plus “multiple” outputs to feed extra screens. And like many of Sony’s new TV sets, the Profeel tuner has two antenna input jacks selectable from the remote control; one is for direct connection to the cable, the other for connection through the converter needed for scrambled pay-TV channels. Unless your cable system has more than one pay channel, then, you’ll be able to tune in any cable channel using just the set’s remote control.

 Though Sony’s is the only full component system in home TV, component TV has been here in bits and pieces for some months now. Separate tuners and tuner receivers have long been available for most portable video recorders, and NEC has had a tunerless large-screen $3,600 projection system (using Kloss Novatron tubes built under license) for a while. Now Kloss too has a monitor-only set (19-inch, $2,495), while NEC has a separate tuner ($600) and a $500 19-inch monitor.

 Projection Systems. Monitor inputs are proportionately more common in large-screen projection sets than in conventional, direct-view receivers. The difference direct video connection makes is far more obvious in these two-channel systems, and the extra cost is proportionately far less significant in a $3,000 set.

 Two-channel sound is more common in these systems too, and again for several reasons: the second sound channel costs less than the first—and is even more dwarfed by the cost of the set as a whole. The cabinets are wide enough to allow for real speaker separation (the wide screen seems to cry out for a wider sound source), and the buyer who’ll pay that much for a set probably wants the best of everything.

 So most of the new projection systems have monitor jacks and two-channel sound: GE’s Widescreen 4000, Magnavox’s $3,495 Model 8505 and Sylvania’s similar LSA5000 SuperScreen, Pioneer Video’s LS-S01 projection set (whose audio-output levels can be set by its remote control), Panasonic’s CT4500, RCA’s PFR100R, Mitsubishi’s VS-51SU and VS-506U (which, like the Magnavox and Sylvania sets, have built-in space for a VCR or videodisc player), and Sanyo’s $3,495 PV5080R (which also has a stereo matrix synthesizer and a voice/music filter). Fisher’s TT-900 projection system will have matrix stereo plus three pairs of audio inputs.
against a mere two video inputs (the extra audio jacks are probably intended for use with FM simulcasts).

Zenith's first projection set, a 45-inch model that folds down into a traditional console, has monitor inputs and four speakers but, apparently, just one amplifier channel. Kenya's new-built-in "Space Phone" lets you dial calls though the remote keypad and answer them through the set's audio system and a timer to turn the system on and off at programmed times. Kloss' NovaBeam has been revised to include monitor connections, but it has only monophonic sound.

- **VCR and Videocassette**. After Akai's introduction of a stereo-sound videocassette recorder (VCR) with Dolby last year, I'd expected to see several more at CES, the more so since most Japanese manufacturers already have such models in their home lines, but those units will apparently have to wait until we get stereo-sound TV broadcasting in this country (incidentally, Germany just approved it); the only new Japanese VCR with stereo sound was a Hitachi prototype. Even Akai's own new non-portable deck had only mono sound Akai did, however, release two stereo-program tapes ("Michael Nesmith in Elephant Paris"—see review in the September issue—and "Tom Jones in Concert") from Pacific Arts and promised more to come. Caballero, a supplier of X-rated tapes, also announced stereo-sound video fare (I didn't know people also listened to that stuff).

A non-Japanese stereo VCR did bow at CES, though: Grundig's Video 2x4 Super. This uses neither VHS nor Beta taps, but is based on the Video 2000 system sold in Europe and originated by Philips (whose U.S. subsidiaries, Magnavox, Philco, and Sylvania, all have VHS decks). While VHS and Beta are much alike in everything but speeds and dimensions, Video 2000 differs quite a bit from both. All other video cartridges sold here (VHS, Beta, U-Matic, and the Funai system sold by Canon and Technicolor) use the entire width of their tapes in one pass, so their tapes must be rewound between plays. Video 2000 (or 2x4 here) uses half the tape width in each pass, so the tape must be flipped over in the middle (auto-reverse models are planned) but need not be rewound at the end—much like the Philips audio cassette. Flipping the tape needn't be too onerous, though; it plays for 4 hours per side, giving it a total of 8 hours' playing time per tape, 2 hours more than the current VCR record.

Three more audio companies—Fisher, Kenwood, and Sansui—branched out into video by introducing their first VCRs. Both Sansui's SV-R5000 and Kenwood's KV-901 are VHS machines that play at three speeds (2/4/6 hours) but record only at two (2/6), a growing trend these days. Both have viewable fast-search functions at seven times normal speed on SP (2-hour) tapes, or twenty-one times on 6-hour EP tapes. Both have two-week, eight-program timers, optional wired ten-function remote controls, and fourteen-station tuners. The chief functional difference between the two is in their soft-touch control buttons: Sansui's are narrow and mounted in a short double row, while Kenwood's are larger and lined up in a single row. Fisher's VHS decks won't be available for some months yet, so we'll have to reserve details for later.

Kenwood also showed the KA-502 audio/video amplifier, an integrated amplifier delivering 70 W/ch. It has inputs for two VCRs plus videodisc and microphone mixing, with dubbing possible from the disc to either VCR or from VCR 1 to VCR 2 in mono, stereo, or "live" (pseudo-stereo) modes.

Videodisc systems are automatically of audiophile interest since their sound is potentially so much better than that of videotape decks. Only one new stereo model was announced for production, the remote-control version of Magnavox's Magnavision LaserDisc player. The new Model 8005 will cost $769. No other new LaserVision players were introduced, and Magnetic Video announced that its initial LaserDisc releases would include stereo sound on such titles as The Muppet Movie and Alien (they don't waste stereo on human casts?). Pioneer Artists also announced an association with Covent Garden Video Productions to produce LaserDiscs of the Royal Opera and Royal Ballet, and if those discs aren't in stereo, I'll eat them—or they'll eat me!

No stereo hardware or software for RCA's CED disc system was shown—no surprise, since RCA distributed technical standards for CED stereo to its licensees only after the June show time. Toshiba's $525 disc player will have a jack for an eventual stereo adaptor, though, as will Hitachi's player.

The third-format "VHD" (Video High Definition) players, to be here early in 1982, will all have stereo sound, of course, and MCA has promised VHD stereo versions of Sergeant Pepper's Lonely Hearts Club Band, Jesus Christ, Superstar, and Xanadu. Since MCA also has a prime stake in LaserVision, one could probably expect LaserDisc versions of those, too, if they're not here already.

The VHD system also has an audio off-shoot, the AHD digital-audio disc. AHD discs would require no separate player, merely a decoder to plug into a jack on the VHD unit. Aside from JVC (which developed VHD and AHD) and Yamaha (which has announced no videodisc plans), though, VHD manufacturers seem to be soft-pedaling this aspect of their system. That's probably because the laser-scanned Philips Compact Disc seems well en route to becoming a de facto standard.

Before CES, Sony and Matsushita (Quasar and Panasonic here) both announced their backing of the Philips disc. This is rather a striking development, for Sony is currently propagandaizing against the videodisc, Matsushita is the main backer of the non-laser VHD system, and the two giants agree on technical standards just about as frequently as CBS and RCA do. Shades of Sanyo's CD-4 or Beta VHS (though it's only fair to note that CBS is now pressing discs in RCA's CED videodisc system and RCA has adopted CBS' CX system).

The bandwagon looked even more crowded at show time. Prototypes of Philips' Compact Disc players were being shown by Marantz, Sanyo, Sony, and others. Sanyo and Optronics also showed new PCM adaptor boxes for digital-sound recording on VCRs. Alpine, though not at the show, chose CES time to display a PCM digital-audio system with video capability using a cassette only slightly larger than a standard audio cassette.

- **Noise Reduction.** Noise reduction is finally coming to video—and high-time. The audio-signal-to-noise ratio of even the best home VCR is usually on the order of 40 dB; that's mediocre at best. But this show saw the introduction of two noise-reduction systems designed to clean up already noisy signals (unlike such systems as Dolby, dbx, and CX, which just keep signals from getting noisier during recording).

The one billed specifically for video use was Phase Linear's new 1300AV ($150), which removes up to 12 dB of noise. There are separate inputs for a monophonic-video system and a stereo-audio system, both selected by a front-panel switch. It joins the KHL DNF210A for video-sound noise reduction that was made available last year.

National Semiconductor used mainly video program sources to demonstrate a $200 noise-reduction box from Advanced Audio Systems Laboratories that国 that's mediocre at best. But this show saw the introduction of two noise-reduction systems designed to clean up already noisy signals (unlike such systems as Dolby, dbx, and CX, which just keep signals from getting noisier during recording).

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THE SOLID GOLD SOUND
No amount of freakish good luck, no series of promotional blitzes, and no repertoire of management ploys can by themselves keep a star performer fixed in the pop-music firmament for very long. The average run for the averagely talented singer, even augmented by the Special Measures listed above, is three to five years. A decade would be exceptional. Fill in your own word, then, to describe the career of Johnny Mathis, whose latest Columbia release, “The First 25 Years: The Silver Anniversary Album,” celebrates a quarter-century of stardom with twenty tracks on two discs.

The performing longevity is remarkable enough, but the sales statistics of the Mathis career are simply awesome: there have been fifty—count ’em—fifty gold and platinum record awards, one hundred million records sold worldwide; his album “Johnny’s Greatest Hits” appeared on the Billboard charts for a phenomenal nine and a half years; and twenty-two years after his first big hit (Wonderful, Wonderful, released in 1956, when some of you weren’t even born yet) he once again had the number-one pop single in the country (Too Much, Too Little, Too Late, with Deniece Williams as his duet partner). His only peer as a record seller through the Seventies was Sinatra, and he is now strongly embarked into the Eighties with what appears to be a following wind.

Once the staggering statistics have been absorbed, the question naturally arises: Why? Since there is no such proof, compare his classic Fifties Misty track in this new album with the 1981 Nothing Between Us but Love; you’ll find almost no change either in voice or in style. His amazing durability as a star performer seems rather to be the result of a kind of magical universality, an innate ability to establish, simply through the sound of his voice, an emotional affinity with his audience. That famous, easily parodied vocal sound seems to resonate naturally and effortlessly with the wishful dreams and the real experience of millions of people around the world.

Mathis has never been (to put it mildly) a critic’s pet or the subject of media coverage anywhere near equal to his popularity; in the Small but Wonderful World of Hip he simply doesn’t exist. What does he stand for, then, in that larger world he has dominated for all these years? Asking around at random, I got some revealing reactions. “When I think of him, I think of a singer who always knows what he’s singing about,” said one. “He has real vocal quality,” said another, “he doesn’t use gimmicks or tricks.” A young woman in her twenties remarked, “He makes me feel comfortable; he’s warm and sexy in a non-threatening way.”

There is plenty of supporting evidence, I think, for all these reactions in “The Silver Anniversary Album.” From the famous signature songs (Misty, Chances Are, It’s Not for Me to Say, Wonderful! Wonderful!, all in their original versions) to the brand new tracks (It Doesn’t Have to Hurt Everytime, Nothing Between Us but Love; There! I’ve Said It Again, Too Much, Too Little, Too Late; As Time Goes By; When Sunny Gets Blue; Ready or Not, I’m Coming Home) there is a consistent, unchanging emphasis on the basics that have sustained Mathis’ career:

“Critics may call it emotional Muzak, but legions of long-time fans call it sheer bliss.”
the sweetness of the sound, the high-voltage charge given certain key words within a lyric, and, of course, the trademark ritards of his phrasing. Probably no performer since Crosby has understood microphone technique as well as Mathis. And probably no other recording singer ever has been able to count on the one-two punch Mathis delivers so easily: a remarkably flexible vocal instrument catches you off guard, making you easy prey for the insinuating, reverie-inspiring seductiveness of the lyrics. Critics may call it emotional Nfuzak, but legions of long-time fans call it sheer bliss.

There's been a good deal of talk lately about the Good Old Days returning to pop music. Whether they will or not seems irrelevant in the case of Johnny Mathis, for he's never been away. Try as I may, I can think of no stylistic predecessor—any more than I can think of any possible successor. Audiences throughout the world continue to respond to his unique gifts, and I think you'd better lay in a copy of this "Silver Anniversary Album" to go with the "Golden Anniversary Album" that is bound to come.

Most of the music in the album seems to stem from slightly compressed analog master tapes, so this is hardly a representative test of CBS' new "CX" noise-reduction system (see "Audio/Video News," July 1981). Listening with the CX decoder switched in, there was a slight impression of increased dynamic range (probably stemming from the considerable reduction in record-surface noise) and no evidence of decoder mistracking (the so-called "breathing" or "pumping" effect). Undecoded, the album sounded like a heavily compressed FM broadcast (although with more high-frequency content than FM can deliver) and certainly quite satisfactory for the uncritical listener.

Digital mastering helps clear up many murky things in these movements, chiefly in the developmental episodes that other readings have made either vague or sonically overloaded. Ashkenazy and the Philharmonia players bring off the gear shifts in the enigmatic scherzo, always a nasty trap when it comes to maintaining flow, with admirable aplomb, and the feeling for the big line in the great slow movement is unerring. The finale sizzles with spontaneity, electrifying tension, and a genuine appreciation of its improvisatory aspects. Ashkenazy opts for the use of the glockenspiel (as against the large bells sometimes used), and here especially the digital sonics do wonders, capturing the instrument's icy brilliance with stunning effect. In short, this is one of the two or three best Sibelius Fourth readings currently available on discs, the others being those by Colin Davis with the Boston Symphony on Philips and by Gennady Rozhdestvensky and the Moscow Radio Symphony recently issued on Quintessence.

As a striking bonus, Ashkenazy and the Swedish soprano Elisabeth Soderstrom give us a well-nigh perfect realization of Luonnotar, Sibelius' mystical evocation of the Kalevala creation legend. While I would have preferred The Bard as a second coupling, I have to admire the conductor's courage in choosing instead a spirited treatment of that venerable but still intensely vital patriotic chestnut, Finlandia. This is a marvelously satisfying disc.

—David Hall


Franck's Organ Music: A Three-way Triumph For Repertoire, Performer, And Instrument

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by L'Oiseau-Lyre constitute the heart of the French master's monumental contribution to the organ literature over a period of thirty years. To these dozen, organist Graham Steed has added a thirteenth: Marcel Dupré's transcription of the Symphonic Interlude from Rédition. Listening to these works in a single comprehensive edition, one can easily understand why Franck is considered the founder and glory of the modern French organ school. The music is conceived on a vast scale, synthesizes many formal and compositional techniques, combines a fine melodic gift with a daring use of chromatic harmonies, and dramatizes the rich sound palette of the Romantic organ.

The organ in Bath Abbey, England, originally built by Hill in 1868, rebuilt by Norman and Beard in 1895, and restored after war damage in 1948, is the perfect vehicle for these visionary works. The engineers of L'Oiseau-Lyre have caught its sonorities and ambiance perfectly, and Graham Steed has employed its full resources in his stunning readings of Franck's music. Steed is a superb musician who understands the art of melodic phrasing on the organ. Listen to the supple melody Franck presents in the opening of the Prelude, Fugue, et Variation for a splendid example of the use of a subtly graduated rubato. Each phrase is marked by a slight terminal ritard, but the melody never sags as the initial tempo is resumed for the succeeding phrase. The same technique is used for the return of the melody in the Variation, but the rubato never hinders the ebb and flow of the rippling sixteenth-note accompaniment. Steed also knows how to apply direction to Franck's chromatic effusions and contributes a fresh rhythmic vitality (so frequently lacking in the performance of this music) through his use of short, detached chords and accompanying figurations. No matter how thick the textures, how vagrant the harmonies, Steed always maintains the grand line, moves inexorably to the climaxes, and clarifies the structures. This album deserves triple honors for César Franck, Graham Steed, and the organ of Bath Abbey. —Stoddard Lincoln


**Nine Unfamiliar Pieces By Mussorgsky in Stunning Performances Under Claudio Abbado**

Although Mussorgsky's *Pictures at an Exhibition* has become a popular orchestral showpiece thanks to the brilliant transcription by Ravel, we do still hear the original piano version, both live and on records. Mussorgsky's other popular orchestral piece, however, *Night on Bald Mountain*, has come down to us mainly as the brilliant pastiche created by Rimsky-Korsakov from three different sources. The original version in this case remained unknown until 1968; in the meantime, like *Pictures*, the work was performed and recorded in a number of other arrangements. In 1968, the year the original version was at last published, it was recorded by the London Philharmonic under David Lloyd-Jones as part of a Russian collection which included Balakirev's frequently discussed but seldom heard *King Lear* Overture. That Philips release never reached our side of the Atlantic and has now disappeared altogether, but a stunning new recording of the original *Night on Bald Mountain* by Claudio Abbado and the London Symphony Orchestra has just been issued by RCA together with eight other Mussorgsky orchestral and choral pieces, most of them similarly unfamiliar. It is a fascinating collection, and Lloyd-Jones is again involved, this time as the author of the invaluably informative annotation.

This original version of *Night on Bald Mountain* is utterly different from both Rimsky-Korsakov's and Stokowski's, with a somewhat narrower gap separating it from the René Leibowitz version (available on Quintessence PMC-7059). Motifs made prominent by these arrangers are less so in the original, and instead of the quiet concluding section in Rimsky's edition the piece ends with the witches' sabbath going full tilt. What is most surprising is that the orchestration, anything but
crude, is extremely brilliant and imaginative. Rimsky's version will always deserve its place in the repertoire, but Mussorgsky's own is an exciting discovery and a place must be made for it too.

The other discoveries in this superb collection are hardly less intriguing. The four choral items have been presented by Abbado in his guest appearances with the New York Philharmonic and the Philadelphia Orchestra, but none of them seems to have been recorded before. They are the Chorus of Priestesses from Act IV of the uncompleted opera Salammbô, the independent piece Joshua (or Jesus Navin, actually an adaptation of material from the same Flaubert-derived opera), the Chorus of the People in the Temple from the incidental music for Ozerov's Oedipus in Athens, and a setting of the opening verses of Byron's poem The Destruction of Sennacherib (with Mussorgsky's own prose rendering of the text). Rimsky's hand is apparent in the polished orchestration of all four of these choruses, but here we have no case of reconstruction or pastiche as in his version of Night on Bald Mountain, and the originality and power of all this material make quite an impact.

It is in Rimsky's familiar orchestration too that we hear the Prelude to Khovanschina and the Entr'acte from that opera's fourth act, but it is in Mussorgsky's own scoring that the two remaining pieces are performed. These are the dashing little Scherzo in B-flat Major and the brilliantly colorful Triumphal March (often listed as "Turkish March") called The Capture of Kars. Both of these, as well as the Khovanschina excerpts, have of course been recorded before, but not with anything like the panache displayed here. Abbado's affection for this material is infectiously apparent, the LSJO and its fine chorus are at the top of their form, and the recording itself is vivid and rich. The one lapse in this otherwise splendid production is the failure to provide texts, or even synopses thereof, for the four choral numbers. Even without them, though, this is for me one of the most stimulating releases in a very rich year.

—Richard Freed

MUSORGSKY: Night on Bald Mountain (Original Version); Khovansschchina, Prelude and Entr'acte; Scherzo in B-flat Major; Triumphal March ("The Capture of Kars")
London Symphony Orchestra, Claudio Abbado cond. Joshua; Salammbô, Chorus of Priestesses; Oedipus in Athens, Chorus of People in the Temple; The Destruction of Sennacherib. Zehava Gal (contralto, in Joshua); London Symphony Chorus and Orchestra, Claudio Abbado cond. RCA ARL1-3988 $9.98, ©ARK1-3988 $9.98.

Steeleye Span's Return: Words Worth Hearing Mounted on Shockingly Pretty Melodies

Of all the disbanded bands that have managed to return to life lately, Steeleye Span may have done it best—come back to life, that is. "Live at Last," their "farewell" album of three summers ago, was unfocused and dispird, but their new "Sails of Silver" redeems that failure and stands up well against some of the good early albums such as "Parcel of Rogues." Steeleye isn't exactly its old self, of course, either in its personnel or in its sound. The lineup on the new disc—Maddy Prior, Tim Hart, Peter Knight, Rick Kemp, Nigel Pegrum, and Bob Johnson—mirrors the group that coalesced in 1974. Steeleye was first formed in 1970, and various subsequent incarnations of the band included Tyger Hutchings, Gay and Terry Woods, Martin Carthy, and John Kirkpatrick (the last two replaced Knight and Johnson on the farewell album). As for their new sounds, Steeleye has filed off some of the rough edges, apparently in an attempt to make the music easier for more people to swallow.

I disapprove of that in principle, but I try to keep in mind that everything is a matter of degree. Once you get into this new effort, I think you'll find that a lot of the old inventiveness still remains. And besides, though the other guys may be toning it down a bit, Rick Kemp's bass is still athletic and surprising, and any vocal complement that includes the clarion pipes of Maddy Prior has to be a cut above 90 per cent of the ear candy on the radio. Besides that, the words are worth hearing, the melodies almost shockingly pretty.

The notes credit most of the songs to the whole band. I don't know if that means they have no antique folk-song connections (my research on the old Child ballads has been sadly neglected lately), but most of them sound as traditional as the songs they don't write 'em like any more. The title song and Where Are They Now are particularly...
lovely. The melodies and the haunting vocal harmonies are worth the price of admission; what's left of the old Steel-
eye spirit in the arrangements makes it all a bargain.
—Noel Coppage

**STEELEYE SPAN:** Sails of Silver. Steeleye Span (vocals and instrumentals). Sails of Silver: My Love, Barnet Fair; Senior Service, Gone to America; Where Are They Now; Let Her Go Down; Longbone; Mari-

**CLASSICAL**
- J. S. Bach: Goldberg Variations. ARCO 2532. 2532. "A thoughtfully executed and mature reading by Trevor Pinnock." (July)
- Brahms: Piano Concertos Nos. 2 and 3. LONDON 274:444. 274. "The partnership of Vladimir Ashkenazy and Sir Georg Solti is complete and electrifying." (July)
- Gidon and Elena Kremer: Music for Violin and Piano. PHILIPS 8500/904. 8500/904. "Exceptional music making." (September)
- Rosati: L'italiana in Alger. RAO 9034-2855. "A delightful comic totality springs to triumphant life." (July)
- Stravinsky: The Firebird. LONDON LDR 70009. "A virtuoso conducted realization of a glorious score." (September)

RECENT SELECTIONS YOU MAY HAVE MISSED

**BEST OF THE MONTH**

**POPULAR**
- Ellen Foley: Spirit of St. Louis. EPIC/CLEVELAND INTERNATIONAL JE 36894. "A most impressive album in the difficult cabaret genre." (July)
- Emmylou Harris: Evangelina. WARNER BROS 8500. "Awesome music making." (June)
- Kity and the Haywoods: Escuse Me, I've Got a Life to Catch. CAPITOL ST.12149. "Sweet, old-fashioned, down home singing." (September)
- Leo Kottke: Gutter Musk. OLYSALIS 041 1328. "Koffke a appealing performance." (August)
- Phoebe Snow: Rock Away. MIRAGE 1501. "This album is a real charmer." (June)
- Leon Ware: Rockin' You Eternally. ELEOTRA 6E-332. "A most imaginative album in the genre." (August)

Kid Creole and Coconuts: Their “Fresh Fruit” Is Devilish Musical Satire Served Up with Style

**KID CREOLE AND THE COCONUTS** is Dr. Buzzard’s Original Savannah Band (1976) in its latest metamorpho-
sis (there have been several). No later edition of the group has managed to re-

The Original Savannah Band was a cooperative effort spearheaded by Au-
gust Darnell and Stony Browder Jr., but the latter plays no part in the new Kid Creole group, which seems to be entirely the work of Darnell and Andy Hernandez (whose input has been vital since the Savannah days but who tends to stay out of the publicity spotlight). Darnell and Hernandez have exhibited a prepossessing creative rapport with each other before, but never as strikingly as they do in “Fresh Fruit in Foreign Places,” a new Sire album that is the musical foundation for an extended theatrical presentation that has Darnell (Kid Creole) scouring the Caribbean in search of his lost lover. (A stage presenta-
tion, with Joseph Papp directing, is in the works, with some kind of video project rumored to be warming up in the wings.)

Perhaps not surprisingly, “Fresh Fruit” abounds in reggae sounds, but Darnell and Hernandez—who either individually or together composed all the tunes—avoid the monotony that so often creeps into that genre, generously flavoring their arrangements with often devilishly subtle dabs of sound picked up from such common denominators of the public ether as late-night movie reruns.

Darnell and Hernandez are a magni-
ficiently imaginative team whose wit-
ty musical satires (for that is what they are) have a rare ingredient that is al-

The melodies and the haunting vocal harmonies are worth the price of admission; what's left of the old Steel-
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Come to Marlboro Country.

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

The cover of the MCA album "Bill Monroe: Master of Bluegrass" (MCA-5214) shows a mandolin and a white hat, two well-known trademarks of an artist who is often referred to as the Father of Bluegrass.

Monroe began his musical career in Kentucky in his early teens playing with one of his uncles, whom he subsequently immortalized in his most famous song, "Uncle Pen."

In 1938 Monroe joined the Grand Old Opry in Nashville, where his first number was "Mule Skinner Blues." He signed with MCA in 1950 and has recorded for that label ever since. Monroe was elected to the Country Music Hall of Fame in 1970, and when "Master of Bluegrass" was released this year, he donated to the museum connected with the Hall of Fame one of his favorite mandolins and a white beaver cowboy hat given to him by the late Lester Flatt, with whom, as all old radio fans will remember, he played in the early Opry days.

We don't know what cult favorite Alex Chilton is up to these days, so for the time being we'll have to make do with "Bach's Bottom" (Line LLP 5081), a German release of some mid-Seventies sessions Chilton did in Memphis while his left hand was in a cast. Chilton, the boy genius responsible for the great Box Tops hits in the Sixties as well as two lovely power-pop albums as a member of Big Star a few years later, has been relatively inactive recently. The new album, produced by critic Jon Tiven, includes a few cuts previously available as singles on the New York indie label Ork and shows Chilton working in a raw style that eerily presages elements of the New Wave. A fascinating curio, particularly relevant in light of the Searchers' recent (and splendid) cover of Chilton's "September Girls." Available from JEM Records, 3619 Kennedy Road, South Plainfield, N.J. 07080. —S.S.

"You're nowhere without that tube," Lou Rawls once observed, and here's a picture that proves him right! That's rocker Rick Springfield autographing a shoe for one of the thousands (!) of fans who turned up recently to see him at a Manhattan record store. Rick is currently enjoying his first hit single ("Jessie's Girl") and album ("Working Class Dog") after almost a decade of knocking around the music business, but that's not why the crowd showed up: in case you hadn't heard, Rick's also a heart-throb on the popular daytime TV drama (soap opera to the rest of us) known as General Hospital, in which he plays Dr. Noah Drake.

Considerably more impressive is David Bowie: An Illustrated Record, by Roy Carr and Charles Shaar Murray (Avon, $9.95). This is an absolute must for Bowie fanciers, for it has it all: a lively critical overview of his entire career, endless historical minutiae, and incredible graphics (if the authors have missed an extant Bowie photo or Japanese single sleeve, it's not for lack of trying). For non-believers like myself the book is problematic. Carr and Murray make a case for Bowie as the most important rock artist of the decade, but while I'm willing to admit that, for better or worse, he's been profoundly in-

Traditional wisdom has had it, until recently, that books on rock-and-roll don't sell. But ever since biographies of Bruce Springsteen and Jim Morrison started generating what music biz types refer to as "elephant dollars" there has been a spate of rock books attempting to duplicate their success. Comes now Bruce Pollock's When Rock Was Young (Holt, Rinehart, and Winston, $6.95), which will most likely reinforce traditional wisdom. Billed as "A Nostalgic Review of the Top 40 Era," the book is mainly made up of interviews with various hit-makers of the period (1955-1964) ranging from off-the-wall (Jo-Ann Campbell) to historically interesting (Hank Ballard) to pointless (Dave Guard of the Kingston Trio, whose connection with rock is, shall we say, tenuous). It's breezy and light on scholarship, but it does give you something of the feel of the time, and Pollock has a nice postscript about a minor Playmates single that haunted his youth.
fluential, his appropriation of other people’s ideas, his dilletantism, and his casual exploitation of an unsophisticated audience (all of which Carr and Murray admit) are still troubling. Then again, Bowie’s biggest impact has been in England, so perhaps the authors can be excused as being too close to the subject to maintain a proper objectivity. In any case, as with Carr’s earlier similar books on the Beatles and the Stones, a fascinating package. —S.S.

COLLECTORS’ ALERT: CBS has a new Springsteen album out, but, sad to say, as of now it’s available only to radio stations and the press. Called “Bruce Springsteen as Re-Departed Around the World,” it’s a sort of eccentric greatest-hits package. Side one is made up of stuff from ’The River;’ and side two has concert favorites from the earlier albums (nothing from the first one, oddly enough). Boss fans who have to have everything shouldn’t despair, however, if history is any guide, bootleg copies should be appearing at exorbitant prices, in specially stores by the time you read this.

GOGGLING INTO THE CHANNEL DEPARTMENT: Polydor Records, apparently laboring under the misapprehension that the average Midwest rock fan will relate to a troupe of painted hussars in gaucho outfits, is engineering a massive promo push for Visage, a band in the vanguard of the so-called “New Romantic” movement currently raging in Britain. Pictured here is Steve Strange, the band’s conceptual honcho and fashion plate, arriving at a Manhattan punk club à la Peter O’Toole. And you were wondering why records list for $9.98. —S.S.

GRACENOTES Terry Sylvester has defected from veteran English hitmakers The Hollies, the band is currently in Los Angeles recording with founding member Graham Nash (late of Crosby, Stills, and . . . ). There will be no mention of

Disc and Tape Reviews

By CHRIS ALBERTSON • NOEL COPPAGE • PHYLL GARLAND • PAUL KRESH
MARK PEEL • PETER REILLY • STEVE SIMELS • JOEL VANCE

© = stereo cassette  ™ = digital-masterv recording  □ = quadraphonic disc
© = eight-track stereo cartridge  ™ = direct-to-disc  □ = monophonic recording

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

AIR SUPPLY: The One That You Love. Air Supply (vocals and instruments). Don’t Turn Me Away; Here I Am; Keeping the Love Alive, This Heart Belongs to Me, and six others. ARISE AL 9551 $8.98, © ACT 9551 $8.98, @ A8T 9551 $8.98.

Performance: Nice but numbing. Recording: Excellent

Air Supply’s lyrics are droll and their tunes aren’t likely to set the world singing, so what keeps the customers lining up to plunk down their money for their albums? The first album released in America by these seven Australian singers and instrumentalists, who dress neatly and can play and sing quietly when they choose, was called “Lost in Love.” From the sound of things here, they still are. Maybe that’s their secret. They project a kind of naive vulnerability. You don’t want any of these fellows to be hurt, that’s all, and you hope all those “friends” they sing about will be there when they wake up tomorrow. —P.K.

MARTY BALIN: Balin. Marty Balin (vocals, guitar): instrumental accompaniment. Hearts; You Left Your Mark on Me, Lydial, Atlanta Lady, Spotlight, and four others. EMI/AMERICA SD-17054 $7.98, © 4XO-17054 $7.98, © 8XO-17054 $7.98.

Performance: Another producer’s trip. Recording: Very good

If you’re old enough to remember when John Chancellor could pronounce his own name, you’ll recall that Marty Balin and the early Jefferson Airplane let the market react to them rather than the other way around. I guess times and people do change. From the Richard Avedon jacket photos to the band’s current mode of operation (and Marty Balin’s hair even resembles a religious symbol). This album seems custom-tailored to today’s radio needs—although I have to say it isn’t as dumb as the Peter Frampton album that ushered in this era. The trouble is that Balin has a stylized, one-of-a-kind voice that—besides not going with this silk-shirt production—loses credence once you realize he doesn’t really feel passionate all the way down to his toes about what he’s singing. Only the opening cut, Hearts, written by Jesse Barish, manages to accommodate both the production-über-alles ideal and Balin’s idiosyncrasies. As for the rest well, somebody ought to rewrite I Believe in Music to put it in touch with the Eighties: I Believe in Production. N.C.

RECORDING OF SPECIAL MERIT

BOBBY BARE: As Is. Bobby Bare (vocals, guitar): instrumental accompaniment. Dollar Pool Fool; Learning to Live Again, Call Me the Breeze: Take Me As I Am (Or Let Me Go), Let Him Roll, New Cut Road; and four others. COLUMBIA FC 37157, © FCT 37157, © FCA 37157, no list price.

Performance: Writers’ showcase. Recording: Very good

Turning abruptly away from the approach he used for his last two good, rowdy live al-
bombs, Bobby Bare got Rodney Crowell to produce this one and used Crowell's band, the Cherry Bombs, for most of the back-up. There isn't a Crowell-written song in it, probably because Crowell had to think about getting his own album out, but several of Bare's favorite songwriters—Bob McDill, Townes Van Zandt, Guy Clark—are represented, along with J. J. Cale, the Bryants, and, in the maybe-not-yet-finished She Is Gone, Willie Nelson (Bare found the tune on an old demo tape Nelson had left behind). The songs are not always those writers' best, but they do grow on you and they indicate that Bare's ear is still good. Bare's singing continues to be, in my opinion, among the best you can get, just about totally honest and unforced in a baritone that seems to get richer all the time.

The instrumentation is the usual Crowell synthesis of the best that's going on in Nashville, Austin, and L.A., but it is not radically different from the ways Bare has been backed in the recent past. Most of the time it is straightforward and economical, like Bare's style. It's country, but it didn't just fall off a cucumber truck. There's a worldliness about how both Crowell and Bare do things, but it hasn't worn all the romance off of them.

KURTIS BLOW: Deuce. Kurtis Blow (vocals); instrumental and vocal accompaniment. The Deuce; It's Gettin' Hot; Getaway; Starlife; and three others. MERCURY SRM-1-4020 $7.98, © MCR4-1-4020 $7.98, © MC8-1-4020 $7.98. Performance: Breezy rapping. Recording: Good.

Though rap records had long been a mainstay among black urban youngsters, who take pride in their ability to memorize and rattle off long stretches of apparently nonsensical material with rapid-fire ease, it was Kurtis Blow who, with a little help from clever producers and benevolent winds in the recording industry, managed to popularize the form among the over-eighteen crowd. But in transforming rapping into adult entertainment, Blow has altered its basic style, especially here on his second LP. Whereas earlier rap records by groups like the Sugar Hill Gang were all patter with little music except for a simple rhythm background, "Deuce" features smooth, fully fleshed-out instrumentals and even back-up vocals, with the rap itself handled in an almost melodic manner. And in contrast to the all-but-endless raps of yesteryear, these tracks run from three to six minutes long, just like pop songs. They are tightly constructed numbers featuring a clear statement of the theme of each mini-story before it unfolds in rhyme and is carried to a conclusion. The most engaging tracks are The Deuce, a swaggering, slice-of-life excursion down New York's seamy West Forty-Second Street, and Starlife, a tongue-in-cheek poke at the extravagant lifestyle of today's superstars.

It is all highly listenable and danceable, but there is something just a little too prime-time slick about Blow's raps. His material is too often antiseptically safe, with little of the gritty reality of contemporary black urban life, the seed ground for rap. On the other hand, this record is not intended for kids trapped in the ghetto but for those who have escaped to the downtown discos. That's entertainment! P.G.

THE CARPENTERS: Made in America. Karen Carpenter (vocals); Richard Carpenter (vocals, keyboards); vocal and instrumental accompaniment. Those Good Old Dreams; Strength of a Woman; Back in My Life Again; When You've Got What It Takes; Because We Are in Love; and five others. A&M SP-3723 $8.98, © CS-3723 $8.98, © BT-3723 $8.98. Performance: Cheery. Recording: Very good.

Karen and Richard Carpenter, the brother-and-sister act from New Haven, are still singing songs as innocent and innocuous as their pleasant, pretty faces. Actually, Karen does most of the singing, with her brother and sometimes the "Carpettes" or "O.K. Chorale" providing vocal accompaniment. To tell the truth, a few of their songs are beginning to sound a more sour note, as in Strength of a Woman, whose heroine promises, like the doormat she must be, to wait for her lover until his other affair is over and he comes back to her. That's how it is with the Carpenters' songs: liars are forgiven (Someone's Been Lying), prayers are answered (Those Good Old Dreams), hearts beat together (Touch Me When We're Dancing). And even when disillusionment sets in, the style is so bland and cheery that you just know everything will come out all right—the errant lover will return, the sadness will end, the morning will "come through" and there will be "no dark horizons, only blue." I guess that's their appeal in these hard times. P.K.

JOHNNY CASH: The Baron. Johnny Cash (vocals); instrumental accompaniment. The Baron; Mobile Bay; The Hard Way; Hey, Hey Train; Thanks to You; The Greatest Love Affair; and four others. COLUMBIA FC 37179, © FCT 37179, © FCA 37179, no list price. Performance: Pilant. Recording: Very good.

"The Baron" is a bit of a letdown after Rockabilly Blues," but, as Bobby Bare said, "If they figure out what you're going to do next, they'll file you away in a category." This is characterized mainly by the most... well, the most production on a Johnny Cash album since his TV-show days, some of it unreconstructed Nashville Sound, also known as mainstream Billy Sherrill. At the same time, much of it is aimed at those grandpa-country-red-necks-in-Big-John's-attic who love his recitations of stories with O'Henry endings. It's getting so you can anticipate the twists to come in the Baron, A Ceiling. Four Walls and a Floor (which, being by Tom T. Hall, still tells a pretty good—and tough—story in a touching way), Chattanooga City Limit Sign, and even The Greatest Love Affair, which is a schmaltzy love song to Amurrica (need I say more?).

For all that, Cash does continue to show a good ear for a song, and his singing now is more sonorously accurate than it's ever been. And once in a while Sherrill lets the boys play. You can have some moments with this, but the moments with the "real" Johnny Cash in (Continued on page 84).
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ROSEMARY CLOONEY  
"You've got to learn to take care of yourself"

Legend tells us that once upon a time—just about thirty years ago, actually—there was a cozy, comfy Dream America presided over by an endlessly smiling, endlessly benign father figure named Ike and his cute little wife Mamie. In those days, before Elvis and the musical Visigoths who followed him shook things up, we all happily listened to Nice Music performed by Nice People.

"The Fifties were apple pie, the American flag, motherhood, and The Ed Sullivan Show. You didn't ask questions. Even if you were married to a man, you didn't ask for explanations of his behavior. It was always, 'I'm the wife and you're the husband.' I listened recently to a duet I did at Paramount called Man and Woman, and it gave me the strangest feeling. It was completely manipulative on the woman's part and very condescending on the man's part. But I thought it was just fine—then."

That's Rosemary Clooney, one of the nicest of the nice performing stars of the time, speaking about being drawn into the prevailing cant. She may have been even more deeply indoctrinated than the average person, since the Hollywood-instructed American mass audience has always demanded of its pop stars that they reflect back glorified images of itself.

Clooney's first hit was in 1951, and she was a major star in the movies, on TV, and on records by the time Elvis arrived in 1956. Thirty years later she's in New York to promote her wonderful new Concord Jazz album "With Love." She's still radiant, still genuinely a nice person, still a star, but today it's on her own terms. It was very different when she started out.

"It was a time of band singers becoming individual personalities. It really was a singer's time. Mitch Miller, who had so much to do with my early success, was autonomous within his record company [Columbia]. He could call up the sales department and say, 'We're going to ship 300,000 on consignment.' He had total control; he coordinated everything. Sure, it was all very paternalistic. I never saw an arrangement until I got to the studio; I was handed the material with the implication, do it or else. But, truthfully, all I ever wanted in those days was a hit. I wanted terribly to be a success, and I never felt manipulated because I didn't know there was any other way. We all seemed anxious to accept our limits in those days."

The quick and lasting success of rock-and-roll took Clooney and other "nice" performers by surprise. "Mitch told me that it was only going to last about six months and then it would be all over. I think he was the most surprised man in the world when the whole business changed around. I got to wondering about it a little because I heard rock on the radio all the time, and then I saw what was happening to my record sales and to those of some other singers. I don't think that the first rock-and-roll records were very well recorded, whereas we were kind of proudful that we were making strides in recording techniques. We were using bigger control boards and better microphones and having a lot of new equipment brought in. But all of the rock stuff that I heard in the beginning sounded as if it had been recorded in a toilet somewhere, and the music was something I couldn't seem to relate to at all. I could always relate to jazz, but even that took a dip."

The four top-selling female singers of the Fifties were Rosemary Clooney, Doris Day, Patti Page, and Kay Starr. I asked Clooney why she thought she was the only one of us still performing, still recording, still a star. She hesitated for a moment and then said quietly: "Probably because of the time I spent in the hospital after my nervous breakdown. The eight years of analysis I started from scratch again, getting my priorities straight about what's important and what isn't."

"I think that today I have a better approach to everything, that I can deal with the feelings I have now instead of any of the residual feelings from back then. All that garbage has been cleaned out. When I find a piece of material that's new to me now, such as Billy Joel's Just the Way You Are or Paul Anka's Alone at Last on the new album, I can meet it and sing it on its own terms. There's no more of that wishfulness I used to have no matter what song I was doing, which came from my wondering, 'God, am I ever going to get out from underneath all this?' There's no feeling any more that I have to fit the song to that 'thing,' that performer named Rosemary Clooney, which I had created and which wasn't me at all."
her in the way that it built for her father, who doesn't have her talent, or the way it built for me. She's going to country-and-western, but I think she's limiting herself tremendously. Not that I have anything against country-and-western. I admire someone like Dolly Parton a lot. I love the way she writes and the way she sings and that public personality of hers. Nine to Five, for instance, is a positive, sensitive song."

Clooney has some good words to say about others of today's songwriters, especially James Taylor: "He's my favorite. He's somethin'! People are faced with so much more up close today than they were back in the days when I was singing Come On 'a My House, and writers like Taylor are saying some really positive things, although it may not sound that way on the surface. For instance, all of the things he says about being crazy, and then not being crazy any more, about being scared and not being scared. If I were ever to write I'd like to be able to reflect my feelings as honestly as he obviously does.

"I only met James Taylor once. I was working at the Huntington Hartford and he was at the Pantages in Hollywood. I ran over in my costume, saw the last half of the concert, and went backstage. He entered this room filled with every big movie star in the world, came directly over to me, and said, 'I'm glad you're here.' I said, 'Thank you. I'm a tremendous fan of yours'—and I was truly shy about telling him that. Then he looked at me and said, 'Are those really your nails or are they false?' I told him they were mine, and he said, 'They look very strong. Guitar players always look at people's nails.'"

The five Concord Jazz albums that Rosemary Clooney has recorded over the past few years display a singer at the height of her creative powers. The familiar Clooney warmth and humor and, yes, radiance are all still there. But there is also a whole new person and artist. If you want to hear what a lovely difference twenty-five years or so of living a life can make, simply compare her famous Fifties record of Tenderly with her new version on "With Love." Enough said. If you're any kind of connoisseur of singing, you should certainly get the new album—and the four that preceded it. And there will be others after this one. As the lady herself says, "I intend to go on singing and recording as long as there is anyone left to listen to me." That's the best news I've heard in a long time.

—Peter Reilly

ROSEMARY CLOONEY: With Love. Rosemary Clooney (vocals); Scott Hamilton (tenor saxophone); Warren Vaché (cornet, flugelhorn); Cal Collins (guitar); Nat Pierce (piano); Cal Tjader (vibes); Bob Maize (bass); Jake Hanna (drums). Just the Way You Are; The Way We Were; Alone at Last; Come In from the Rain; Meditation; Hello Young Lovers; Just in Time; Tenderly; Will You Still Be Mine. Concord Jazz CJ-144 $8.98, © CJ-144 $8.98.

An Unforgettable Experience

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and Save the World, almost a vaudeville number, both have some very funny lines. Unconsciousness Rules and Teardrops are oddly up-tempo numbers about lost souls that might be in other hands. They have serviceable melodies and careful production, though, and the same can be said of the three songs here that make a pitch for the comforts of religion (Life It-
self, That Which I Have Lost, and Writing's on the Wall). I gave up expecting much from George Harrison, quite some time ago, but I have to admit that this one is not bad, not bad at all.

J.V.

RICK JAMES: Street Songs. Rick James (vocals, guitar, bass, percussion); the Stone City Band (vocals and instrumentalists); other musicians. Give It to Me Baby; Ghetto Life, Mr. Policeman, Super Freak, Fire and De-
side; and three others. GORDY GB-1002M H $8.98, © G8-1002-H $8.98, © CS 16049 $8.98.

Performance: Punk funk

Recording: Good

I'll give Rick James credit for being one of the few newfangled r & b folks who is trying to say something in his music. As a pur-
veyor of "punk funk," as he calls it, he blends freakishness, funk, and social protest with the usual love themes, pouting it all out to brazen, beat-heavy music. In this case, the message is better than the music, which tends to merge into one big thumping blur. Perhaps the blur is caused by the en-
mous cast employed here. I counted over fifty names in the credits, including such fascinating ones as the Temptations, Teena Mari-

ne, and the Wonderettes—who offers a spicy harmonica solo on Mr. Policeman—a protest against police brutality.

Since this is partially a concept album, a good many of the selections deal with ster-
cotypical features of ghetto life such as growing up hanging out on street corners passing joints (I find it difficult to reconcile James' picture on the cover—elaborately coiffed, expensively clad, wearing thigh-high red leather boots—with the realities of poverty, but at least he is ad-
ressing a serious subject in music that is energetic if not always imaginative. P.G.

ELTON JOHN: The Fox. Elton John (vocals, piano); vocal and instrumental accom-
painment. Breaking Down Barriers; Carla Etude; Fanfare; Chloe; Fascist Faces; and six others. GEPHEN GHS 2002 $8.98, © W5 2002 $8.98, © W 8 2002 $8.98.

Performance: A bit weary

Recording: Good

"Yes I am the fox, a fascinating cross/Of sharp as a whip and tough as an ox/Yes I am the fox." Oh, come off it, Elton! You're a marmalade cat with a vast talent to com-
mical. As his new LP, Save the World, almost a vaudeville number, both have some very funny lines. Unconsciousness Rules and Teardrops are oddly up-tempo numbers about lost souls that might be in other hands. They have serviceable melodies and careful production, though, and the same can be said of the three songs here that make a pitch for the comforts of religion (Life It-
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ne, and the Wonderettes—who offers a spicy harmonica solo on Mr. Policeman,a protest against police brutality.

Since this is partially a concept album, a good many of the selections deal with ster-
cotypical features of ghetto life such as growing up hanging out on street corners passing joints (I find it difficult to reconcile James' picture on the cover—elaborately coiffed, expensively clad, wearing thigh-high red leather boots—with the realities of poverty, but at least he is ad-
ressing a serious subject in music that is energetic if not always imaginative. P.G.

ELTON JOHN: The Fox. Elton John (vocals, piano); vocal and instrumental accom-
painment. Breaking Down Barriers; Carla Etude; Fanfare; Chloe; Fascist Faces; and six others. GEPHEN GHS 2002 $8.98, © W5 2002 $8.98, © W 8 2002 $8.98.

Performance: A bit weary

Recording: Good

"Yes I am the fox, a fascinating cross/Of sharp as a whip and tough as an ox/Yes I am the fox." Oh, come off it, Elton! You're a marmalade cat with a vast talent to com-
mical. As his new LP, Save the World, almost a vaudeville number, both have some very funny lines. Unconsciousness Rules and Teardrops are oddly up-tempo numbers about lost souls that might be in other hands. They have serviceable melodies and careful production, though, and the same can be said of the three songs here that make a pitch for the comforts of religion (Life It-
self, That Which I Have Lost, and Writing's on the Wall). I gave up expecting much from George Harrison, quite some time ago, but I have to admit that this one is not bad, not bad at all.

J.V.

RICK JAMES: Street Songs. Rick James (vocals, guitar, bass, percussion); the Stone City Band (vocals and instrumentalists); other musicians. Give It to Me Baby; Ghetto Life, Mr. Policeman, Super Freak, Fire and De-
side; and three others. GORDY GB-1002M H $8.98, © G8-1002-H $8.98, © CS 16049 $8.98.

Performance: Punk funk

Recording: Good

I'll give Rick James credit for being one of the few newfangled r & b folks who is trying to say something in his music. As a pur-
veyor of "punk funk," as he calls it, he blends freakishness, funk, and social protest with the usual love themes, pouting it all out to brazen, beat-heavy music. In this case, the message is better than the music, which tends to merge into one big thumping blur. Perhaps the blur is caused by the en-
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Since this is partially a concept album, a good many of the selections deal with ster-
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ELTON JOHN: The Fox. Elton John (vocals, piano); vocal and instrumental accom-
painment. Breaking Down Barriers; Carla Etude; Fanfare; Chloe; Fascist Faces; and six others. GEPHEN GHS 2002 $8.98, © W5 2002 $8.98, © W 8 2002 $8.98.

Performance: A bit weary

Recording: Good

"Yes I am the fox, a fascinating cross/Of sharp as a whip and tough as an ox/Yes I am the fox." Oh, come off it, Elton! You're a marmalade cat with a vast talent to amuse—or at least you used to be. Another couple of albums like "The Fox" and you'll become as ponderous, sententious, and so-
liptic as your more "serious" colleagues. The danger signs here include a barrel -of -lipsistic as your more "serious" colleagues.

THE MANHATTAN TRANSFER: Mecca for Moderns. The Manhattan Transfer (vocals); instrumental accompaniment. On the Boulevard, Boy from New York City, Spies in the Night, Smile Again; Kafka; and four others. ATLANTIC SD 16036 $8.98, © CS 16036 $8.98, © TP 16036 $8.98.

Performance: Boring

Recording: Elaborate

This is yet another overproduced, gim-

micky, leadenly cute album by this tiresome

(Continued on page 90)
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THE piece of work that comes after your best piece of work is a problem, especially if you work in public. Music-business executives used to try to force performers to follow hit singles with tunes that sounded as much like them as possible. It almost always turned out to be a mistake. Today's album orientation makes the next-record problem even knottier.

In the case of Arlo Guthrie, it is a further complication that his last and best album, "Outlawing the Blues," was a sort of summary statement about his life up to then, and its starting words, "In the event of my demise," putting chilling thoughts in the heads of those who knew something of the Guthrie family history. According to Joe Klein's Woody Guthrie, A Life, Woody had eight children and half of them died tragically, either from accidents or of Huntington's disease, which Woody inherited from his mother and passed along. Arlo's songs didn't mention this directly, of course, but there's a fifty-fifty chance that he inherited it too, and Arlo has four children. How does one follow a piece of work that deals, however obliquely, with something like that—and is a critical high-water mark to boot?

Arlo has elected, after a two-year hiatus, to do something more or less completely different. His new "Power of Love" is more elaborately produced than we expected, has very little autobiography in it, doesn't even remind us of folk music, is apolitical, and has almost none of the whimsy and humor we expect of Arlo Guthrie. It is a potpourri. Three songs—including a Jamaica Farewell without vibes, if you can believe it—have island imagery and rhythms, but the album doesn't have a single unifying flavor, let alone a theme. There's a nice Jimmy Webb song, Oklahoma Nights, with strings; a no-frills (and no-folk) rock thing, Give It All You Got, which gives the impression of being played louder than anything else; a duet with Leah Kunkel on If I Could Only Touch Your Life, by Aaron Schroeder and David Grover, one of those ultraromantic songs in the vein of You Light Up My Life that's given over almost entirely to the dramatic buildup; David Mallett's Garden Song, a piece for children in which Arlo is backed vocally by his own and the sidemen's kids; and so forth and so on—in short, a bunch of seemingly unrelated selections.

The album is, I suppose, an attempt to attract a broader, more pop-conscious audience. If you take the songs one at a time, they stand up pretty well—with a couple of exceptions. I'm not sure we needed Jamaica Farewell again, even with Ricky Lee Jones' baby-voiced harmony added, and Give It All You Got is simply not very interesting. Arlo wrote only two songs here, and one of those, Living Like a Legend, retells the by-now threadbare story of a musician's life on the road. I like Jim Horn's recorders imbedded in the opaquely arrangement of the title song (written by Bob Dylan's pal T-Bone Burnett), but it wasn't until the fourth selection, Waimanalo Blues, that I found one that I didn't think was at least somewhat overproduced.

But Leah Kunkel is terrific, the album is tuneful, most of the lyrics are interesting if not exactly riveting, the arrangements are mostly pretty good in spite of their being crowded, and Arlo still sounds like his old self. I don't know whether the pop masses will glom on this album or not. With all my expectations and long history of liking Arlo the folkie, I can't imagine what kind of impression it might make on kids who come upon it cold. The thinking nowadays seems to be that the pop masses want music that is bland, escapist, without tension. Not much of "Power of Love" fits that bill, and Arlo doesn't fit the mold of a purveyor of that kind of pop. Even in the thick of this expensive production, he doesn't come across as market-oriented or other-directed. The album may be easy to listen to, but it may be full of "elements stylistically, but nothing in it really contradicts what we have come to believe are Arlo's values or his vision.

In any case, the album follows up "Outlawing the Blues" in a way that titillates the machine and ends the game, in the way apples follow oranges, thwarting comparisons left and right. Does it mean a New Direction for Arlo? Probably not, but it might open up some elbow room for him. If many people think they know what a performer's going to do next, the performer is in trouble, and if he repeatedly proves them right, he's in worse trouble.

—Noel Cappage

ARLO GUTHRIE: Power of Love. Arlo Guthrie (vocals, guitar, piano); Leah Kunkel (vocal); Russ Kunkel (drums); Bob Glaub (bass); Jai Winding (keyboards); Hadley Hockensmith (guitar); other musicians. Power of Love, Oklahoma Nights; If I Could Only Touch Your Life; Waimanalo Blues; Living Like a Legend; Give It All You Got; When I Get to the Border; Jamaican Farewell; Slow Boat; Garden Song. WARNER BROS. BSK 3558 $7.98, © M5 3558 $7.98.


HILLY MICHAELS: Lumia. Hilly Michaels (vocals, drums, guitar, keyboards), instrumental accompaniment. Look at That Face: Our Love Will Last Forever; I've Got No Right to Love You; In the City, I Still Think About You; One; and four others. WARNER BROS. BSK 3566 $8.98, © M5 3566 $8.98.


Hilly Michaels' first album, "Calling All Girls," was a triumph of one-dimensional pop virtuosity: upbeat, clever, totally danceable, light as a feather. For her second album, Michaels has broadened her sights, exploring a range of pop styles with mixed success. "Lumia" reveals him to be a facile songwriter and a polished, versatile performer. He's also a shrewd casting director. The album's credits drop a few of the more durable studio names: Dan Hartman, Elliot Randall, Rick Derringer, Ian Hunter, Mick Ronson, and Rupert Holmes. Such aristocratic support contributes to an album of clean, precision-crafted, energized music that struggles to be more than just pop. If too many of the songs fail to transcend their formulas, that may be because Michaels hasn't given his talents enough focus. "Lumia" doesn't seem like the creation of a coherent musical personality, but rather an attempt to show mastery of a whole range of styles.

There are some great moments, particularly Reach for the Vitamins, an act of desperation by a man who's met his match in bed, and the eminently danceable Look at That Face and Assembly Line. These three good-naturedly zero in on a whole slew of Eighties affectations. Most of the others are formula pieces that don't hit any mark at all.

RECORDING OF SPECIAL MERIT

STEPHANIE MILLS: Stephanie. Stephanie Mills (vocals); vocal and instrumental accompaniment. Winner: The First 25 Years—The Silver Anniversary Album (see Best of the Month, page 70)

JOHNNY MATHIS: The First 25 Years—The Silver Anniversary Album (see Best of the Month, page 70)
You never know what you'll discover when you take your pictures with the sharpest color slide film.

The sharper you want your memories, the more you need Kodachrome film.
Janis Ian: Short Stories

The advance word within the industry was that Under the Covers, the first track of Janis Ian's new album, "Restless Eyes," would be another mass-audience hit on the order of her smash At Seventeen. If that happens, it will have to be without the benefit of much airplay, since the powers that be have decided that the lyrics are too lewd for our ears (compared with the average pre-teen conversation these days, it's as much as what was To a Skylark). Under the Covers, a revue on the quality and style of Latin men as lovers, is a typically fine piece of writing and performing by Ian. Like all her work, it's distinguished by an earthy but romantic sensibility that expresses itself fearlessly regardless of the social climate.

The whole album, in fact, is like a collection of short stories by a writer of the caliber of Katherine Mansfield or Anna Kavan. Some of Ian's tales are unqualified successes: Restless Eyes, about two people who "settled" for each other and are sadly uneasy about it; I Believe I'm Myself Again, about the guilt-free pleasures of being out of love; and Dear Billy, a stinging piece about the rage and confusion of a young wife deserted by her husband. Others are merely brief, perceptive vignettes (Passion Play, Sugar Mountain). But everything here, whether dark or light, angry or giddy, is suffused with mood, intelligence, and the authority that comes from writing about what one knows firsthand. —Peter Reilly

JANIS IAN: Restless Eyes. Janis Ian (vocals, guitar); instrumental accompaniment. Under the Covers: I Remember Yesterday; Passion Play; Dear Billy; Sugar Mountain; I Believe I'm Myself Again; Restless Eyes; Get Ready to Roll; Down and Away; Bigger Than Real. COLUMBIA FC 37360, © FCT 37360, © FCA 37360, no list price.
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**STEVIE NICKS**

**STEVIE NICKS may have a voice uncannily reminiscent of a no-nonsense c-&-w belter like Brenda Lee, but she has the soul of a girl who writes "How true!" in the margins of Kahlil Gibran books. She's a moon calf who has consciously fashioned her image after the kind of heroine who used to dwell in Donovan songs, long-haired child sirens who, when not pining for faithless lovers, sit strumming sad songs by the sea in the misty, moisty morning. You get the feeling she thinks La Belle Dame sans Merci is a beautiful woman who never says thank you.**

In the context of Fleetwood Mac, Nicks' doc-eyed Lady of the Canyon amateurism nevertheless resulted in a lot of genuinely appealing music. Propped up by colleagues whose roots are considerably earthier (the blues, that is) and whose creative command of the recording medium is as accomplished and imaginative as that of any rock band since the Beatles, her wistful little songs seemed not so much silly as touching in their naiveté, sonic wallpaper (Sara, on "Tusk," for example) that you could get lost in as long as you didn't think about it too much. In short, she's the Ringo of Fleetwood Mac, although she's certainly cuter than Ringo and she can carry a tune.

In the context of "Bella Donna," however, her new Jimmy Lovine-produced solo album, Nicks is about as much fun as a dramatic reading from the latest Harlequin romance. Lovine has surrounded Nicks with the usual L.A. spare parts—refugees from Linda Ronstadt and Elton John sessions—who provide the usual L.A. licks. The results are as parched as you might imagine, high-gloss and completely without character or spontaneity. Without the Macs' quirky underpinnings to bolster them, Nicks' songs are revealed for the undergraduate mewlings they really are, wispy banalities about the vagaries of Love in the Fast Lane set to tunes as flimsy as tissue paper. After the Glitter Fades has an uncharacteristic directness and honesty about it, but it's hard to be astonished by its one Big Insight, that its protagonist carries on the way she does because it's the only life she's ever known. Even the songs she does with Tom Petty and the Heartbreakers provide little relief. Petty's own Stop Draggin' My Heart Around is a minor effort, sounding like the stuff he wisely left out of his great Refugee, while Nicks' Outside the Rain has a profile so low that it's invisible. As a capper, her voice is recorded in such an unflattering way as to kill what little charm remains.

The lame little conceit of the title tune is of course the album's giveaway. Doubtless intended to ring with romantic greeting-card associations, it also has the advantage of Another Level: foreign-language stuff is always good when you want to wrap yourself in poetic profundity (just ask Patti Smith). But I wish somebody had given Nicks a copy of Ambrose Bierce's The Devil's Dictionary before she committed this nonsense to vinyl. Says Bierce, "Bella don-na—In Italian a beautiful lady, in English a deadly poison, thus proving the similarity between the two languages." Now that's profundity!  

—Steve Simels

**STEVIE NICKS: Bella Donna.** Stevie Nicks (vocals); Tom Petty and the Heartbreakers (vocals and instrumentals); other musicians: Bella Donna, Kind of Woman; Stop Draggin' My Heart Around; After the Glitter Fades; Edie of Seventeen; How Still My Love; Leather and Lace; Outside the Rain, The Highwayman. Modern MR 38-139 $8.98, © CS 38-139 $8.98, © TP 38-139 $8.98.

grand, expansive settings. And so the Moodies once again blaze off into the sunset and hurdle through trackless voids, mixing metaphors and dipping again and again into the well of dreams, deepest night, and perfect love. "Voyager" sparkles with lyric rhinestones, but I think my favorite is Graeme Edge's 22,000 Days, a figure supposed to be the length of the average human life span. Unwittingly amusing imagery coupled with melodramatic, self-conscious intensity makes it impossible to take seriously even such otherwise promising pieces as Ray Thomas' three-song study of the rock star as jester in Painted Smile, Reflective Smile, and Veteran Cosmic Rocker. Still, the new material all sounds as good as or better than the Moodies' output in the band's heyday, and fans will welcome their capable, assured return.

**RECORDING OF SPECIAL MERIT**


Performance: Fresh and feisty

Recording: Excellent

The four men in this group expend so much energy that I sometimes expect them to burn themselves out before their latest record is over. They never do, though, and on "Walking Wild" they have again come through with a fresh and sassy concert that does them proud. The songs are shorter than they have been in the past, which allows for ten numbers, most of them by leader John Fannon, without a lemon in the lot. I particularly enjoyed the bold and bawdy DDT (which stands for "Dirty Dream Tonight") and L-5, which manages to sound spacy and futuristic without either taking itself too seriously or going on forever. In Don't Ever Let Me Go, the group demonstrates that they can pound out rock rhythms as relentlessly as anybody in the business, and Heaven, Baby That's All I Want: and three others. RCA AFL-3910 $8.98, © AFKI-3910 $8.98, ® AFSI-3910 $8.98.

Performance: Classy

Recording: Very good

Every now and then the trio called Odyssey pops out of the woodwork to produce a sonically spectacular album full of some of the best singing around. Here at last is an r-a-b record with arrangements that don't sound like a mixture of all the rhythm, horn, and string clichés that long ago wore out their welcome in my house. The crackle (Continued on page 96)
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ling brightness of the instrumentals is a major ingredient, along with the energy-charged vocals, in the success of Roots Suite, a medley of compositions by Al Gordon and Lamont Dozzi. Odyssey sings like a roll of controlled thunder, setting the pace with the opener, a rousing rendition of Patti Austin's I Got the Melody. This album never flags for thirty-six delicious minutes. A knockout.

P.G.

MIKE OLDFIELD: QE2. Mike Oldfield (mandolin, synthesizers, percussion, guitars, keyboards); vocal and instrumental accompaniment. Taurus I; Sheba; Conflict; Arrival; Wonderful Land; and four others. VIRGIN/EPIC FE 37358, © FET 37358, no list price.

Performance: Engaging
Recording: Good

It's been eight years since the occult, tongue-in-cheek masterpiece "Tubular Bells" launched Virgin Records, the film of The Exorcist, and Mike Oldfield's career. That Oldfield never again scaled the pinnacle he reached in 1973 owes as much to a self-effacing charm of Oldfield's best work, but it is still full of relaxing, atmospheric music without an ounce of pretension. M.P.

YOKO ONO: Season of Glass. Yoko Ono (vocals); instrumental accompaniment. Goodbye Sadness; Mindweaver; Dogtown; Silver Horse; Extension 33; No, No, No; and six others. GEFFEN GHS 2004 $8.98, © M5 2004 $8.98.

Performance: Surprisingly melodic
Recording: Very good

Yoko Ono says in the sleeve notes here that she seriously considered quitting this project "because, as some people had advised me, 'It was not the time.' But the question was, when would it be the time?" At certain times work is good for you, and this did at least turn out to be an interesting record—you won't confuse it with the stuff on the radio. For me, as much as I hate to criticize Yoko's singing goes a long way. It's not that she's out of tune all the time; it's her constant threatening to go out of tune that wears me down. I find her lyrics arresting only now and then, but I'm interested in the viewpoint behind them more often than that. What stands out here are the melodies and the instrumentation. The tunes are mostly wide-eyed, childlike, un-fettered—and yet somewhat grandiose. The instrumentals don't do anything outlandish, but they somehow convey both freshness and spectacle, like a big Kurosawa-directed scene. All of it except Yoko's voice seems larger than life. I don't think the album's great, but it makes a nice change of pace from a lot of other things. N.C.

POINTER SISTERS: Black & White. Pointer Sisters (vocals); instrumental accompaniment. Slow Hand; We're Gonna Make It; Fall in Love Again; Should I Do It; and five others. PLANET P-18 $8.98, © PC-18 $8.98, © PT-18 $8.98.

Performance: Routine
Recording: Good

The Pointer Sisters are off their nostalgia kick but unfortunately not on to much of anything else. No matter how good they are as singers and performers—and they are good—they can't operate in a vacuum. This Richard Perry production provides what seems a random selection of indifferent material, all of which the Pointers sing in a thoroughly professional but basically aimless way. The sole exception is Slow Hand, a very good song which they perform with great warmth and style.

P.R.

(Continued on page 98)
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THE REDDINGS: Class. The Reddings (vocals and instrumentals); instrumental accompaniment. Class; Seriously; Main Nerve; and five others. BELIEVE IN A DREAM
FZ 37175, © FZT 37175, no list price.

Performance: Good
Recording: Good

The Reddings' second album is a lot tighter than their first. The songs here are better than average, given the rather flaccid requirements of r & b these days, and there is a very happy and scrappy horn section blowing some delightful riffs. The group's vocal style has settled somewhere between that of the contemporary Commodores and the restoration royalty of the Isley Brothers.

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SERIOUSLY is a good soul ballad, and the instrumental Main Nerve features some pretty and graceful piano by William Joyner. The Reddings are learning fast. J.V.

RECORDING OF SPECIAL MERIT

THE STAPLE SINGERS: This Time Around. The Staple Singers (vocals); instrumental accompaniment. Live in Love; A Child's Life; I Got to Be Myself; and five others. STAX MPS-8511 $7.98.

Performance: Nostalgic soul-folk
Recording: Satisfactory

Here's an album to stir pangs of nostalgia in the hearts of those who recall when the Staple Singers carried the lusty force of their Mississippi gospel and folk roots into the mainstream of soul music in the early 1960s. Though previously unreleased, this material was originally recorded at the old Stax Studios in Memphis when the firm was second only to Elvis Presley as a source of civic pride. Several of the songs were written by Betty Crutcher, one of the many talented composers in the Stax stable. At the time, and they seem direct, earnest, and uncontrived compared with today's soup-up multilayered hits. The three Staples sisters, supported by Pop Staples' unpretentious but tasteful guitar, simply sing from their hearts.

This set features lead singer Mavis Staples far more prominently than in most of the group's other albums from the same period. Her earthy voice with its distinctive hoarse edge soars and dips in the hypnotic cadences of a country preacher. Scant liner information is provided, but a fine mix of horns, rhythm, and an occasional touch of organ capture the flavor of the old Memphis sound. Years in the vault have only served to mellow this music. P.G.

PETER TOSH: Wanted Dread and Alive.

If Bob Marley was the silver-tongued prophet of Rastafarianism, then Peter Tosh is the street-corner evangelist who can't hold the crowd. The message of Rastafarianism is naïvely simple: good vs. evil, rich vs. poor, clean vs. unclean. To make it compelling, it must be delivered with fire. Tosh's songwriting is prosaic at best, and he delivers his songs with cool detachment, never exhorting, never threatening. "Wanted Dread and Alive" does move the way reggae is supposed to move—like a streetwalker in the grip of Satan—but it fails to do the one thing that distinguishes great reggae from the routine: it fails to terrify.

M.P.

THE TUBES: The Completion Backward Principle.

There's nothing like an economic crunch to bring people to their senses. Record labels have had to cut back their largesse, and some of the more extravagant acts, such as the Tubes, have been forced to get down to business. I must say that the Tubes—whose new album photos show them in suits and ties, looking for all the world like a bunch of conservative account executives—sound all the better for it. Some of the kinkly flam-flam remains in the lyrics of the "shocker" songs here, but in general the Tubes seem to be going for the dear old despised bourgeois...
audience along the hallowed pop-rock route. Most of the time "The Completion Backward Principle" sounds like a cross between Chicago and Steely Dan, and it's not unpleasant at all.

Attack of the Fifty Foot Woman, based on a cheesy Fifties drive-in movie, is funny enough and should help satisfy the Tubes' original audience of goofies. But Don't Want to Wait Anymore is not only the standout cut—a glorious pop single if there ever was one—but the one to which the band clearly gives the most attention. Kinky was ever one—but the one to which the old material stands out: the highlights here are Peaches III, a reworking of Peaches en Regalia, and Brown Shoes Don't Make It, a song whose mordant wit makes the tawdri ness of Zappa's new tinsel all the more apparent.

JOE VITALE: Plantation Harbor. Joe Vitale (vocals, drums, keyboards); Joe Walsh (guitar); Timothy Schmit (vocals); Don Felder (vocal, drums, keyboards); Joe Walsh, Timothy Schmit, and Don Felder are present in various supporting roles, but none of them works too hard, and guest appearances by Stephen Stills and Graham Nash don't add much either. There is a telephone conversation between Vitale and Walsh (it leads into Bamboo Jungle) that seems meant to reassure Eagles fans—and, perhaps, the Eagles themselves—that it's a sabbatical, not The End. We'll see.

FRANK ZAPPA: Tinsel Town Rebellion. Frank Zappa (vocals, guitar), vocal and instrumental accompaniment. Love of My Life, I Ain't Got No Heart, Panty Rap: Tell Me You Love Me, Fine Girl, Easy Meat, For the Young Sophisticate, Dance Contest, and seven others. BARKING PUMPKIN PW2.37336 two discs, © WAX 37336, © WTX 37336, no list price.

Performance Chilling Recording Excellent

I began listening to Frank Zappa and the Mothers of Invention in high school, more than thirteen years ago, and for years afterward I devoured each new release of his with unseemly passion. Among the things of lasting value Zappa introduced me to were contemporary jazz, twentieth-century classical composers, and healthy skepticism.

About five years ago, however, Zappa's devastating satire seemed to collapse into a weary and wearying cynicism. On "Overnight Sensation" and "A-postrophe" his strange inventiveness, a product equally of his eagerness to experiment and his disdain for popularity, was abandoned for a bitter mixture of "fusion" music and Caesar's Palace put-downs. The new live set, "Tinsel Town Rebellion," is a sixty-two-minute hodgepodge. It seems there's nothing Zappa doesn't dislike, and his targets here are as banal as the worn-out stage act he's been dragging around for years: Mexican tarts, Brut cologne, Cosmo, the record biz, fast food. He makes these cheap shots with such condescension he must think he's the only one left who isn't sick, stupid, or crooked. Zappa's music, too, seems to have reached a dead end. There are a few ingenuous instrumental passages or choice solos, but for the most part he fills out the concert with mock-Las Vegas formula stuff. The abundant synthesizer sounds are the kind of thing he would have once parodied, not duplicated. As with other recent live packages, the old material stands out: the highlights here are Peaches III, a reworking of Peaches en Regalia, and Brown Shoes Don't Make It, a song whose mordant wit makes the tawdri ness of Zappa's new tinsel all the more apparent.

As dispiriting as Zappa's creative decline is his evident growing contempt for women and for his audiences in general. His fans deserve better than a hypocritical dedication of the album to "all our friends who have attended our concerts year after year, all over the world, without whose support these performances would not have been possible." Zappa's real feelings for those "friends" are shown by Dance Contest, in which several members of the audience are egged on to participate in a grotesque, humiliating game. Zappa's antics aren't funny any more, let alone liberating—just irritating and nasty.

M.P.

(Continued overleaf)
THE MURA RED SET III. TRUE SPECS.

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THEATER • FILMS


Performance: As they were
Recording: Good

Ralph Bakshi's film American Pop has as its subject the last couple of decades of American popular music and performers. This album drawn from the soundtrack includes recordings by a wide variety of performers, from Dave Brubeck to Jimi Hendrix to the more commercial Mamas and Papas to the real-life pop cartoon known as Fabian. It is an interesting anthology, but there's nothing here that particularly makes me want to see the movie. P.R.


Performance: Very good
Recording: Excellent

The Great Muppet Caper takes the Muppets noisily to London, where Kermit the Frog and Fozzie the Bear attempt to mend their reputation as a competent reporter-photographer team after they are fired from a New York newspaper. A far more stimulating entertainment than its predecessor, The Muppet Movie, the Caper threatens the soignée Miss Piggy's wholesome relationship with Kermit as the wicked Nick Holiday (Charles Grodin) tries to steal her favors along with the fabulous jewels of his cousin Lady Holiday (Diana Rigg). Miss Piggy's right to stardom has never been less in doubt as she and her friends delightfully spoof movie history. Joe Raposo's songs, however, with their Silly Symphony melodies and lyrics tied closely to the action, are less than delightful heard on their own.

Still, the album has its moments: the music for Miss Piggy's underwater fantasy is a marvelous parody of the kind Esther Williams used to swim to, and the song accompanying the action in the unspeakably seedy Happiness Hotel is splendidly grubby. On the whole, though, this is more a souvenir of the film than an independent piece of musical entertainment. P.K.

(Continued on page 102)
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Send for our half-speed-re-mastered, Audiophile Master Edition of Aaron Copland's "Billy the Kid" and hear the music you've been missing.

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SWEET THUNDER AUDIOPHILE MASTER EDITIONS

CIRCLE NO. 66 ON READER SERVICE CARD
Come to the Cabaret

ABLE into a cocktail lounge that features a singer these days and chances are you'll find yourself assaulted by an ego-ridden program delivered with uncalled-for exuberance by a part-time model with wildly inappropriate ambitions. It wasn't always thus. There was a time when, say, Bobby Short had real competition in places only the locals knew existed, when singers didn't shout "Look at me. I'm going places!" but invitingly suggested, "Hey, check this song out." It was a time, moreover, when song lyrics were clever constructions meant to be conveyed with as much skill in accent and timing as a Shakespeare soliloquy.

Bobby Troup was one of the more prominent song interpreters in that time. He also wrote his own songs, and he had the additional distinction of being married to another fine singer, Julie London. "In a Class Beyond Compare" is an Audiophile Records reissue of a set of twenty-four songs Troup recorded for World Transcriptions in 1958. It captures perfectly his intimate, whimsical performing style, and it's a showcase for his songwriting as well; thirteen of the selections are his own—including Route 66, which became a hit in the hands of the Nat King Cole Trio.

If the Alec Wilder school of songwriting appeals to you, so will Bobby Troup's flawlessly delivered material, and if you fear that the art of stylish supper-club singing will vanish after the retirement of Bobby Short (an event I trust we are not likely to see for some time), let me allay your anxiety by introducing you to a young artist named Meredith d'Ambrosio, who bills herself simply as Meredith. While not as original a stylist as Troup or Short, she does an admirable job of helping to keep the cabaret genre alive. And besides singing the standards, Meredith offers a sympathetic interpretative voice to such current composers of supper-club material as Dave Frishberg and Stephen Sondheim.

Meredith's new Shiah release, "Another Time," is her second album. Like her first, "Lost in His Arms" (Spring SPR), it appears on a small, private label of the kind whose releases usually end up, for lack of adequate promotion and distribution, stacked in somebody's closet or basement. That would be a real shame in this case, for "Another Time" offers connoisseurs fine versions of eighteen songs by (collaborators included) twenty-three writers. There's only one duplication among the forty-two selections in these two albums—Hoagy Carmichael's Skylark—so I can enthusiastically recommend them both to anyone interested in the arts of songwriting and song delivery.

—Chris Albertson

BOBBY TROUP: In a Class Beyond Compare. Bobby Troup (piano, vocals); Al Viola (guitar); Bobby Enveldson (bass). It Happened Once Before; Route 66; Lulu's Back in Town; Daddy; Do Re Mi; Lemon Twist; Skylark; Lullaby of Birdland; You're in Love; They Didn't Believe Me; Hungry Man; Tangerine; I'm with You; Tell Me You and I; The Gypsy in My Soul; You're Looking at Me; Baby, Baby All the Time; Heidi; Their Hearts Were Full of Spring; Cuckoo the Clock; Dream of You; They Can't Take That Away from Me; The Three Bears; Indiana. AUDIOPHILE © AP-98 $7.98.

MEREDITH: Another Time. Meredith d'Ambrosio (vocals, piano). All of Us in It Together; It's So Peaceful in the Country; Aren't You Glad You're You; Rain, Rain (Don't Go Way); Dear Bix; Lazy Afternoon; Where's the Child I Used to Hold; Love Is a Simple Thing; You Are There; While We're Young; Small Day Tomorrow; A Child Is Born; Such a Lonely Girl Am I; The Piano Player (A Thousand and One Saloons); I Was Doin' All Right; Some Day My Prince Will Come; Skylark; Wheelers and Dealers. SHIAR SR-109 $9.95 (plus $1 postage and handling charge from Springfever Music and Publishing Co., Inc. P.O. Box 8, West Newton, Mass. 02165).

CARLA BLEY: Social Studies. Carla Bley (piano, organ); Michael Mantler (trumpet); Gary Valente (trombone); Carlos Ward, Tony Dagradi (reeds); Steve Swallow (bass); other musicians. Utviklingsang: Reactionary Tango (in the parts). Copyright Royalties, and three others. WATT/ECM W 11 $8.98, Ò M5E-11 $8.98.

Performance The Weill school Recording Good

I generally like the slightly off-beat sounds that seem to please Carla Bley, but this latest album is a bit too heavy, and I am not referring to intellectual depth. As a matter of fact, portions of The Reactionary Tango are uncomfortably reminiscent of the sort of Mexican-flavored pop that established Herb Alpert almost twenty years ago, and other passages sound like what Gian Carlo Menotti might write for dancing robots.

Still, there are some fine trombone passages by Gary Valente, who evokes Bill Harris, and Carlos Ward contributes commendable work on alto. Tony Dagradi's Jimmy Dorseyesque clarinet on Copyright Royalties and adds to the foresaken instrument's comeback, but he brings the balance in his favor with his tenor work on Utviklingsang, which translates as Development Song and does not quite live up to its title. Bley is clearly fond of the kind of jazz parodies Kurt Weill composed in the Twenties: studied abstractions of the early jazz forms. The sound has its appeal, but at this point it is not very creative. I think Carla Bley is capable of more originality.

KENNY BURRELL: Heritage. Kenny Burrell (guitar); Shelly Manne (drums); Andy Simpkins (bass); Pafrice Rushen, Pete Jolly (piano); Marshall Royal (clarinet, saxophone); Oscar Brashear (trumpet, flugelhorn); Snooky Young (trumpet); Jerome Richardson, Don Menza (saxophone); Matt Catingub (saxophone, flute); Moacir Santos (percussion). Night in Tunisia, Mood Indigo, St. Louis Blues, 'Round Midnight, When the Saints Go Marching In, Naima, and three others. AUDIOSOURCE © ASD-1 15.98 (from AudioSource Recordings, 1185 Chess Drive, Foster City, Calif. 94404).

Performance Very good Recording Very good

That classy guitarist Kenny Burrell here leads a highly skilled group through a program of jazz classics from the Twenties to the Sixties. Burrell sounds at home on all the tunes, but the youngish back-up group sounds more comfortable with the Nineties choices closest to their own era: Thelonious Monk's 'Round Midnight, John Coltrane's... (Continued on page 104)
Sound so noise-free, it could only be dbx.

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Three new cassette decks from TEAC. Each with a distinctive complement of features. All with built-in dbx. For completely noise-free sound and the broadest musical range possible.
After a five-year absence, Miles Davis has returned to the jazz scene by way of two concerts in the 1981 Kool (née Newport) Jazz Festival and this new Columbia album. Is it really new? Well, we are not given the recording dates, but the personnel are certainly new, and the material has not been heard before. Or has it? There is a disappointing familiarity here, and, at the risk of evoking the wrath of legions of dyed-in-the-wool Miles Davis fans, I have to admit that I wish he had stayed away until he had his act together. This sort of fusion music was interesting a decade ago when it was still fresh, and no one could deliver a more palatable serving of it than Miles. But we have had a glut of it since then, and Miles, of all people, should want to move on.

How ironic it is to see Miles Davis caught on the electronic treadmill himself mounted so many years ago, especially when he is still capable of making music of substance, as is evidenced by some of his work on this album—particularly the final track, Ursula. But for the most part he drowns his excellence in a miasma of sounds so bland that even some of his imitators might feel ill at ease with them. It’s painful to hear this great trumpeter play back-up for a pedestrian vocal on the album’s title tune—like watching Matisse trace a drawing of Mickey Mouse.

Keith Jarrett.

Keith Jarrett’s new two-record set of organ and saxophone (Invocations) and piano (The Moth And The Flame) improvisations is his (and ECM’s) first album to be digitally recorded. This recording follows in the tradition of Jarrett’s solo performances like Köln Concert (which, a few years back, set a new standard for solo piano performance), Solo Concerts, Hymns/Spheres, Facing You, Staircase and the 10-LP set Sun Bear Concerts.

Keith Jarrett.

Invocations/The Moth And The Flame. ECM D1201

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Send for a free catalog and read about these and a dozen more new designs from Speakerlab.

The Swinging Madisons

The Swinging Madisons affect a look that’s pure Holiday Inn lounge act, but their sound is raucous rock-and-roll. The tension between these two impulses, plus the wickedly satirical bent of their song-writing, makes them one of the funniest (and most thought-provoking) rock bands ever to tread a stage. Their new EP catches this dichotomy with near total success. The Madisons drown Donovan’s Sixties kitsch relic Hurdy Gurdy Man in a sea of rockabilly hiccups and echo, simultaneously skewering the song’s insufferable pretentiousness and transforming it into a sublimely silly piece of rock-and-roll; their reading of Volare is similarly inspired. The group’s originals are as sharp as tacks too, with ironic yuks galore in Guilty White Liberal and Put Your Bra Back On, and a really mind-bending parody of psychedelia in My Mediocre Dreams (a song title that may one day sum up the accomplishments of an entire generation). Lead singer Kristian Hoffman puts his lyrics across with a kind of demented nonchalance and a real crooner’s vocal technique, and the band has a rousing good time behind him. In short, this is an auspicious debut by a group that suggests what Spike Jones might be doing now if he had grown up in the Seventies and majored in sociology. More, please.

—Steve Simels


Monk a bit, but the Birds all soar majestically, and they form an overwhelming majority in this swinging menagerie. C.A.

RECORDING OF SPECIAL MERIT

SCOTT HAMILTON AND BUDDY TATE: Scott’s Buddy. Scott Hamilton, Buddy Tate (tenor saxophones); Cal Collins (guitar); Jake Hanna (drums); Bob Maize (bass); Nat Pierce (piano). Swin’ Away; Close Your Eyes; I Want a Little Girl; and five others. CONCORD CJ-148 $8.98. Performance Very good Recording Very good

Tenor saxophonists Buddy Tate and Scott Hamilton have been friends and colleagues for some years, and their camaraderie shows to good advantage in this solid album of two-fisted swing. Tate’s virile tone and robust imagination propel him through both the uptempo and ballad items. Pianist Nat Pierce, who started with Woody Herman and is now a close associate of Count Basie, can nail notes to the floor or make them fly like the tails on a kite—in other words, he’s a wow. Hamilton has an annoyingly fuzzy—almost flatulent—tone on ballads, but when it’s time to turn on the heat he makes the mercury climb, and his ideas are always good. The three solo voices are given excellent support by the svelte and sturdy rhythm section. It’s the kind of happy jazz that isn’t heard often enough. More! J.V.

JOE JACKSON: Joe Jackson’s Jumpin’ Jive. Joe Jackson (vocals, vibes); vocal and instrumental accompaniment. Jumpin’ with Symphony Sid: Jack, You’re Dead; Is You Is or Is You Ain’t My Baby; and nine others. A&M SP 4871 $8.98, CS 4871 $8.98, 8T 4871 $8.98. Performance He means it Recording: Fine

Joe Jackson’s new record of Forties roadhouse swing jazz is not the career aberration (Continued on page 108)
Panasonic has car stereos that eliminate unnecessary noise.

The Supreme Series.

I'd like to say a few words about unnecessary noise. Unnecessary noise from car stereos. Like static, fuzz and interference. Not to mention stations that fade, drift and overlap. They're all the result of one overriding factor. Cars move.

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*Dolby is a trademark of Dolby Laboratories.

Panasonic. just slightly ahead of our time.
THE REVIEW MAN set. And for all the campiness of the English Playboy Club before he achieved it may seem; if memory serves, Jackson performance with singer: Calcutta. It was an impromptu presentation (the cover has Jackson doing a pretty ludicrous Cab Calloway imitation), he clearly loves this stuff for its earthy, jovial vulgarity (the punk rock of its day, as it he clearly loves this stuff for its earthy, jovial vulgarity (the punk rock of its day, as it

JIMMY WITHERSPOON was born in Arkansas, but he chose a distant and most unusual place to make his debut as a blues singer: Calcutta. It was an impromptu performance with the Teddy Weatherford band in the early Forties, when the twenty-year-old Witherspoon was in the Merchant Marine. Soon thereafter, in 1944, Witherspoon joined the Jay McShann band, launching a professional career that has taken him up and down the roller coaster of popularity and left in its wake a good number of fine recordings.

One of Witherspoon's up periods began in the very late Fifties and gained momentum in the spring of 1961 when he made his first European trip. "Olympia Concert" is a superb memento of that trip, a live recording with accompaniment by an awesome all-star band. The solos include some of Buck Clayton's finest post-Basie work, and Witherspoon is in top form, honing to perfection an art for which far too much credit is given Joe Turner. Sure, Turner was there first, and his talent is not to be denied, but his slurred utterings pale beside the smooth, eloquent delivery of Witherspoon. This album is a rich serving, and that helps make up for its being also a skimpy one: barely thirty-two minutes.

—Chris Albertson

JIMMY WITHERSPOON: Olympia Concert. Jimmy Witherspoon (vocals); Buck Clayton, Emmett Berry (trumpets); Dicky Wells (trombone); Earl Warren (alto saxophone); Buddy Tate (tenor saxophone); Sir Charles Thompson (piano); Gene Ramey (bass); Oliver Jackson (drums). I'll Always Be in Love with You; Gee Baby Ain't I Good to You; See See Rider; I Make a Lot of Money; Blowin' the Blues; 'Tain't Nobody's Business; Everything You Do Is Wrong; Roll 'Em Pete. INNER CITY IC 7014 $7.98, © TIC 7014 $8.98.

RECORDING OF SPECIAL MERIT
WARNE MARSH/LEE KONITZ QUINTET: Live at the Montmartre Club. Lee Konitz (alto saxophone); Warne Marsh (tenor saxophone); Dave Cliff (guitar); Peter Ind (bass). Alan Levitt (drums). Kary's Trance; Foolin' Myself; Two-part Invention No. 1, Allegro; Darn That Dream; and four others. STORYVILLE SLP 4026 $7.98 (from the Moss Music Group, Inc., 48 West 38th Street, New York, N.Y. 10018).

Performance: Excellent
Recording: Very good

If you like your reeds free-flowing and cool, served on a sturdy bed of bouncy rhythm, you should have been at Copenhagen's Café Montmartre when the Warne Marsh/Lee Konitz Quintet played there the night of December 27, 1975. If you missed that opportunity but your jazz taste runs to Lennie Tristano, you should welcome this new American release of an album that captures some of the evening's most delicious offerings. And if this group, which had played together only a few days, sounds cohesive in a very Tristano-ish way, that should not be the least bit surprising, for all but one of its members, guitarist Dave Cliff, had at some point in his career served a fruitful apprenticeship with Lennie Tristano.

The two most closely kindred spirits here are the co-leaders, who interacted musically as early as 1949, but everybody performs splendidly and with clear interest in the task at hand. Technically, the sound is crisp and clear, and Alun Morgan's informative notes compound the delight of this long-delayed release.

(Continued on page 110)
No other cassette deck looks, loads, records, or plays like the new Dual 828.

There’s more hands-on involvement with a cassette deck than with any other component. Much more. That’s why you should take a long, hard, critical look at any deck you’re considering. Put it through its paces, get the feel of its controls, the smoothness of its transport, and, of course, listen to tapes recorded on it.

Now, we’d like to tell you a little about what you’ll experience with the Dual 828. And no other deck.

**Direct Load and Lock system**

Switch the 828 on and a protective shield swivels away from the tape heads. To load the cassette, simply place it in the open compartment—there’s no door in the way.

The cassette locks automatically in perfect alignment with the tape heads. You can always remove the cassette instantly—even if the tape is in motion. Photo-electric switches stop the tape the instant your fingers interrupt the beam.

We call this system Direct Load and Lock. And it’s a Dual exclusive.

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Good tape-to-read avoids drop-outs and achieves extended high-frequency response. In the 828, four precisely aligned tape guides make sure this contact is perfect.

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To set up for recording, simply press the record button. That action automatically activates pause. Then to begin recording, press play. (Makes sense, doesn’t it?)

You’ll quickly come to appreciate the computer logic that lets you change mode and tape direction as fast as you like. And if a faulty cassette should ever jam, an electronic sensor stops the tape in a fraction of a second. The tape just can’t tangle, stretch or snap.

**Automatic reverse**

The 828 provides automatic reverse when recording and playing. Thus, a C-90 cassette can actually give you 90 uninterrupted minutes in both modes. Plus continuous repeat in playback.

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Not so immediately evident are the advantages of Dual’s equalized metering system. You may be surprised to learn that although all decks add a high-frequency boost to the incoming signal, only Dual’s equalized meters indicate this boost. The others put more high-frequency signal into the record head than their meters show. And that can lead to overload and distortion.

But with Dual, you can safely record at a level that produces optimum dynamic range. The result: superb recordings every time.

**An exclusive experience**

You can’t have anything like the same experience with any other deck. Because nearly everything we’ve described is a Dual exclusive.

That’s why we doubt that any other deck can satisfy you like the new Dual 828. Especially at its price: less than $500.

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United Audio is exclusive U.S. distributor for Dual.
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CIRCLE NO. 9 ON READER SERVICE CARD SR10

DAVID HAMMOND AND DONAL LUNNY: The Singer's House. David Hammond (vocals, guitar); Donal Lunny (blarge, harmonium); other musicians. My Aunt Jane/Fair Rosa; Wild Sleeve Galles Brae; The Granemore Hare; The Cruel Mother; The Giant's Causeway Train; Bonnie Woodgreen; and six others. GREENHAYS/STRUTHAN GR 702 $7.98.

Performance: Good
Recording: Good

This is (mostly) Irish music with an emphasis on the song, or the story it tells, and the vocals. It is (mercifully, for my taste) free of scratchy fiddles and bleating bagpipes, and it does very well without the usual jigs and reels. David Hammond, a film producer for the BBC, is a resident and native of Belfast. His singing is traditional but not museum-frozen. The instrumental backing is lean, and the songs—other than Matt Hyland, in which the rich girl falls for the servant and the parents give in!—are not overly familiar. The stories are another matter. The Banks of Claudy turns on the "recognition scene" of classical literature, like the English broadside John Riley: the boy returns from some quest and the girl doesn't recognize him until he finds out her love has remained true.

Current events in Belfast don't exactly go with the pastoral concerns of the ballads, but if you're safely away from the fray, the album may round out your picture of the music o' the isle. (A blarge, by the way, is an oversize mandolin made especially for Donal Lunny. It was so named by Seamus Heaney, who wrote the liner notes for this album. On first hearing it, Heaney exclaimed that it made "a blarge of a sound."

N.C.

KINGSTON TRIO: Aspen Gold. Kingston Trio (vocals and instrumentals). Worried Man; Greenback Dollar; Reuben James; Early Morning Rain; Scotch and Soda; and five others. 51 WEST Q 16116, no list price.

Performance: Tired
Recording: Good

One of the first and most successful of the folk groups, the Kingston Trio is back recording after a series of personal vicissitudes that reads like something out of Dostoyevsky. They still sound as bland, good-humored, and banal as ever. Even when they were new and burgeoning, they always had a slightly manufactured aura and sound; in 1981 they sound tired to the point of calcification.

P.R.

STEELEYE SPAN: Sails of Silver (see best of the Month, page 76)
There are hundreds of design choices to make in engineering and producing a loudspeaker. In the best of loudspeakers, the choices are made with a maximum of information, a thorough knowledge of materials, and the understanding that when all these details are added together, the sum is performance.

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Smithsonian Collection: C- & W Classics
Bill Monroe and the Bluegrass Boys—
a category unto themselves

If you were born during or after World War II and in the country instead of a city or suburb, you may feel today—I know firsthand—a little like an immigrant. Starting about then, rural America moved to towns, the guns of a bountiful dog tailed a coon, and it's hard now to realize, looking around at all the concrete and neon and hustling trend merchants, that this country was mostly rural for most of its existence.

But music has powers. Before me is a giant-size, sixteen-side, 143-song record album that (as given) holds our rural roots and our corn-dodger heritage. "The Smithsonian Collection of Classic Country Music" was Bill C. Malone's project. Malone, a teacher at Tulane University and author of several books, is probably the most respected country-music historian we have, and he and our most respected conservatory institution have put together an anthology that not only charts this nation's "prospects" from the cornfields and red-clay hillsides to barstools in honky-tonks and urban-cowboy hangouts but, since it contains the music that was played at the time, gives you the very feel of it.

Starting with a 1922 recording of Eck Robertson's unaccompanied fiddling on "Sally Gooden" and ending with Willie Nelson's 1975 version of "Blue Eyes Cryin' in the Rain," the collection reflects just about everything important that happened during that fifty-odd-year span in America except its black experience. Add to it a parallel project covering ragtime, blues, and jazz, and you'd have the best American history course ever put together. As it is, the country collection covers everything from the soap-making and hog-killing period of the folk heritage to the wartime migration to the cities, the postwar boom, and beyond.

It works so well as a painless history lesson because country music has always talked about what real people were doing and thinking and feeling. For instance, America's seemingly built-in yen to be on the move resulted in an early fascination with trains, the postwar boom, and beyond. This restlessness is evoked here in a classic Jimmie Rodgers recording, "Waiting for a Train," as well as in Vernon Dalhart's "Wreck of the Old 97," one of the first hillbilly hits.

All the selections are arranged chronologically except for the two bluegrass sides. Bluegrass, producer Malone writes, is "the sole recognizable style or subgenre of country music that has developed and preserved a life of its own." The engineers got an unusual amount of music on each side, nine cuts on most, possibly by remastering them at a relatively low level. The older recordings are in mono, of course, but the sound is surprisingly good throughout. You just have to crank up your volume knob a bit.

I also liked to see Waylon Jennings and Emmylou Harris included, but outside of that it's difficult to quarrel with the selections. Oh, there are a few small things: Patsy Cline singing "Faded Love" instead of the Bob Wills band playing it, and then no Patsy singing "Crazy" or "I Fall to Pieces." But it's hard to complain much. For those oddballs among us who were born in the country, the memories evoked by such pieces. And they left out "Okie from Muskogee." But it's hard to complain much. For those oddballs among us who were born in the country, the memories evoked by such

The country music of the first half of the century evokes a life of its own. The engineers got an un

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We're here on earth to learn, I have concluded (possibly because it's clear that I'm never going to make any real money), and this collection has provided the pleasantest learning experience I've had in years. In the booklet Malone wrote to accompany it, with notes on each selection, is almost as valuable as the recordings. I read it, I notice that whereas the state of Kentucky produced a number of repositories of the folk tradition—Bradley Kinkaid, Buel Kazee, Cliff Carlisle, Black Jack David, Riley Puckett, Rubby Licks, Trencher Davis, Sonny Stiner, Le Valse de Geydon, Woody Guthrie, Do Re Mi, Chuck Wagon Gang—Jesse Hold My Hand, Cliff Bruner's Texas Wanderers: It Makes No Difference Now. Gene Autry: You Are My Sunshine. 1941-1953. Ernest Tubb: Walking the Floor Over You. Wiley Walker and Gene Sullivan: When My Blue Moon Turns to Gold Again. Ted Daffan's Texans: Born to Lose. Elton Britt: Texas: Hartford Connecticut Taylor! Ah, they don't name 'em like that any more, now that we've all gotten so citified. You can return to those rural days of yesteryear, though, with this collection, which is the next best thing to reliving them.

—Noel Coppage


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Since sales of digital recordings are about double what could be expected for analog recordings of the same repertoire, record companies label their digital recordings with prominent stickers these days. And the claim “First Digital Recording” is as useful to record companies today as “First Time on LP” and “First Stereo Recording” were in the past.

The first digital recording of Richard Wagner’s monumental operatic tetralogy The Ring of the Nibelung has been expected on the Eurodisc label to be imported here by Arista. It was due for U.S. release in the fall. But Philips is snatching the claim of the first digital Ring away from Eurodisc and plans to release a complete digital recording of the four-opera cycle in October. It was recorded live at the Bayreuth Festival during performances conducted by Pierre Boulez with such soloists as Peter Hofman, Donald McIntyre, Manfred Jung, Matti Salminen, Siegfried Jerusalem, Jeannine Altmeyer, Gwyneth Jones, and others. The set will be complete on sixteen discs packaged in a carrying case that has a retractable handle for easy portability.

The most recent Bayreuth production of the Ring, the one preserved in audio on the new Philips set, was staged by the French director Patrice Chéreau. Using the same artists who are on the records, performances of that Ring production were taped for television last year, and they will be shown on the Public Broadcasting Service in January of 1983 if all goes according to current plans.

Expected in stores by October 1 is a five-disc set of the recordings of the American tenor Mario Lanza (1921-1959) reissued by RCA. Born Alfredo Cocozza in Philadelphia, Lanza made his career not in opera houses, but in such Hollywood movies as The Great Caruso, Because You’re Mine, and Serenade. Discriminating opera fans generally criticized Lanza’s singing, finding it vulgar, but that did not hamper the sale of his recordings, which have continued to find a market. The new set of reissues has been out in Germany for some time, and its success there has been so great that the royalties to Lanza’s heirs for only one quarter in 1981 totaled $140,000.

After opening its ninth season on September 28 with Carlisle Floyd’s opera Willie Stark, Exxon’s Great Performances on PBS will offer varied musical fare to TV viewers in October. Eugene Ormandy conducts the Philadelphia Orchestra from the Academy of Music on October 5 in a program that includes a suite from Strauss’ Der Rosenkavalier and Mussorgsky’s Pictures at an Exhibition. On October 19, Mozart’s La Clemenza di Tito will be telecast in a performance filmed in Rome. The singers include Carol Neblett, Tatiana Troyanos, Catherine Malfitano, Nureyev as Nijinsky as Faun, Enc Tappy, and Kurt Rydl, and James Levine conducts the Vienna Philharmonic.

In a tribute to dancer Vaslav Nijinsky on October 26, Rudolf Nureyev and members of the Joffrey Ballet will re-create three of the ballets most closely associated with Nijinsky: Petrouchka (with a score by Stravinsky), Le Spectre de la Rose (performed to music of Weber), and L’Après-midi d’un Faune (danced to the familiar Debussy prelude). Check local PBS stations for time.

The musical composition that was heard by the largest audience at its world premiere is too new yet to be included in the Guinness Book of World Records. It is Welsh composer William Mathias’ setting of Psalm 67 (“Let the people praise Thee, O God”), composed for the wedding of the Prince of Wales and Lady Diana Spencer and first performed on that occasion at St. Paul’s Cathedral in London on July 29. The worldwide television audience that watched the wedding and heard the anthem when it concluded the ceremony has been estimated to exceed one billion people.

The anthem, a work for organ and chorus made up of sopranos, altos, tenors, and basses, lasts just over four minutes. It was published by Oxford University Press the day after the wedding, and the publishers authorized the first performance in the United States at Plymouth Congregational Church in Minneapolis, Minnesota, on September 13. That church won the honor simply because its choir director, Philip Brunelle,
was the first to say “May I?” Single copies of the sheet music, on whose red cover are depicted the plumes of the Prince of Wales and the Spencer coat of arms, are available for $2.50 postpaid from Oxford University Press, Inc., 200 Madison Avenue, New York, N.Y. 10016.

Prince Charles’ varied musical activities include playing the cello and singing in a Bach choir, but none of his performances have been recorded. At his request New Zealand soprano Kiri Te Kanawa sang “Let the Bright Seraphim” from Handel’s Samson at the wedding and thereby gained the distinction of being the opera singer heard (with TV assistance) by the largest audience in human history. So far as we have been able to ascertain, she has not recorded this aria.

Handel’s Samson at the wedding was among a number of operatic rarities for October 2312 129, distributed by RCA. Containing such compositions as London Gets Ready, Royal Honeymoon, and Lady Di’s Waltz, it was recorded in Toronto and London in April. Also recorded before the fact were two imports from England: “One Thousand English Voices Sing God Bless the Prince of Wales” (Chandos ABRD 1030, $17.98), a program of choral and brass music by massed English male choirs and the Royal Doulton Band recorded digitally in live concert on May 23, 1981, and “Madrigals and Wedding Songs for Diana” (Hyperion A 66019, $15.98), a collection of songs from wedding masques by Thomas Campion and others performed by the Consort of Musick directed by Anthony Rooley. The two imports are available in shops or by mail from Brilly Corp., 155 North San Vicente Boulevard, Beverly Hills, Calif. 90211.

When CBS Masterworks announced in the mid-1970s that it was turning its attention to vocal music, the company planned to avoid duplicating repertoire already available in good recordings and to fill gaps in the catalog of recorded opera. Still living up to that promise, CBS has scheduled three operatic rarities for October release: Handel’s Jexxes conducted by Jean-Claude Malgoire, Jerome Weinberger’s Schwantra the Bagpipe conducted by Heinz Wallberg, and Mussorgsky’s Salammbô conducted by Zoltan Pesko. Also to be released in October is a digital recording of Wolf-Ferrari’s Il Segreto di Susanna, with soloists Renata Scotto and Renato Brunso, conducted by John Pritchard.

CBS Masterworks has also signed an agreement with Italy’s Fonit-Cetra to distribute that company’s products in the United States; included in the catalog are some Rossini operas previously unavailable in commercial recordings. The two companies will also join in a number of co-productions, mostly of operatic repertoire. Already scheduled are a recital album by Marilyn Horne and a recording of Rossini’s Il Turco in Italia with Samuel Ramey and Montserrat Caballé conducted by Riccardo Chailly.

A Fonit-Cetra album to be released here by CBS in October is a recital of early Verdi arias by none other than tenor Luciano Pavarotti, who has hitherto recorded almost exclusively for London. That’s not likely to please Pavarotti’s chief rival Placido Domingo, who has made no secret of his resentment of the superstar status accorded to Pavarotti. Domingo has just made his own bid for a share of the mass audience by recording the album “Perhaps Love” with pop star John Denver, released by CBS in September. CBS October release also includes a Christmas album by Domingo.

C. P. E. BACH: Concerto in A Major for Harpsichord and Strings (Wq. 8); Concerto in D Major for Harpsichord and Strings (Wq. 18). Malcolm Hamilton (harpsichord), Los Angeles Chamber Orchestra, Gerard Schwarz cond. Nonesuch 0 • D-79015 $11.98, © D-1-79015 $11.98.

Performance: Strong
Recording: Luxe

Considering that Carl Philipp Emanuel Bach composed more keyboard concertos (almost fifty!) than anybody else down to this day, it is surprising that so few are still available, and even those rarely. They are remarkable works: the outer movements are bursting with the energy and emotion of the Sturm und Drang, and the middle movements are filled with the yearning melodies of the German “sentimental” style. The solo writing is virtuosic, the orchestral ritornellos and accompaniments robust. It is to Malcolm Hamilton’s credit, then, that he and Gerard Schwarz have added two more of these concertos to the pitifully small recorded repertoire.

Hamilton’s playing is straightforward, driving through the fast movements with an unflagging sense of purpose. The orchestra under Schwarz’s direction is equally unflagging. The orchestra under Schwarz’s direction is equally unflagging, creating a tense dialogue. Although Hamilton’s lyric playing is on the stiff side, the orchestra makes up for it with dynamic shaping of the long phrases.

Performance: Committed
Recording: Quite good

Bartók was twenty-three when he composed this still virtually unknown quintet, which was the first to say “May I?” Single copies of the sheet music, on whose red cover are depicted the plumes of the Prince of Wales and the Spencer coat of arms, are available for $2.50 postpaid from Oxford University Press, Inc., 200 Madison Avenue, New York, N.Y. 10016.

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Performance: Committed
Recording: Quite good

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HERBERT VON KARAJAN is an admirable conductor—that is to say, there is always something to admire in any of his performances. As to admiring his new Deutsche Grammophon collection of music by the Strauss family, which includes ten of the best and best-known waltzes, the two famous overtures, and a good sampling of the polkas, marches, and miscellaneous pieces. The treatment is both straightfor- ward and simple, with all quite subtle at times. The orchestral execution is neat and precise and, in places, breathtakingly beautiful. The sound of the Berlin strings in such passages as the main theme in *Wiener Blut* is among the glories of contemporary music—neither romantically throbbing nor antiseptic but pure, gorgeous silk. The brass too has its high points in this set. Karajan brings a particularly nice feel to the polkas, though the *Eljen a Magyar!* shows that he is not much of a Hungarian (he is, of course, Austrian).

The digital recording is wonderfully clean and open; one can actually hear the various points of the rhythm melody by the first violin in *Tales from the Vienna Woods*. The dynamic range is gratefully wide, and, though the percussion is slightly over-favored for my taste, it does add to the excitement and may well be appreciated by many listeners. I find a few slight but disturbing changes of tempo in odd places and a few equally slight changes of ambiance, both indicating to me (perhaps incorrectly) splices that ought not to have been made. But all in all this is a really excellent set with some glorious high points.

That much said, I confess that I like better a newly imported Eurodisc set conducted by the late Robert Stolz. Why? Stolz, who died six years ago at the age of ninety-five, was certainly not the orchestral master Karajan is. The Berlin and Vienna Symphonies (no indication is given which orchestra plays which selection) are certainly not the concealments of the Berlin Philharmonic. And the undated (but obviously more than six years old) analog recording is not to be compared with DG's digitally mastered one. But Stolz had a foot firmly placed in the older Viennese tradition (he knew Strauss and Brahms, was friends with Lehár), and the idiomatic Viennese acceler- ation, rubato, and *Lustpausen* were second nature to him. Not that he pulls these pieces apart—in the older days he was probably looked upon as a fairly strict time keeper—but his waltz performances have a lift, a quality of floating, a freedom, an expression, and a sense of underlying melancholy (the bittersweetness of so much of the best so-called "light" music) that Karajan's, for all their beauty of sound, simply do not possess. The truth comes out in the several selections present in both albums, and I would certainly urge those who can afford the luxury to buy and listen to both. Even the sound Stolz coaxes from his orchestras, while it is something less than silk, is somehow more evocative, less "internationalized," more Viennese.

There are famous works all through the Stolz album too, but it includes at least one delightful piece I had not heard before—the *Heiligenstädter Rendez-vous*—and a couple of waltzes by Strauss Senior's contemporary, friend, and competitor Joseph Lanner. The Eurodisc recording is really quite decent, though hardly up to the best contemporary standards, miked a bit further away than the DG and with corresponding-ly less detail, more reverberation—in other words, slightly opaque but not unpleasant. But the absence of any sort of notes at all with a full-price two-record set is not to be condoned.

—James Goodfriend


was not published until 1970. Although I believe there was a recording of it on an import label a few years ago, I had not had the opportunity to hear the work until I received this disc for review, and I doubt that I would have connected the music with Bartók if I hadn't seen his name on the label. The ripe Romanticism, obviously Brahmsian, and the allusions to a Magyarism a bit beyond Brahms' similar forays to his "Magyarism" suggest Dohnányi, who was Bartók's piano teacher at the time he began this composition in 1903. But already in the exuberant scherzo there is an earthy, foursquare peasant quality whose nervous meperiosity suggests something new: indeed, the trio seems a deliberate attempt to calm this irription with another dose of Brahms, but the second part of the scherzo proper does more than hint at the identity of the composer whose First String Quartet would appear in 1908, to be followed by the *Allegro Barbaro* three years later. In the long slow movement one finds a sort of groping for the characteristic "night music" that was to pervade so many of Bartók's mature scores—but only a groping, all but submerged in an effusiveness that was not to characterize his style. In the final movement Bartók's own personality, in the voice of the piano, seems almost to be breaking through the Brahms/Dohnányi sumptuousness sustained by the strings; eventually the strings join in what sounds like a hymnic folk tune, and then, all in their upper register, abandon sumptuousness for a pre-echo of the real Bartók.

While this may be neither an especially characteristic work nor an especially important one, it does tell us more about Bartók and his development than, for example, Beethoven's early E-flat Major Piano Concerto and his piano quartets tell us about Beethoven, and it is not without appeal in its own right. The strong, disciplined, communicative performance of Sylvia Glickman and the Alard Quartet bespeaks real commitment, and the sound is quite good.

RECORDING OF SPECIAL MERIT

BARTÓK: Suite, Op. 14; Piano Sonatas: Improvisations on Hungarian Peasant Songs, (Continued on page 118)
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Performance Lively

Recording: Okay

When I listen to Bartok's Suite, Op. 14, especially in a wonderful performance like this one, a little shiver goes up my spine. I have always liked this piece (I still do)—so much, in fact, that I once wrote a piano suite of my own that I now realize, lo these many years, sounds an awful lot like the Bartok Suite, Op. 14.

Well, in those days Bartok was modern music and still hot. Then it became regular symphonic fare and almost every symphonic pops. And from there he passed into that special limbo reserved for once-popular contemporary composers. It makes sense for pianists to take him up now. It was mostly (although certainly not exclusively) orchestral and string music that we heard back then. But Bartok was perhaps the most interesting writer of piano music among the modernists of the first half of this century, and his piano works are both original and appealing.

On this disc we get that, character, Op. 20, and another suite, the colorful, dissonant, but effective Out of Doors. The sonata is a little more tentative, more percussive and dissonant but with a lively, engaging finale. And the little Improvisation, Op. 20, entirely neglected until recently, have been included on several recent recordings. It has become fashionable to connect these very folksy studies with Viennese serialism, and I can't for the life of me see why (someone must have written an overly clever essay somewhere, or perhaps there is a confabulated remark in some reference book and everyone copies it). This music is not particularly modernistic or expressionistic or serial—even compared with many other things Bartok himself did before and after. But it is exceedingly strong, well-written, beautiful music that impresses and moves, especially in this performance. Murray Perahia is an excellent Bartok performer; his playing is clear, lively, full of impulsive and expressive curve. The piano sound is a bit inconsistent for these records and, as we shall see, serviceable.

E.S.

**BACH: Trio in G Major for Piano, Flute, and Bassoon (WoO 37)**

Daniel Barenboim (piano), Michel Debost (flute), André Sennedat (bassoon); Myron Bloom (horn). DEUTSCHE GRAMMOPHON 2531 293 1786. Written in the spirit of a divertimento, the music is full of youthful wit, humor, and melodic charm. The better-known Horn Trio is not on this disc.

The most attractive part of this album is the delightful Trio in G Major, composed in 1786. Written in the spirit of a divertimento, the music is full of youthful wit, humor, and melodic charm. The better-known Horn Trio is not on this disc. **(Continued on page 121)**
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however, some ensemble problems in the final variations, where the double passage work between flute and piano is slightly off kilter. The Horn Sonata is less successful: Myron Bloom's gruff approach and sometimes unfocused tone do not blend with Barenboim's more delicate reading, and a great deal of the musical structure is lost because of constantly fluctuating tempos. The album is of interest nonetheless, thanks to the relative rarity of these pieces. S.L.

BERNSTEIN: West Side Story, Symphonic Dances (see TCHAIKOVSKY)

BRAHMS: Piano Concerto No. 1, in D Minor, Op. 15. Lazar Berman (piano); Chicago Symphony Orchestra, Erich Leinsdorf cond. CBS MASTERSOUND IM 35850, © HMT 35850, no list price.

Performance: On the cool side
Recording: Very good


Performance: Echt romantisch
Recording: Vintage stereo

Many of the more striking aspects of the Lazar Berman/Erich Leinsdorf reading of Brahms' First Concerto grow out of the recording itself: digital mastering and a wide stereo "spread" do much to alleviate the denseness of the opening tutti, and the fugato episode in the finale has seldom sounded forth with such vitality and clarity. Interpretively, I find this reading something of a puzzler. I sense a conflict between Leinsdorf's essentially cool treatment of the orchestral part and Berman's free phrasing and lyricism. Only at the deeply moving climax of the slow movement do things really come together, reaching a peak of genuine eloquence. For all its sonic excellence, this performance largely fails to convey the impetuosity of the music.

The Jakob Gimpel recording derives from 1958 sessions with the late Rudolf Kempe that also produced a Beethoven Emperor Concerto reading still available on Genesis 1002. Gimpel, like Berman, offers a freely romantic, poetically ruminative interpretation, but he and his conductor seem decidedly more together than do Berman and Leinsdorf. Whether one agrees with this approach or not (I prefer a more urgent one), Gimpel and Kempe make a very strong case for it, and Gimpel's handling of the solo role is full of felicitous details. The sound itself is clearly of early stereo vintage, with the piano's midrange rather on the steely side. Some judicious playback equalization may help.

D.H.

RECORDING OF SPECIAL MERIT

BRAHMS: Sonata for Clarinet and Piano in F Minor, Op. 120, No. 2; Sonata for Clarinet and Piano in E-flat Major, Op. 120, No. 2, George Pieterson (clarinet); Hephizabah Menuhin (piano). PHILIPS 9500 784 $9.98, © 7300 858 $9.98.

Performance: Smooth
Recording: Transparent

George Pieterson's beautiful recording of the Brahms and Beethoven clarinet trios...
Mahler's profoundly affecting Ninth Symphony seems to have elicited more outstanding recorded performances than any of his others, beginning with the historic 1938 reading by the work's first interpreter, Bruno Walter (available currently on Turnabout). The new Deutsche Grammophon recording by Herbert von Karajan is firmly in that tradition, and the conductor brings to the heart-wrenching finale a white-hot intensity that I have not heard matched elsewhere on or off records. Klaus Tennstedt's finale (Angel) is probably the most spiritualized, and Carlo Maria Giulini's (DG) the richest in sheer sound, but Karajan probes even more deeply in his special way. His interpretation of the middle movements is on the same remarkable level. The Ländler offers not only flawless pacing but a gauging of coloration and internal balances that is of a wholly exceptional caliber. As for the Rondo Burleske, it would be all but impossible to find a match for this one's savagery and biting sarcasm, or its sense of fancy gone wild one's savagery and biting sarcasm, or its sense of fancy gone wild in the later pages. Of course, it is not only Karajan's conductorial prowess and insight that make these achievements possible, but also the nearly superhuman virtuosity of the Berlin Philharmonic players, both individually and in ensemble. Purely in terms of wonderful playing, this is one of the greatest of that orchestra's many great discs, with and without Karajan. Only the marvelous first movement of the symphony disappoints here, failing to build a full measure of emotional and sonic impact for the great "death knell" climax, and for that I am inclined to blame the recording, which on this twenty-nine-minute side sounds a mite thin compared with the other three. The general effect is of a "coolness" in the reading that does not hold true elsewhere. But if you want to hear stunning orchestral executions of the middle movements and yet another great reading of the last, don't pass up this album.

—David Hall


BRITTEN: Les Illuminations. SUDERBURG: Concerto (Voyage de Nuit, d'Après Baudelaire). Elizabeth Suderburg (soprano); Piedmont Chamber Orchestra, Nicholas Harsanyi cond. TURNABOUT TV 34776 $5.98.

Performance: Compelling

Recording: Boxy

Robert Suderburg has been the dean of the North Carolina School of the Arts—with which the very capable Piedmont Chamber Orchestra is affiliated—since 1974; Elizabeth Suderburg, his wife, is one of the leading singers of new (and sometimes old) music in this country. This very attractive album from Turnabout matches Benjamin Britten's settings of Rimbaud's Les Illuminations—a relatively early and dashingly (Continued on page 124)
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brilliant work—with Robert Suderburg's composition on Baudelaire, written for this singer and this orchestra. The surprise is the unabashedly romantic character of the latter, a "concerto" for voice, solo instruments, and chamber orchestra. Suderburg's work is generally associated with the serious twelve-tone idiom, but here he is writing skillful, expressive tonal music rather than abstract-expressionist atonal music. It's very effective too, especially in this lovely performance. The Britten piece, one of that composer's masterpieces, is also very well sung and played. The recording is somewhat boxy and doesn't have a lot of presence, but the music and the performances have plenty to spare. E.S.

**RECORDING OF SPECIAL MERIT**

**DEBUSSY: Préludes, Book II.** Claudio Arrau (piano). PHILIPS 9500 747 $9.98, © 7300 832 $59.98.

Performance: Magical

Recording: Excellent

Last year Philips gave us Claudio Arrau's recording of Book I of the Préludes (9500 676), his first recording of Debussy in more than thirty years and his first phonographic encounter ever with the Prélude. Fortunately, we have not had to wait another thirty years for him to get to Book II, and now that it is here I can only repeat the enthusiastic welcome I gave his Book I (December 1980 issue). Arrau's magnificent way with this music must upset a lot of notions of how it should sound. I suggested last year that the pianist's long identification with the music of Liszt may have had something to do with his approach toward Debussy, for "there is nothing reticent in his large-scale, clear-textured approach, none of the veiled or blurred quality so often cultivated in the name of 'Impressionism,' nor is there a trace of the mincing crispness favored by those determined to relate Debussy directly to Rameau. In terms of full-bodied color as well as breadth and clarity, these performances are magical."

I feel a little self-conscious quoting myself, but Arrau makes the same commanding impression in Book II that he did in Book I, and I am more than doubly grateful to have the series entire. His big and bold approach, as noted before, does not rule out subtlety, tenderness, or wit, and one of the wonders of these performances (as, indeed, of these compositions) is the way a microcosm is revealed in such a piece as Feux d'Artifice, which is of course no mere virtuoso vehicle but a phantasmagoric evocation in which the idea of fireworks is almost incidental. As in the previous set, the heady exoticism of La Puerta del Vino, the humor of "General Lavine" and Hommage à S. Pickwick, and, in fact, the character of each of the twelve pieces are all the more telling for Arrau's insistence on clarity.

Also as before, this is a beautifully life-like recording, so much so that there is again audible an occasional gasping or sniffing sound that is hard to pin down as either human or mechanical. On a less meticulous pressing it might have been masked by surface noise; it does not occur frequently enough to be a serious irritant, and it in no way minimizes the appeal of this marvelous record.

R.F.

**FOSS: Thirteen Ways of Looking at a Blackbird** (see MOLLICONE)

**FRANCK: Organ Music** (see Best of the Month, page 72)

**GRIEG: Symphony in C Minor.** Bergen Symphony Orchestra, Karsten Andersen cond. LONDON 0 LDR 71037 $10.98.

Performance: Nicely turned

Recording: A-1

We have a double surprise here: this first U.S. release by the Bergen Symphony Orchestra offers a hitherto unknown symphony by that city's most illustrious son, Edward Grieg, written when he was twenty-one and barely two years out of the Leipzig Conservatory. Grieg had shown some small piano pieces and songs to Denmark's Niels Gade, who proceeded to goad the young man into trying his hand at a symphony. The last three movements were performed at the Tivoli Gardens in Copenhagen under the baton of Hans Christian Lumbye, and Grieg himself conducted the work twice in Bergen—after which he deposited the score in the Bergen Public Library with the instructions, "Never to be performed." He did, however, later arrange the middle movements for piano four-hands (published as Op. 14). The 1981 Bergen International Music Festival was the occasion of the sec-

(Continued on page 126)
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To be honest, there are no startling revelations here. Like many "youth" symphonies, the end movements of this one are almost too full of ideas and a bit short on developmental know-how. Grieg's judgment was right in allowing the slow movement and scherzo, the latter having something of a Swedish polska feel to it, to survive as keyboard pieces. The work as a whole is highly redolent of Schumann (and not of Grieg as we know him), and the finale is rather lengthy for its substance. Karsten Andersen and his players turn out a neat and rhythmically precise performance, and London's digitally mastered recording is absolutely first-rate, but this remains a disc for Grieg buffs and specialists in the Romantic symphony only.

D. H.

RECORDING OF SPECIAL MERIT

LISZT: Piano Concerto No. 1, in E-flat Major; Piano Concerto No. 2, in A Major. Jorge Bolet (piano); Rochester Philharmonic Orchestra, David Zinman cond. Vox CUM LAUDE VCL 9001 $8.98, VCS 9001 $8.98.

Performance: Powerful and poetic
Recording: Bright

Jorge Bolet recorded Liszt's First Concerto about twenty years ago with Robert Irving and the Symphony of the Air for Everest, but that disc has not been available for some time, and he has apparently not recorded the A Major before. It is good to have these omissions corrected at last, for there is no finer performer of Liszt's piano music. Like all of Bolet's Liszt performances, these are exemplary in terms of both power and poetry. The former quality is all the more impressive for his giving the sense of so much more being held in judicious reserve; the latter is similarly refreshing for his avoidance of heaving and churning in favor of delicate but pointed reminders that even in these often derided concertos subtlety can make the difference between a "vehicle" and music of substance. David Zinman's contributions are sensitive and sympathetic, and his orchestra's winds in particular make a fine showing. The sound is bright and attractive.

R.F.

RECORDING OF SPECIAL MERIT

MAHLER: Symphony No. 2, in C Minor ("Resurrection"). Isobel Buchanan (soprano); Mira Zakai (contralto); Chicago Symphony Chorus and Orchestra, Sir Georg Solti cond. LONDON 0 LDR 72006 two discs $21.96.

Performance: Intensely dramatic
Recording: Revelatory!

This is the first digitally mastered Mahler Resurrection Symphony, and the combination of Sir Georg Solti and his Chicago forces is a formidable one indeed, backed by a London production crew in top form. Solti is considerably freer in the opening movement here than he was in his 1966 recording with the London Symphony Orchestra. I sense not only a careful restudy of the score, with meticulous attention to Mahler's portamento markings for the violins, but also perhaps an acquaintance with Leonard...
Bernstein’s wildly visionary 1974 reading at Ely Cathedral (Columbia MZ 32681), the film of which was broadcast earlier this year on public television.

The second movement has just the right Ländler lilt and a most effective handling of the contrasting middle section. The pizzicato reprise is utterly breathtaking in digital sonics. In the scherzo the recording is revelatory in fine details of balance and sonority; for once the rustling sound of the Ruhe (birch broom) on bass drum is not lost in background noise. The Urecht movement is rather lushly sung by Mira Kakai, who is no match for Janet Baker (in Bernstein’s Ely recording) in conveying the rapt ecstasy this music demands. The apocalyptic finale is all one could ask for in terms of drama, though it’s a bit hectic in that minor Ländler lilt and a most effective handling of the contrasting middle section. The lovely vocalism of soprano Isobel Buchanan deserves mention.

In short, this is yet another distinguished recorded performance of the Resurrection Symphony. What sets it apart from a half-dozen others—among them those by Bruno Walter; Claudio Abbado, and Zubin Mehta, as well as both of Bernstein’s (the daredevil Ely Cathedral reading was preceded by a fine studio recording with the New York Philharmonic)—is that here the performance is supported by just about the most impressive sound this symphonic colossus has yet been accorded. D.H.

MOLLICONE: The Face on the Barroom Floor. Leanne McGiffin (soprano), Isabel/Isobel Madeline; Barry McCauley (tenor), Larry/Matt; David Holloway (baritone), Tom/John Alice Lenicheck (flute); George Banks (cello); Henry Mollicone (piano).

Performance: Very good
Recording: Excellent

Henry Mollicone, who used to be an assistant conductor at the New York City Opera, wrote the original version of his one-act opera The Face on the Barroom Floor for the 1978 hundredth anniversary celebration of the opera house in Central City, Colorado. The Teller House saloon there is where the famous face was really painted on the floor by a drunken artist where the famous face was really painted on the floor by a drunken artist. It tells the story of Matt, “who comes to the West to find fame and gold” and wants to share it with the beautiful Madeline. He paints her face on the barroom floor and fights over her with her lover, John, who runs the place. When she hurts herself between them after John pulls a gun, she is shot dead; Matt and John survive.

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As I have said, to these many years, the real split in contemporary music, of whatever genre, is between the minimalists and the maximalists. And having said so, I feel compelled to add that I hate people who talk and write like that. But the division is real nonetheless.

The composers and critics who support minimalism are legion, and the phenomenon is well understood. Awash as we all are in the informational overload of the past few decades, it is perhaps not surprising that so many have fled into simpler creative worlds where the eternal verities — some eternal verities, any eternal verities — still reign. More complex and ultimately more interesting are those artists of maximalism who try to confront, use, or sort out the manifold inputs that bombard us. I'll admit right off that this approach catches my sympathy more than its opposite, in part because I have tried to do the same thing myself in various ways since the early Sixties (sometimes in concert pieces, but mostly in a series of music-theater pieces written with Michael Sahl).

Composer-pianist Frederic Rzewski has impeccable avant-garde credentials; he is also a musician interested in social issues. In his recent work he has tried to integrate the European classical tradition, the American popular/folk tradition, and the avant-garde. In his case, the re-creation of traditional elements is not, I think, in any way a return or a looking backward (as it may be with certain other contemporary composers) but a genuine attempt to achieve a higher synthesis. Rzewski's best-known work in this vein is the big piano piece The People United Will Never Be Defeated on Vanguard 71248, and now the same label has brought us a record full of smaller pieces for the instrument, played by the composer, that are even more ingratiating, tighter, perhaps in a way more "complete" in themselves.

The 1977 Four Pieces (really a piano sonata without benefit of clergy) are colorful, insistent, multifaceted works. This is playing music — a kind of contemporary Geräuschmusik but without Hindemith's neo-Baroque pedantry. Unlike a lot of the best new music, these pieces belong to the central concert tradition, but in its widest, least snobbish form. As such, they ought to be played in concert halls, and played quite a lot.

The Ballad No. 3, called Which Side Are You On?, is a bit more like the earlier The People United. This is the third of four ballads based on North American folk and protest songs that Rzewski wrote for pianist Paul Jacobs (who recorded them for Noneuch). The basis for this one is a protest song on a traditional tune written by Florence Reese in 1931 about the coal-miners' strike in Harlan County, Kentucky. The traditional tune turns up in its original form only after its elaborate balladic interpretation. Rzewski's version here differs considerably from Jacobs', not least in its inclusion of an extensive improvisational section that is as long as the written-out part of the work. Rzewski has been doing quite a bit of exploring in the area of improvisation, and some of the best fruits of his exploration are to be found in both the improvised and the written-out portions of this music.

Rzewski's virtuosic performances — reminiscent of the composer-pianists of the past — are excellent, and the digital recording is good. A most worthwhile release.

—Eric Salzman

bretto by John S. Bowman, frames the saga of Madeline, Matt, and John inside a parallel drama involving a contemporary bartender, a visiting tourist, and his opera-singer girl friend who are fated to re-enact the earlier tragedy. The score is an attractive if somewhat simple-minded one in the Menotti tradition, suffused with a wonderful sense of period atmosphere. The opera actually premiered at the Teller House saloon instead of the opera house, and it has toured successfully since then. On the recording, Leanne McGiffin (who created the role of Isabelle/Madeline), Barry McCauley, and David Holloway perform impeccably under the composer's direction, and the work makes for fascinating listening.

Lukas Foss' setting of Wallace Stevens' poem Thirteen Ways of Looking at a Blackbird, with its startling still-life imagery that has stimulated a number of composers, was commissioned in 1978 by Chicago's fine-arts radio station WFMT. For it Foss combined his early tonal style with his later experimental approach to create a score that is both intricate and spectacular. It is intensely interpreted here by mezzo-soprano RoseMarie Freni with the vocal line closely woven into the instrumental texture. I still prefer composer Alan Blank's bleaker treatment of the same text as a series of variations; Foss puts the poet at his service while Blank puts his music at the service of the poem. Yet the Foss work is a distinguished one in its flamboyant way, and it is excitingly performed here. P.K.

MOZART: Flute Concerto No. 1, in G Major (K. 313); Flute Concerto No. 2, in D Major (K. 314); Andante in C Major (K. 315); Rondo in D Major (K. Anh. 184); Concerto in C Major for Flute, Harp, and Orchestra (K. 299). Frans Vester (flute); Edward Wittenburg (harp, in K. 299); Mozart-Ensemble Amsterdam, Frans Brüggen cond. PROARTE 2PAL-2004 two discs $19.98, © 2PAC-2004 $19.98.

Performance: Dreary
Recording: All right

MOZART: Concerto in C Major for Flute, Harp, and Orchestra (K. 299); Oboe Concerto in C Major (K. 314); Rondo in D Major for Flute and Orchestra (K. Anh. 184). Jean-Pierre Rampal (flute); Marielle Nordmann (harp); Pierre Pierlot (oboe); English Chamber Orchestra, Jean-Pierre Rampal cond. CBS M 35875, © MT 35875, no list price.

Performance: Inspiring
Recording: Bright

This Dutch Mozart set, recorded ten years ago, has been around at least once before, and not too long ago, as ABC/Seon 67040. The new Pro Arte pressings are cleaner but still offer the same dreary performances, not at all what one would expect from the usually enlivening Frans Brüggen and his associates. The "original instruments" offer little enticement here. The acoustic ambiance, too, is rather dead, the labeling is inadequate, and the half-hour K. 299 is gratuitously spread over a side and a half.

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the Oboe Concerto being identical with the Flute Concerto No. 2, but each time around they come up sounding just as fresh as before. Rampal is an unfailingly inspiring musician, and the joy he communicates is in almost cruel contrast with the lifelessness of the Dutch performances—especially in the D Major Rondo (Franz Anton Hoffmeister's transcription of Mozart's Rondo in C Major for violin and orchestra, K. 373), which even Rampal has not brought off with such winning elan before. In conducting for his longtime associate Pierre Pierlot and in his dual partnership with the presumably young and demonstrably gifted Marielle Nordmann, Rampal's delighted response to the stimulus of good company as well as good music is unmistakable and irresistible. There are other attractive recordings of both concertos, by Rampal and others, but if this combination of titles appeals to you, you can't go wrong with this package. Bright, airy sound too, from an Erato master. Bright, airy sound too, from an Erato master.

MUSSORGSKY: Night on Bald Mountain; Khovanschina, Prelude and Entr'acte; Scherzo in B-flat Major; Triumphant March; Joshua; Three Choruses (see Best of the Month, page 75)

RECORDING OF SPECIAL MERIT

PROKOFIEV: Alexander Nevsky. Larissa Avdeyeva (mezzo-soprano); Republican Russian Chorus; USSR Academy Symphony Orchestra, Yevgeni Svetlanov cond. War and Peace (Highlights). Galina Vishnevskaya (soprano), Natasha; Valentina Klepatskaya (mezzo-soprano), Sonya; Yevgeny Kibkalo (baritone), Bolokonsky; Aleksandr Krivchenya (bass), Kutuzov; Boris Shapenko (tenor), Denisov; Leonid Ktitorov (bass), Tikhon; others. Chorus and Orchestra of the Bolshoi Theater, Alexander Melnik-Parshayev cond. MUSICAL HERITAGE SOCIETY. MHS 824351 two discs $15.50 (plus $1.60 postage and handling charge from the Musical Heritage Society, 14 Park Road, Tinton Falls, N.J. 07724).

Performance Vital and Idiomatic

Recording Very good

These two major works of Sergei Prokofiev have a great deal in common. Aside from their historical material, which provides a natural link, political events played a crucial part in their musical creation. The triumphant film score to Alexander Nevsky (1938), which is the source of this cantata, was written under the threatening shadow of World War II: the implications of this reminder of past Russian glory in repelling the German invasion of Russia made the Napoleonic horrors related in Tolstoy's epic novel terrifyingly contemporary. The opera's martial episodes echo similar portions in Nevsky, and it is not difficult to find counterparts to the cantata's occasional lyric portions in the vast panorama of the opera.

Both of these recordings were previously available as Melodiya/Angel 40011 and 40053, originally released around 1968. Several versions of Alexander Nevsky have been recorded since then, and they may surpass this one in sonic terms, but I find this Russian performance excellent. The colors and clangors of Prokofiev's music are captured with vivid sharpness, with nicely detailed choral and orchestral sonorities. Moreover, Yevgeny Svetlanov's identification with the music appears to be total. His sensible tempos, generally on the lively side, move it briskly forward and keep the sentimental episodes from turning lugubrious. Mezzo Larissa Avdeyeva intones her Lament movingly, with deep-felt but not excessive emotion.

War and Peace is a more complicated matter. The opera itself is an uneven work, more convincing in the intimate confrontations than in the massed and exhortatory scenes Prokofiev was urged to expand for patriotic purposes. To take a realistic view, just as the opera cannot be a true representation of Tolstoy's vast epic, so highlights cannot do justice to the opera. (The complete War and Peace is available on a four-disc CBS set, M4 33111.) However, these highlights offer a great deal of worthy music, very well performed.

Galina Vishnevskaya's impressive theatrical gifts are matched by pleasing vocal strengths to create a sympathetic Natasha. Yevgeny Kibkalo, a fine lyric baritone, is very touching in the strange but effective music Prokofiev contrived for Bolokonsky's...
death scene. The music of the heroic Field Marshal Kutuzov is more functional than memorable; Aleksei Krivchenya delivers it in a lusty, powerful, and unsubtle fashion. The crucial roles of Hélène and Pierre Bezukhov have been squeezed out of these “highlights,” but in the brief episode of the burning of Moscow (side four, band two) you can briefly hear two exceptional singers: baritone Pavel Lisitsian (Napoleon) and bass Artur Eizen (Rambal). The musical leadership and the choral work are both exemplary. In all, then, these are very praiseworthy recordings, and the set is enhanced by Peter J. Rabinowitz’s informative annotations.

G.J.

RECORDING OF SPECIAL MERIT


Performance: Lively
Recording: Excellent

Prokofiev was, in the great tradition of Rimsky and early Stravinsky, a composer who could evoke magic and fantasy. Almost alone among modern operas, his The Love of Three Oranges has fantasy without breast-beating or pies in the face. Kijé, although the subject is satirical rather than fantastical, has some of the same qualities, and so, in fact, does the Classical Symphony. Russian composers are supposed to be tormented souls, but there seems to have been hardly a shred of self-pity in Prokofiev or his music, and, unlike the urban, acerbic aesthetic Stravinsky, he wore his neo-Classicism with charm and good spirit.

These new recorded performances help a lot. The Classical Symphony here is quite different from what we are used to hearing; instead of the hard edge, brilliant sound, and bite that nearly everyone prefers nowadays, it is an almost pastoral reading—charming, elegant, laid-back, full of happy detail. The two suites are also simple, a bit livelier, and completely ingratiating. The recording sounds good too. Enjoy.

E.S.

PUNTO:

Horn Concertos: No. 5, in F Major; No. 6, in E-flat Major; No. 10, in F Major; No. 11, in E Major. Barry Tuckwell (French horn); Academy of St. Martin-in-the-Fields, Neville Marriner cond. ANGEL SZ-37781 $9.98.

Performance: Pleasing
Recording: Excellent

The young Beethoven wrote his Horn Sonata, Op. 17, for the great virtuoso Giovanni Punto. This prompted a Budapest critic to write, “Who is this Beethoven [sic]? His name is not known in musical circles. Of course Punto is very well known.”

Punto was a Bohemian (that is, a Czech) whose real name was Jan Václav Stich. Like many of the great virtuosos of another day, he wrote fancy concertos to show off his own abilities—supposedly more than a dozen concertos all told, although some of the scores are now lost, defective, or misattributed. They are difficult; they belong to the developed high Classical style, and, ali-
As one of the happy few who really like to listen to English art songs, I have long since resigned myself to the fact that most people don’t. What I have never really resigned myself to is that recorded versions of the songs come only in dubs and drabs over the years, rarely by major artists, all too frequently by inferior ones or by those who have seen, or have yet to see, a better day.

Why don’t they get somebody good, I’ve often thought, and make a nice two-record set of a whole pack of songs. Well, “they” did (nice to give some credit to “they” once in a while rather than just blame them for everything that goes wrong).

Peters International has released an Oxford University Press recording of Ian Partridge singing thirty-nine “English” songs, dating from 1889 to 1929, by four composers. The quotation marks around “English” are there because of five of the Delius songs which, while invariably sung in English, were originally composed to texts in Norwegian. Partridge is one of the best English tenors around today; his voice, while not of the sort raved about in operatic circles, is capable of producing beautiful and affecting tones, his phrasing is musicianly, his diction excellent and not overdone. His major drawback is that he is not a particularly imaginative or daring singer, and his accompanist here, Jennifer Partridge, is also rather soberly musical. But it is a very well performed album.

I doubt, though, that it will do much toward making English art song more than a minority taste. You simply can’t play these four sides through at a single sitting; there’s too much sameness of sound. To an extent the music is responsible, but it would have been a far more listenable program if shared with a woman’s voice, perhaps with a couple of duets.

As a compendium from which to select, however, the set makes perfect sense. Warlock’s modern reincarnation of the Elizabethan song is represented by some of his best pieces (they are mostly the ones that have been recorded before). Sleep, with its wonderful modulation to nowhere at the end, is a splendid example and quite a little masterpiece. Most of the Delius songs are less familiar, and they show the composer, interestingly, struggling against the limitations of the medium, yearning for orchestral sonorities, and generally trying to write ‘big.’ The songs are successful in varying degrees, but the best of them, Twilight Fancies, is certainly a great one. The Vaughan Williams songs show the greatest stylistic range, despite the fact that all but one were composed within a three-year span. The New Ghost and The Water Mill are both masterly, but as different from one another as day and night.

Ivor Gurney is the least familiar name here, and his songs are even more rarely heard in the U.S. than the others. He was a highly sensitive man, no doubt, and there are some very beautiful and effective passages in his songs, but his pacing is generally so slow that the songs lose overall impact. His Down by the Salley Gardens, though, with a tune utterly unlike the famous one, is a gem.

There is little point in comparing, for example, Partridge’s performance of Yarmouth Fair with Alexander Young’s or his The New Ghost with Jennifer Vyvyan’s, for both of those earlier versions, and others too, are long since gone from the catalog. Devotees of English song will want this album in addition to whatever older ones they possess, and those coming new to the field had best avail themselves of the current opportunity before this set too passes into the limbo of unavailability. The recording is excellent, and complete texts are provided.

—James Goodfriend
though no one would claim they are immortal works of genius, they still have the power to please. Especially in the hands—and lips—of Barry Tuckwell, a worthy successor to the great Punto/Stich. And it certainly does no harm that this is another chapter in Tuckwell's collaboration with Neville Marriner and the Academy of St. Martin-in-the-Fields. Angel's attractive sound completes the charming picture.

E.S.

SALZMAN/SAHL: Civilization and Its Discontents. Kari Patrick Krause (tenor), Carlos Arachnid; Candice Early (soprano), Jill Goodheart; William Parry (baritone), Derek Dude; Paul Binotto (tenor), Jeremy Jive; Michael Sahl (piano, organ); Cleve Pozar (drums, percussion). NONESUCH N-78009 $8.98, © N1-78009 $8.98.

Performance Excellent
Recording Very good

My good colleague Eric Salzman, who started his composing career with a string quartet and a flute sonata, has so wholeheartedly embraced avant-garde techniques and so dealt with the challenges of mixed media (his studies with Otto Luening, Vladimir Ussachevsky, Milton Babbitt, and Roger Sessions were bound to rub off eventually) that each new piece from him has inevitably embraced avant-garde techniques. The performance heard on this record is presented in that year at the American Musicological Society, although no one would claim they are immoral. The action takes us first to the Club Bide-a-Wee, I forget exactly why or when. At the Bide-a-Wee, I forget exactly why or when.

Singing Chicken," clucking that she has been "born again," with everything culminating in the liberating message, "If it feels good, do it."

Despite Salzman and Sahl's comments in their liner notes about traditional European "operatic opera" as a fossilized, elitist form, I find it difficult to write about the music here, unconventional as their approach may seem.

Recording

I think an opera is what they have written...
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in the course of portraying them and their curious evening together the performers get to do some excellent acting as well as singing. Soprano Candice Early is in every way equal to the part of Jill, a role that in less canny hands might have bogged down in bathos—especially when she announces "My life is over" and tries to end it with a knife. The shenanigans of Jill and her pals unfold against a luminous, always idiomatic instrumental background that is never less than appropriate and that sometimes, as in a kind of jazz fugue toward the end, achieves real distinction. Following the action would be a bit easier if Nonesuch had provided a libretto, but the singers' enunciation is very clear and I think you'll enjoy the record anyway.

P.K.

RECORDING OF SPECIAL MERIT

SCHUMANN: Frauenliebe und Leben, Op. 42; Lied der Suleika; Weit! Weit!; Liebesleid; Schmetterling; Hinaus ins Freie; Der Sandmann; Kinderwacht; Die Blume der Ergebung; Singet Nicht in Trauertönen; Mond, Deiner Seele Liebling; Reich Mir die Hand; Die Letzten Blumen; Frühlingslust. Edith Mathis (soprano); Christoph Eschenbach (piano). DEUTSCHE GRAMMOPHON 2531 323 $9.98, © 3301 323 $9.98. Performance Outstanding partnership Recording: Excellent

Record companies have been rather overgenerous with their releases of Schumann's Frauenliebe und Leben lately, but a performance on the level of excellence of the one here leaves no room for complaint. Edith Mathis sings with involvement but without undue exaggeration and communicates the highly sentimental Chamisso lyrics with clarity, sensitivity, and—apart from a few spots where the tessitura is a bit low—a lovely rounded tone.

To balance this much-recorded cycle, Miss Mathis offers on the reverse side thirteen Schumann songs that are quite unfamiliar. Ranging in date from 1840, the famous "song year," to 1851, the sequence is of variable significance. Four of the best songs of Op. 79 (Album für die Jugend) are here, all poetic trifles but enriched by delightful musical ideas (the excellent Christoph Eschenbach is particularly sparkling in these songs). The later songs (1850-1851) show a decline of musical inspiration, but singer and accompanist make a strong case for every single item in this imaginative release.

G.J.

SIBELIUS: Symphony No. 4, in A Minor, Op. 63; Luonnotar, Op. 70; Finlandia, Op. 26, No. 7 (see Best of the Month, page 72)

R. STRAUSS: Songs. Heimliche Aufforderung; Befreit; Freundliche Vision; Drei Lieder der Ophelia aus "Hamlet"; Schlechtes Wetter; Breit' über Mein Haupt; Ich Schwebe; Nichts; Wiegenlied; Die Zeitlose; Wozu noch Mildchen; Am Ufer; Wie Sollten Wir Geheim. Helen-Kay Eberley (soprano); Donald Isaak (piano). EB SKO ES-1005 $8.98. Performance: Very good Recording: Very good

There are several unfamiliar Strauss songs here, including the three songs of Ophelia
set to a German translation of Shakespeare's text in 1919. They are brief and not particularly interesting, but Helen-Kay Eberly lavishes on them the same careful and tasteful refinement with which she endows the book with its charming "Aufforderung zu Ständchen, Freundschaftliche Vision, Befreiung, and the rest. She is a well-trained singer with a voice of natural loveliness and an extension that enables her to handle high tessituras without effort and without compromising the limpid quality of her singing. I would have to say that a more varied program from such a fine interpreter. But she does offer a feast for the Strauss aficionado with her loving treatment of sixteen songs, never falling into the temptation of excessive sentimentality posed by some of Strauss' favored lyricists. The accompaniments are excellent.

J. G.

Suderburg: Concerto—Voyage de Nuit, d'Aprés Baudelaire (see Britten)

Records of Special Merit

Tchaikovsky: Romeo and Juliet
Bernstein: West Side Story: Symphonic Dances
Atlanta Symphony Orchestra, Robert Shaw cond. Vox Cum Laude VCL 9002 $8.98 © 7300 830 $10.98.

Performance: Galvanic
Recording: Excellent

Tchaikovsky: Romeo and Juliet
Francesca da Rimini
Concertgebouw Orchestra, Robert Shaw cond. Vox Cum Laude VCL 9500 $10.98, © 7300 830 $10.98.

Performance: Splendid
Recording: Excellent

As if he weren't unhappy enough already, Tchaikovsky was also unfortunate in his critics. When Mahler conducted the Romeo and Juliet Fantasy-Overture in Hamburg in 1893, one critic declared it "devoid of melodic invention." Today the work is played so often, and has been recorded so many times, that it takes an exceptional recording to bring it back to life for new audiences.

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TELEMANN: Concerto in E Minor for Recorder, Flute, and Strings; Concerto in A Major for Oboe d'Amore and Strings; Concerto in E-flat Major for Oboe and Strings; Concerto in B-flat Major for Two Flutes, Two Oboes, and Strings. Michael Copley (recorder); Aurèle and Christiane Nicolet (flutes); Heinz Holliger (oboe d'amore, oboe); Louise Pellerin (oboe); Camerata Bern, Thomas Fürl cond. ARCHIV 2533 454 $9.98, © 3310 454 $9.98.

Performance: Suave
Recording: Beautiful

When it comes to wind concertos, especially for multiple instruments, Georg Philipp Telemann must be awarded top rank. The subtle interplay of flute and recorder in the E Minor Concerto and the intriguing contrast between a pair of pithy oboes and a pair of silken flutes in the B-flat Major Concerto demonstrate his understanding of the instruments and his mastery of sonority. Although the timbres of early instruments would provide more striking contrasts than does the more homogenized blend of modern instruments used for this recording, Telemann's sound images are well served by an admirable delicacy of balance between the soloists and strings of the Camerata Bern. Like all the other musicians involved here, Heinz Holliger uses the seamless legato of the twentieth-century performer rather than the articulation so favored during Telemann's time. His ability to make an oboe d'amore sound musically like a modern oboe is amazing, if not authentic, but in the long run it is of course his superb musicianship that counts most, not his stylistic preferences.

Except for the somewhat routine E-flat Major Oboe Concerto, the concertos in this album are all strong pieces. Indeed, they provide new ammunition for those who believe in Telemann's genius to shoot down his numerous detractors.

S.L.

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Performance: Charming
Recording: Excellent

The instrumentation of his own work by Antonio Vivaldi has always been good enough for me, although it is true that he (Continued on page 139)
EQUIPMENT

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American inventors were rather flexible on this point and was known to switch arrangements from one instrument to another on short notice. What gives? A Fredric Forrest in greets (some seven seconds as the street musician in the movie Kramer vs. Kramer) has done here is to arrange a lot of Vivaldi, plus part of a suite for Purcell, for himself and other "street musicians." Guitar, banjo, harp, harmonica, recorder, and flute are freely—and imaginatively and effectively—substituted for what is listed in the original scores. The music itself is all so charming that I imagine it could bemuse the ear if played on a kazoo. Especially attractive is Il Pastor Fido, for which Hand adds tempi blocks for percussive effects. The record ends with a coda of traffic noises, scattered applause, and a "thank you" with which this listener concurred.

P.K.


Performance: Illuminating

Recording: Good to very good

These excerpts, all taken from complete opera sets, yield an interesting view of Renata Scotto's artistry over a period of several years, from Turandot (1965) to La Boheme (1980). Vocally, she is in top form in Liu's two arias and in the three Butterfly scenes. In the latter, her character projection too is immensely affecting, and it is all achieved through voice alone. Even though stemming from a later production, the Pagliacci aria discloses similar winning values. In the excerpts from La Boheme, however, Scotto's vocal resources are no longer what they were. There is considerable stridency in high passages and occasional signs of vocal and, being a resourceful and intense artist, brings it off creditably nonetheless. Even when she is vocally less than pleasing, Miss Scotto is an imaginative, illuminating singer whose work commands attention. In the Butterfly Love Duel, she is partnered by the impeccable Carlo Bergonzi, in La Boheme by the "tasteful but tonally undernourished Alfredo Kraus. As for the conductors, between the precise but hetic Muti (Nabucco) and the indulgent Levine (La Boheme), the routine competence of Molinari-Pradelli (Turandot) is soothing and the richly nuanced, marvelously expressive and compassionate leadership of Sir John Barbirolli (Maddalena) is a cause for joy. The Boheme scenes are oddly balanced sonically; otherwise the sound is consistently impressive. Texts and translations are supplied. G.J.
Two John Adamses

Recently two different small labels issued recordings of music by two entirely different contemporary composers named John Adams. You can tell they're different because the Opus One album of John Adams' Songbirdsongs has a picture of a man with a beard playing a recorder in the midst of a wilderness while the 1750 Arch record of John Adams' Shaker Loops for strings and Phrygian Gates for piano shows a clean-shaven fellow with glasses in a corduroy jacket, sweater, and soft straw hat standing in front of the lights of San Francisco.

You can tell from the music too. The John Adams of the bird songs was born in Mississippi in 1953, was raised in the Southeast (whence most of his bird-song inspiration clearly comes), was educated at the California Institute of the Arts (whence his lasonic, Western musical frame of reference no doubt comes), homesteaded or ranch-handed or something in Idaho, and now resides in Alaska, where he is an environmentalist and wilderness guide. The other John Adams is six years older, hails from New England (Vermont and New Hampshire), was educated at Harvard, and now spends his time in San Francisco composing and directing the New Music Ensemble of the San Francisco Conservatory of Music.

Olivier Messiaen has held the patent on bird song in music in modern times, but you may be surprised to discover, as I was, that his "exotic birds" are actually the robin, the cardinal, the wood thrush, and the like. You can tell from the music too. The Songbirdsongs takes a simple approach. Most of the songs are transcribed for piccolos with various percussion accompaniments. Like many other bird-song transcriptions, these focus on the elusive melodies and miss some of the variations of color, phrase, articulation, and form that so strongly characterize the different songs of different species and make them distinguishable in the wild. Nevertheless, the pieces have charm and a real feeling for the nature of nature's music. Nice touches are provided by the percussion, which in a way sets and frames the scene, providing a kind of aural landscape through which the songs float. The disc is well recorded too (though there's one horrendous splice).

The music of the San Francisco John Adams is in many ways very different, but it shares a kind of unaffected simplicity that is appealing. The starting point here is the minimalism of Steve Reich and Philip Glass, but, as with many such pieces in recent years, the rate of change is quicker, the music more through-composed, more directional than that of those models. These are slow, relaxed, expansive, elegant, extremely pleasant journeys that actually move on and even eventually get somewhere. Good performances and recordings too.

—Eric Salzman

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