NEW AUDIO PRODUCTS
A report from the Las Vegas Consumer Electronics Show

Julian Hirsch on
AUDIO TESTING AS A CAREER

EQUIPMENT TEST REPORTS
- Denon DP-33F Record Player
- Nakamichi 1000ZXL Cassette Deck
- Sennheiser HD 222 Headphones
- SIARE Delta 400 Speaker System
- Toshiba SA-2500 Stereo Receiver

INTERVIEW
Roseanne Cash's "Seven Year Ache"

DISC SPECIALS
Fleetwood Mac • The Clash • T. S. Monk
Christopher Cross • Toots and the Maytals
VERDI: Karajan's New Falstaff
BARBER: Third Essay for Orchestra
SCARLATTI: St. Cecilia Mass
In hi-fi, up until now, sound was the whole picture.

Since the very beginning, hi-fi has appealed to one sense: your hearing. The rest was up to your imagination.

Now Pioneer brings you closer to the reality of performance than you’ve ever experienced at home: LaserDisc.

Now you can hear and see a concert or a movie as easily as you can play a record. With sound that’s pure hi-fi.

The Pioneer LaserDisc player is easy to hook up and easy to operate. One wire to your TV; two to your hi-fi. Then just place a disc on the player, and poof...magic.

THE SOUND: A NEW GENERATION IN STEREO.
With Pioneer LaserDisc, both channels are completely discrete from each other. It’s stereo in its truest sense. And since the disc is read by a light beam rather than a video head or needle, with normal use, it doesn’t wear out from play. In addition, unlike conventional records, you can handle the LaserDisc as much as you wish. Even minor surface scratches won’t effect the superb audio and video fidelity. You can enjoy the disc forever.

THE PICTURE: BETTER THAN HOME VIDEO TAPE.
The Pioneer LaserDisc player offers a picture with actually 40% better resolution than the picture delivered by a home video tape player. A picture of the highest broadcast quality. For the first time on your television set, video fidelity is matched by audio fidelity.

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Try to imagine what it would be like to sit down in front of your television and see whatever program you wished whenever you wished to see it. With a sense of performance, a feeling of “being there” never before experienced at home: Movies, concerts, sports.

Pioneer Artists and MCA/Discovision discs like Paul Simon, Liza Minnelli, Loretta Lynn, Jaws, Animal House, The Blues Brothers, the NFL.

A DOOR TO EDUCATION.
With standard-play discs, you can create your own instant sports replays at home, you can go in fast motion, slow motion, one frame at a time, even stop motion indefinitely. But LaserDisc offers something far more revolutionary. Everyone of the up to 108,000 frames on the disc is coded. And a built in micro-computer lets you access any individual frame at will. This means you can go to your favorite scene in a movie or song in a concert in seconds.

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And since play can’t wear out the disc, they can be studied forever.

THE FUTURE IS IN REACH.
One of the most surprising parts of this new technology is that it’s affordable.
The Pioneer LaserDisc player has a suggested retail price of $749. *(Optional remote control just $50 more.) As surprising, a full length movie on LaserDisc can even cost less than taking your family out to the movies. And about half or a third of the price of that same movie on video tape.

YOU WON'T BELIEVE IT UNTIL YOU SEE IT.

Irrespective of how much we say here, the true magic of LaserDisc can only be appreciated in person. So we've arranged for a personal demonstration in your area. Just call us at 800-621-5199,** and we'll give you the names of the stores nearest you. Go by all means. You won't believe your eyes. Or your ears.

* Suggested retail price. Actual price set by dealer. **(In Illinois 800-972-5855)
CIRCLE NO. 51 ON READER SERVICE CARD

Simulated TV picture from The Blues Brothers.
Five Reasons Why You Should Buy The New Optimus® T-70 Speaker by Realistic®

1. High-Performance Soft-Dome Tweeter
   Designed to bring you silky smooth frequency response to 20,000 Hz, with wide dispersion and very low distortion. The T-70 reproduces the highest piano notes or the crash of cymbals with dramatic clarity — not just in front of the speaker, but throughout your room.

2. Special Enclosure for Extended Bass
   Radio Shack has matched a long-throw 8" woofer to an acoustically tuned labyrinth enclosure. Low-frequency sound energy is forced through the labyrinth and projected through a reserve rear slot. This increases efficiency and gives you tight, well-defined bass from an actually sized 29½x10½x10½" enclosure.

3. Hand-Finished Real Wood Cabinectry
   The luxurious veneer of each T-70 is precision-cut from a single panel of fine walnut, which assures eye-pleasing continuity of grain and color. After hand-sanding, a special hand-rubbed oil finish is applied, resulting in a system that looks as good as it sounds.

4. We Build It and Back It
   Since Radio Shack controls all phases of engineering, manufacturing and selling the T-70, we can trim costs and still back your purchase with a five-year parts and labor limited warranty. Audition the T-70 soon at Radio Shack. You'll be impressed with the sound...and the low price!

5. Only $129.95 Each
NEW PRODUCTS
Roundup of the latest audio equipment and accessories

AUDIO QUESTIONS AND ANSWERS
Digital Transducers, Dealer Preparation
LARRY KLEIN

TAPE TALK
High-frequency Testing, Why Demagnetize?, Sonic Welds, Equalization
CRAIG STARK

TECHNICAL TALK
Audio Testing as a Career
JULIAN D. HIRSCH

EQUIPMENT TEST REPORTS
Hirsch-Houck Laboratories test results on the Sennheiser HD 222 headphones,
SIARE Delta 400 speaker system, Toshiba SA-2500 stereo receiver,
Nakamichi 1000XL cassette deck, and Denon DP-33F record player
JULIAN D. HIRSCH

PREVIEW FOR BUYERS: NEW AUDIO PRODUCTS AT LAS VEGAS CES
Manufacturers are doing their best to stimulate a sluggish market

INTERVIEW: ROSEANNE CASH
Moving out of the long shadow cast by a famous father
NOEL COPPAGE

BEST RECORDINGS OF THE MONTH
Verdi: Falstaff
Dvořák: Piano Quartets
Barber: Third Essay for Orchestra
Corigliano: Clarinet Concerto

Mendelssohn: Symphonies Nos. 2 and 3
Scarlatti: St. Cecilia Mass

New Music: The New York School[s]

POULenc/HINDEMith: Clarinet Sonatas

THE CLASICAL MUSIC
Mendelssohn: Symphonies Nos. 2 and 3
Scarlatti: St. Cecilia Mass

POULenc/HINDEMith: Clarinet Sonatas

THE POPULAR MUSIC
The Clash: “Sandanista!”
The Two Tons: “Backatcha”
“Christopher Cross”

WESTI. “Lady Love”
Broadway Magic—in Five Volumes
T. S. Monk: “House of Music”

THE REGULARS
WILLIAM LIVINGSTONE
WILLIAM ANDERSON
JAMES GOODFRIEND

COVER: Design by Borys Patchowsky; photo by Bruce Pendleton.
Record Care, Part 2: A Record Life Study

How long will your phonograph records last? How many times can you safely play records without degrading sound quality? Using quality playback equipment, the factors of Record Longevity are twofold and closely interrelated: the record must be kept free of contamination, and the stylus must be kept clean during playback.

Scanning electron microscopy clearly shows the need and contribution of both record cleaning and stylus care.

Exhaustive research shows that with proper record/stylus care, an entire “life span” of 200 play events will not damage record surface quality or fidelity. (Most albums are played a total of 50 times or less.)

<table>
<thead>
<tr>
<th>200 Plays Without Record Cleaning</th>
<th>200 Plays Without Stylus Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pit from dust abrasion.</td>
<td>Prominent stylus path from abrasive-coated diamond face.</td>
</tr>
<tr>
<td>Ground-in microdust.</td>
<td>Vinyl particles welded by contaminated upper area of stylus.</td>
</tr>
<tr>
<td>Prominent dust abrasion.</td>
<td></td>
</tr>
</tbody>
</table>

Results of D4 Record Care:
- Clean central radius due to capillary attraction of D4 Fluid into D4 pad fabric.
- Microdust-free stylus path due to exclusive D4 “spiral fiber” particle holding.
- No wall-slurry of “lubricant” products.

Results of SC-2 Stylus Care:
- Reduced wall abrasion due to uncontaminated diamond face.
- Cleaned stylus leaves no welded-in particles.

There is no substitute for the valid research you get with Discwasher products. Ask for them where better dealers take interest in a longer “life span” for you.
RELATIONS BETWEEN CBS AND CHINA have been blessed with issue—the release of "Phases of the Moon," an album of ancient Chinese music performed by orchestras of traditional instruments and recorded by the China Record Co. in Beijing (a.k.a. Peking). The album, which will give U.S. tourists returning from China authentic music for their slide shows, contains varied selections chosen for their appeal to Westerners. It has the pleasantly exotic, easy-listening quality of a movie soundtrack for a remake of Lost Horizon—we might call it Shangri-La Strikes Back. CBS Masterworks plans to have "Phases of the Moon" in stores in May in time for the first stage in the reinstallation of the Far Eastern collections at the Metropolitan Museum in New York. Price: $9.98.

COMPOSER BÉLA BARTÓK'S CENTENARY is being observed throughout 1981 with many performances and new recordings of his works. Bartók recordings on Hungaroton (the Hungarian state record label) are listed in a free brochure. Included are a four-volume set of all Bartók's works complete on 38 discs, new recordings for the celebration of the centenary, and older recordings of Bartók's own performances with his wife Ditta Pásztor Bartók, violinist Joseph Szigeti, clarinetist Benny Goodman, and other musicians. Write Qualiton Records, 39-28 Crescent Street, Long Island City, N.Y. 11101.

VIDEO, ITS MAGIC SPELL IS EVERYWHERE. For the first time in a multinational music competition, videotapes were used this year to screen applicants for the Van Cliburn International Piano Competition. The videotapes were made in major cities in the U.S. and Europe, and each applicant played for 20 minutes. From 127 tapes a screening jury selected 40 candidates for the live play-off in Fort Worth, Texas, May 17-31. Climactic moments from the contest (including naming of the winner) will be telecast live in a 90-minute special funded by IBM. It will be shown Sunday, May 31, on PBS. Check local stations for time.

W. A. MOZART continues to make news nearly two hundred years after his death. Peter Shaffer's play Amadeus, about Mozart and his rival Salieri, is a hit in New York and London and has also been produced in Vienna. The Bavarian State Library in Munich has found a previously unknown symphony Mozart wrote in London in 1765 when he was nine years old. A three-movement work in F Major, the symphony will be performed at the Herrenchiemsee Palace near Munich on May 19, and a recording of it will be released at that time by Schwann Verlag of Dusseldorf. The German News Company, 218 East 86th Street, New York, N.Y. 10028, plans to import the disc.

QUEEN TOOK SOUTH AMERICA in March with a tour said to be the largest in the history of that continent. Seventy-five tons of equipment was flown down to Rio for bookings in sports arenas with capacities of up to 120,000, Rio's Maracana Stadium among them, where the only previous non-sports events were gatherings of the fans of Frank Sinatra and the Pope.

MUSICMASTERS, a new classical label, has been launched on the retail market by Musical Heritage Society, a large independent record club. The label's first release of six titles features American musicians, including flutist Carol Wincenc, guitarist Eliot Fisk, New York's Ensemble for Early Music, and the Chamber Music Society of Lincoln Center. More than 40 titles will be released during 1981 with the focus on unusual repertoire.

THE ASPEN AUDIO RECORDING INSTITUTE will be held for the fourth time this summer at the Aspen Music Festival in Aspen, Colorado. The Institute is an intensive three-week course for those interested in learning basic audio techniques. The Institute will be held in three sessions: June 22 to July 12, July 13 to August 2, and August 3 to August 23. Write the Aspen Music Festival, 1860 Broadway, Suite 401, New York, N.Y. 10023, or call (212) 581-2196.
Speaking of Music...

By William Anderson

THE WHIMSICAL GRAMMIES

When, early in the evening of the last national election, it became evident to East Coast TV pundits and their pet computers that Ronald Reagan was a shoo-in, so informed the viewing electorate—and reaped the righteous wrath of the Democrats, who claimed that the procrastination announcement affected the results of the election in California, where the polls had not yet closed. This is proof, if any more is needed, that politicians generally have a low regard either for voters or for their own candidates, but, all things considered, they are probably right. The larger the electorate and the longer the slate of nominees, the harder it is to disseminate the pertinent information, the harder it is to assimilate it. People therefore end up voting not the issues (which they do not understand), their consciences (which they seldom consult anyway), or their self-interest (who could possibly discover what it is these days?), for that takes time and resources they do not have. They vote instead for the one they perceive to be the winner, for the honest face, the engaging personality, and, above all, for a name they recognize—and that's why politicians spend all they can afford on TV appearances.

Young pop-rock singer Christopher Cross turned out to be a shoo-in too in this year's Grammy awards. He and his eponymous group carried off five of them: best record ("Christopher Cross," whence the single Sailing), best album ("Christopher Cross," whence the single came), best song ("Sailing again"), best new artist (himself), and best arrangement accompanying a vocalist. Are they all that good? For me, no; I find that the music is tame, without profile, and tediously self-resembling, that the subliterate lyrics negate the very idea of words-and-music (the whole should be greater, not less, than the sum of its parts). But the album had already gone platinum before the Grammy awards were announced, and, more important, winner Cross has (reportedly) made his circuit of the TV talk shows collecting "exposure" like a good candidate should. As a result of this electioneering overkill, Cross' record company, Warner Bros., now faces a cute pair of challenges: dealing with the newly powerful (and probably voracious) management of a just-discovered superstar and somehow producing a second album that will justify the laurels heaped on the first. Wish them luck.

If the lopsided distribution of awards in the pop-music area was embarrassing, that in the classical field was little better, with three awards going to the opera Lulu (best album, best opera, best engineering) and four to Itzhak Perlman (chamber music, soloist-with orchestra twice—a tie with himself—and soloist without orchestra). Yes, Perlman is undeniably a superb violinist and the Deutsche Grammophon recording of Lulu is a landmark of sorts, but weren't there some other fine classical recordings made during the year? There were, but they lacked the advantage of exposure: Lulu was broadcast on public television, and Perlman is a veteran TV talk-show guest who even appears on Sesame Street. The big weakness in the Grammy voting system would appear to be simply this: NARAS members vote not for things they have heard but for things they have heard of, and all too often in a field where they are less than knowledgeable. In other words, the sum of individual ignorance is not collective wisdom but whimsical absurdity. Expect it, and you'll probably enjoy it.
Now Pickering, the company with the world's finest background in cartridge development, introduces a new level of engineering brilliance in the XSV/5000. Starting with a sleek, improved cantilever tube that adds an incredible dimension of traceability, the XSV/5000 offers an improved Stereochedron™ stylus design that brings out all of the audio information, particularly in direct-disc recordings, and a new internal configuration that offers a frequency response out to 50,000 Hz.

Over three years in development, backed by 30 years of experience and carefully handcrafted to the highest standards, the XSV/5000 is the one cartridge that not only meets the most demanding technical specifications, but delivers a smooth and faithful reproduction of sound that must be heard... truly "The Source of Perfection"—hear it at your Pickering dealer today!

For further information write to: Pickering & Co., Inc. 101 Sunnyside Blvd., Plainview, N.Y. 11803

"for those who can hear the difference"
TDK brings two new standards to open reel.

TDK now announces two breakthroughs in open reel. TDK GX Studio Mastering tape: an ultra refined particle lets it handle the critical demands of live music mastering. And TDK LX Professional Studio tape, with a super refined particle that gives it a performance ideal for professional and audiophile use.

A unique polishing and binding process makes dropouts practically a thing of the past. A special graphite and carbon backcoating on all GX and some LX reduces friction for smooth winding while preventing static and diminishing wow and flutter. At last your music is heard the way you intended to hear it.

Listen to TDK GX and LX. They could open up a whole new standard of recording excellence.

LETTERS TO THE EDITOR

John Lennon

- Hats off to Steve Simels for his March review of John Lennon's last album. I often disagree with Mr. Simels, but this review—particularly in the comments about John's life and impact on so many of us—caught the man's meaning and worth brilliantly. Of all the words about John Lennon that I have read since his death, only Mr. Simels' caught his true essence—that he was the very distillation of cool. This simple insight has been missed by everyone else.

BILL EHRET
Austin, Tex.

Chocolate Blue

- The March test report on the NAD Model 3140 integrated amplifier describes it as having a "dark chocolate-brown front panel," but the photograph just above shows it in a muted dark blue. Does it come in other colors?

WALTER EMERSON
Boston, Mass.

No, but some combinative miracle of color photography and printing reproduction managed to shift the hue of our test sample out of the red area and into the blue. Apologies to readers and to the manufacturer.

Records of the Years

- As a delightedly content subscriber to Stereo Review, there is very little I can offer in the form of constructive criticism. Yet, with all due respect to Steve Simels' eloquent denunciation last year of the tendency of fans to live in the past (July 1980, page 94), there is one concession to the past that would provide a highly appreciated convenience for me and I am sure many other relatively new subscribers: namely, a cumulative listing of all previous winners of Record of the Year awards. Since I first subscribed, these awards have been an invaluable guide, and I would relish such an opportunity to wallow in the past.

NATHAN BASIK
Baltimore, Md.

Readers who wish such a listing of past winners should send a stamped, self-addressed envelope to Record of the Year Awards, Stereo Review, One Park Avenue, New York, N.Y. 10016.

Operatic Columbuses

- Geraldine Segal's letter in the March issue tells us that Jacques Offenbach wrote an opera about Christopher Columbus. My meager research turns up no such work, although in 1976 England's Opera Rara presented an Offenbachian pastiche entitled Christopher Columbus that was later recorded and released as OR2. Other Columbus operas were written by Ramon Carnicer (1831), Alberto Franchetti (1892), Werner Egk (1933, 1941), and Sergei Vassilenko (1938). Carnicer was a Spanish composer whose operas apparently had Italian librettos, but whether his Columbus was a tenor I cannot say. Unfortunately for Pavarotti and his fans, Franchetti's Columbus was a baritone (the role was introduced by Giuseppe Kaschmann).

CLYDE T. MCCANTS
Duc West, S.C.

The 1915 edition of The Victor Book of the Opera includes an entry on Aldo Franchetti's Cristoforo Colombo, an opera that was produced in Philadelphia and Chicago in 1913 as a vehicle for Titta Ruffo. Rosa Raisa was Isabella of Aragon. In Opera in Chicago (Appleton-Century, 1966) Ronald Davis tells us that the work 'had met with some success in Italy, but Chicagoans found it only of passing interest. 'It is a historic pageant with incidental music,' observed the Tribune. The music must not all have been incidental, however, for in the first act the queen is said to have prayed for fifteen minutes in the upper soprano register before giving Columbus her jewels.'

This sent me to Towers' Dictionary-Catalogue of Opera and Operetta (1910, reprinted by Da Capo Press in 1967), where I found the following composers listed as having written operas on Columbus: C. E. Barbieri, E. Pignami & Penco, G. Bottesini, R. Carnicer, R. Coppola, Felicita Casella, D.

(Continued on page 10)
WE DIDN'T GET TO BE THE LEADING AUTO SOUND SPECIALIST BY STANDING STILL.

AUTO SOUND IS DIFFERENT THAN HOME SOUND. Nobody knows that better than Delco. We’ve been leading the way with specialized sound systems for GM cars and trucks for over 44 years. Our auto sound firsts include: the first solid state radio, the first AM/FM car stereo, and the first in-dash radio/tape player.

WE KNOW DRIVING IS A FULL-TIME JOB. So, we pioneered the use of practical features such as push-button tuning. At Delco we specialize in developing sophisticated electronic inner circuitry which eliminates the need for distracting switches and tny controls.

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HOME STEREO STANDS STILL. Car stereo doesn’t.

To compensate for vehicle movement, Delco ETR™ cassette units contain sophisticated features such as: microprocessors, keyed AGCs and audio processor circuits to improve reception. Automatically.

BELIEVE YOUR OWN EARS. When you buy your new GM car or truck, ask your dealer to demonstrate a Delco sound system. Your ears are in for a pleasant surprise. Nobody knows the inside of GM vehicles quite like the automotive sound specialists at Delco Electronics Division of General Motors Corporation.

THE LAST THING YOU WANT IS STATIC. A car stereo is surrounded by electrical components which can generate static. Because we know the entire electrical system of GM vehicles, we build features like impulse noise blankers into Delco-GM stereo systems to help minimize interference.

Delco GM
MILES AHEAD IN SOUND EXPERIENCE.
Corradi, V. Fabrizi, A. Franchetti, ? Giambarini, A. C. Gomes, A. Llanos y Berete, M. G. Morales, Vincenzo F. Morlacchi, F. Vidal y Careta. Most of these names mean nothing today, but Antonio Carlos Gomes is remembered as the Brazilian composer of such Italian operas as La Guarana (1870), Salvator Rosa (1874), and Lo Schiavo (1889). The New Grove Dictionary lists his Colombo as an oratorio, however.

Yes, but how many of the title roles are for tenor? Incidentally, the fact that none of those American oboists "of the previous generation" to whom he refers? As a matter of fact, the extremely difficult and beautiful concerto by Richard Strauss mentioned in the same article was composed at the request of John deLancie, long-time principal oboist (now retired) of the Philadelphia Orchestra.

While it is true that most of the great twentieth-century composers lived in or visited the U.S. at one time or another, only a few composers and deeply flawed logic would condemn an entire class of performers for these composers' failure to provide a solo repertoire for them. Yes, Bartók lived out his last few years here, but we might as well ask why no Hungarian oboists commissioned works during his many years in Budapest. And where was Prokofiev when Russian oboists needed him? In America? As for Schoenberg, his great contribution as a teacher far overshadows the compositional output of his later years, and justly so; his major works stem from Vienna (where were the Viennese oboists, etc., etc.?). Closer to home, why did no Swiss oboist ever approach Arthur Honegger for a concerto?

In any event, the fact is that the concerto has not been a popular genre among this century's composers. One need not resort to such ill-considered anti-American mud-slinging as Holliger indulges in. I find his opinions repugnant and an insult to our fine American oboists—who, together with their other woodwind and brass colleagues, are indisputably the finest woodwind performers in the world today.

Henry L. Schmidt III  
Asst. Prof. of Music  
Muhlenberg College  
Allentown, Pa.

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**Simels**

- Even after having been an avid reader of *Stereo Review* for years, I still find Steve Simels' record reviews highly entertaining. You'd think I'd get tired by now of reading Mr. Simels' unsuppressed opinions, but I find each of his reviews more ludicrous than the last. His evaluation of "Zenytta Mondatta" by the Police in February was as de-lightfully incoherent as ever. It's refreshing to see that there are still people who aren't afraid to make their assessment of something known no matter how idiotic that assessment may be.

Allan S. Risk  
Kingston, Ontario

- The first things I turn to when I get *Stereo Review* are Steve Simels' reviews. Why? They're the best part of the whole magazine.

Gene Schumacher  
Hampton Bays, N.Y.

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**Back Issues**

- My husband recently died, but for years he enjoyed reading *Stereo Review*. Would anyone be interested in buying the back issues he left? I have copies of all but six issues from 1959 through 1980.

Nancy L. Lair  
P.O. Box 601  
Auburn, Ala. 36830
A speaker that gives more space than it takes.

The Bose® 301™ Direct/Reflecting® Loudspeaker. Some people think a small speaker is good if it sounds like a big speaker. The problem is that all conventional speakers, large and small, sound like speakers—confined, boxlike.

The Bose 301 doesn’t sound like a speaker. Music seems to form in the space around the cabinet, with startling depth and clarity unlike anything you’ve ever heard from a bookshelf loudspeaker. That’s because the 301 system reflects sound off the walls of your listening room, just as music is reflected at a live performance.

The Bose 301 system is the least expensive way for you to enjoy the legendary spaciousness of our 901™ Direct/Reflecting® speaker. Experience it at your authorized Bose dealer.

The tweeters in a 301 speaker pair are angled for a more lifelike balance of reflected and direct sound.
British-made Integrated Amplifier From Arcam

The Arcam A-60 integrated amplifier has a rated power bandwidth of 20 to 20,000 Hz, 35 watts per channel into 8 ohms, 0.2 per cent distortion. Distortion is typically less than 0.05 per cent with a 1-kHz input at any output level up to 35 watts. Phono-preamp response is from 40 to 20,000 Hz ± 0.5 dB with a 36-dB overload margin from 20 to 20,000 Hz. Phono-input impedance is 47,000 ohms in parallel with about 30 picofarads; loading modules are available to produce any lower load resistance and/or any higher load capacitance. For moving-coil cartridges an external HA-10 preamp is available. Other features include a high-frequency filter, mono switch, bass and treble controls, and a headphone output. Price: $595. Arcam (USA) Inc., Dept. SR, 652 Glenbrook Road, Stamford, Conn. 06906.

Directory of Used Stereo Equipment

The New England Electronics Exchange offers a national marketplace for audiophiles buying or selling used audio equipment. In its monthly newsletter, the Exchange lists a wide range of quality equipment, popular items from major manufacturers as well as more "esoteric" units. Equipment-condition ratings are included. In addition, the editorial pages of the newsletter address topics relevant to the used-equipment marketplace and provide candid technical advice on the care and selection of equipment.

The Exchange serves as a broker between buyer and seller. The buyer does not pay for this service or for shipping. The seller pays shipping on each item as well as a service fee of 10 per cent. A one-year subscription of the newsletter is $6, sample issue free on request. New England Electronics Exchange, Inc., Dept. SR, P.O. Box 82, Harvard Square, Cambridge, Mass. 02138.

Circle 123 on reader service card

Mura's "Hi-Velocity" Individually Controlled Stereo Headphones

Listed among Mura Corporation's extensive array of headphones, microphones, and accessories is the Model HV-230 Hi-Velocity stereo headphone. Built around ultralightweight polymer-film diaphragms and featuring vented controls, the HV-230 includes individual volume controls and a lightweight 10-foot coiled cord with plug. Rated frequency response is 20 to 20,000 Hz; impedance is 8 ohms. Price: $34.95.

Circle 121 on reader service card

Omnisonix Image Enhancer For Car Systems

The Omnisonix 801-A Omnisonic Imag- er can be powered from a car's electrical system or, with a 12-volt d.c. power supply, from house current. The device is claimed to restore "the acoustical time-field characteristics and angular sonic positioning of the original recorded signal." In contrast to the home-only Model 801 imager, the 801-A has a slide control for varying the effect but no tape-monitor switching. Input impedance is greater than 25 kilohms, signal-to-noise ratio is 68 dB, and distortion is less than 0.03 per cent. Dimensions are 4¾ x 5½ x 2 inches. Price: $149.95.

Circle 122 on reader service card

Shahinian Acoustics' Transmission-line Obelisk Loudspeaker

While only moderately different in external appearance from many other speaker systems, Shahinian Acoustics' Obelisk is said to have a most unusual interior design embodying a folded, double-prism, 48-inch hybrid transmission line driven at the front end by an 8-inch driver and terminated at the rear by a damped, 10-inch passive-radiator diaphragm. Further, the cabinet contains no parallel internal surfaces, the design being intended to enhance clarity by reducing internal standing waves. The 8-inch woofer is mounted in the lower right corner to avoid symmetrical radiation and diffraction effects. The pyramidal top contains a 1¾-inch midrange dome in front, a 1-inch dome tweeter at the rear, and a pair of ¾-inch super-tweeter domes, one on each side. Frequency response is 32 to 21,000 Hz ± 2 dB, —3 dB, with crossover points at 1,800, 4,500, and 7,500 Hz. An input of 1 watt will produce a sound-pressure level of 91 dB at 1 meter. Impedance is 6 ohms nominal, with a power-handling capacity of 150 watts. Measuring 27 x 14 x 12 inches, the system weighs 50 pounds and is available in several finishes. In walnut with a black grille or oak with a dark brown grille, the price is $550; rosewood units are $700 when available.

Circle 124 on reader service card

Stereo Review
TDK CREATES SA-X.
Now you can explore the far reaches of high bias.

TDK has added a new dimension to high bias recording. It's called SA-X.
SA-X emerges from the Super Avilyn technology that has set the reference standard for high bias cassettes. Beyond that, TDK engineers saw new worlds of high bias to explore. By taking two layers of Super Avilyn with different coercivities and optimally matching them, TDK creates a formulation that raises high bias to a higher level. One that approaches the sound quality of metal.
You will hear rock and jazz soar to new heights. Classical, with more of its wide dynamic range. A clarity that even the best bias couldn't give you before. With every kind of music, SA-X brings you closer to the richness of a live performance. And it will keep you there, with its flawless mechanical construction. TDK has given SA-X the Laboratory Standard Mechanism for optimal interfacing with cassette deck heads. You'll hear its consistently superior performance for years to come.
SA-X performs like no other cassette. Expect it to cost a bit more. You can also expect it to take you further into high bias than you've ever been.
It sounds like music.

Interface:C Series II

Interface:C Series II is the fulfillment of our six-year association with optimally vented speakers based on the theories of A. N. Thiele — speaker designs first introduced by Electro-Voice in 1973. The Interface:C offers you a unique combination of high efficiency and high power capacity — the only way to accurately reproduce the 120+ dB peak sound pressure levels found in some types of live music.

The SuperDome™ tweeter, an E-V exclusive, and the VMRTM vented midrange driver, the first to apply optimally vented design to mid frequencies, ensure your music is reproduced without the coloration normally found in other high-efficiency drivers. An honest 30 Hz low end totally eliminates the need for expensive subwoofer assemblies.

When you spend $1,000 for a speaker system, get your money's worth. Audition the Interface:C Series II at your nearest Interface dealer. If you want a speaker that sounds like music, the Interface:C Series II is the one you'll buy.

Digital Transducers?

Q. When may we look forward to digital transducers, either electromechanical (loudspeakers) or bionic (“improved” ears)? Perhaps what we really need is a direct digital interface with the brain.

A. It is not my intention to rain on anyone’s digital parade, nor to imply that excessive digital input results in muscle weakness, hairy palms, or blindness, but digital recording and reproduction is not an audio cure-all. Those real problems that digital does solve have no relationship to the more critical ones involving the interface between the original sound source and the transducers (microphones) and the interface between the transducers (speakers) and the listeners’ ears. It is at these two points that “reality” of reproduction is usually lost, no matter how perfect the recording and processing in between has been.

In general, recording microphones are neither set up nor designed to sample the original sound field in sufficient detail to convey to the recording — whatever the technique — enough information to enable a plausible facsimile of the original field to be reconstituted on playback. This is true no matter how perfect the transducers at the input and output ends of the process. (On the other hand, the best of today’s “nondigital” loudspeakers are certainly good enough if the environment they are operating in is adequate and if the material being fed to them has been recorded in such a way that there is enough information available to reconstitute an approximation of the original sound field.)

I don’t know whether Mr. Bowen’s suggestion about feeding a digital signal directly to the “listener's” brain is meant seriously or not, but the only signals that the brain will accept are those encoded with a type of modulation in which the strength of the sensory input is expressed by a higher “firing” pulse rate at the output of the specific sensory detector. This bio-electric phenomenon has been described as pulse-rate modulation, which is not quite the same thing as digital encoding. (Incidental-
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.

More music, less noise. More machine. Better value. That’s what Sansui cassette decks are all about. Come see the full line now at your local Sansui dealer.
Tape Talk

By Craig Stark

High-frequency Testing

Q. When I read test reports in STEREO REVIEW and other magazines, playback response always stops at 10,000, 12,000, or 14,000 Hz, whereas overall record-playback response tests go all the way to 20 kHz. Why is this?

SAUL MIRSKY Cambridge, Mass.

A. Reader Minsky has hit upon one of the pet grievances of everyone who is involved in testing cassette decks professionally, but, in fairness, the test-tape manufacturers who deliberately restrict the high-frequency limit of their products have a case that must be heard.

The extreme-high-frequency response of a cassette deck is determined not only by the electrical accuracy of its playback equalization circuits but by whatever losses are imposed by the tape head and its connecting cable. The chief source of head losses in the treble range is "gap width"—the distance between the two pole pieces of the head. With modern cassette decks this distance usually lies between 0.7 and 1.4 micrometers. (One micrometer, often called a "micron," equals approximately 39 millionths of an inch.)

Except for "gap width" losses, it would be easy to test the playback response of a cassette deck without a test tape, using only a small coil of wire and an audio generator. Moreover, there is a rather widely accepted mathematical formula for calculating the gap loss—if you can assume that the gap is ideal. In practice, however, when dealing with such microscopic dimensions, the head gap isn't ideal on any existing recorder, including the laboratory machines that would be necessary to calibrate a test tape in the extremely short-wavelength (high-frequency) range. Since the manufacturer of a test tape must be able to guarantee its accuracy, it is next to impossible to achieve calibrated accuracy at the highest frequencies of a top-grade cassette deck.

There is another difficulty as well. Let's suppose that you had a "perfect" test tape. How long would it stay perfect? The higher the top frequency, the quicker it would lose its accuracy in actual use. Magnetized capstans and heads can destroy a calibrated tape's accuracy in a single pass, of course, but with even the most scrupulous care there is a "magnetostrictive" effect—a high-frequency (short-wavelength) loss imposed by the physical stress of squeezing the tape between a capstan and a pinch-roller. Unfortunately, the amount of this loss is not entirely predictable, except that the higher the frequency, the greater the loss.

Why Demagnetize?

Q. I've been using open-reel and cassette decks for years without demagnetizing the heads. Yet every time I record and play back a sweep signal my recorders are within specs. A friend, a professional recording engineer who scrupulously degausses his heads before every job, expressed surprise at this. Have I just been incredibly lucky?

BRUCE MALLION Stoneham, Mass.

A. I recently had occasion to discuss this with one of Maxell's top engineers, who stated that loss of short-wavelength (high-frequency) response when playing a tape many times was less likely to be caused by magnetized heads than by "magnetostrictive" effects—that is, by the physical pressure involved in squeezing the tape between the capstan and the pinch-roller, or by running the tape around small-diameter (sharp bending-radius) tape guides. The development of less "leaky" output capacitors and of bias oscillators with little, if any, second-harmonic distortion has certainly made heads less prone to magnetize when playing a tape many times. Nonetheless, periodic head demagnetizing, however, as my engineering-expert friend went on to explain, is a good idea to try to unscramble the two halves of the cassette shell together by, I'm told, sonic welding. The premium cassettes, however, are held together by screws. Is this so that if the tape breaks you can get inside to repair it? A local dealer told me that sonic welding was actually better.

SHEILA KURTZ San Francisco, Calif.

A. On a recent visit to BASF's tape plant in Bedford, Mass., I had an opportunity to discuss this question with this chief applications engineer. His comments, based on research toward improving BASF's cassette shell, supported those I had earlier heard when I last visited 3M's facility.

Both companies use a five-screw cassette, yet both agree that with today's sonic-welding technique you can make a better job. Not a hugely better job, but a better one. Why stay with the five screws, then? Because the audiophile's reaction—much of it based on experience with non-premium cassettes, where nothing is held to tight tolerances—is to associate sonic welding with "cheapness" and screw construction with quality.

Your dealer is right—today, years ago, the problem of cassette-tape breakage was much more severe than it is today, and even when this now-rare event occurs, if the cassette's contents are that valuable it is not a good idea to try to unscrew the two halves, make your fix, and reinstall the screws. This is because, during reassembly, you simply can't turn the screws down to the same exact pressure they were set to at the factory. Rather, you should buy a "C-O" (a shell with leader tapes attached, but no tape inside) or even a new C-30 and pull out its tape (leaving the leaders) and make your fix on an unwound shell, spooling the damaged tape in with a pencil in the hub sockets.

"Wrong" Equalization

Q. I record all my tapes using Dolby-B, and top-quality high-bias cassettes. When compared with the source, however, the playback has a large treble loss that I can cure only by switching from the "chrome" to the "feric" equalization. Will I hurt either the tape or the deck by doing this? Is the Dolby system responsible?

SCOTT RUBENSTEIN Greenlawn, N.Y.
You certainly won't harm anything by playing a tape designed for CrO₂ (70-microsecond) reproduction in the ferric (120-microsecond) position. The effect is roughly comparable to turning up your amplifier's treble control by 4.5 dB. You get a bit more tape hiss, but brighter highs. I don't recommend trying to record tapes with the wrong bias/equalization, however. Some decks automatically switch to the correct record bias/EQ, but if yours doesn't you'll find that a CrO₂-type tape recorded in "ferric" will have high distortion and an overly bright treble range; a ferric tape recorded in the "chrome" position will suffer severe high-frequency losses.

What you should be concerned about, however, is why your deck is turning out tape copies so deficient in treble that you have to resort to the trick of using the "wrong" playback equalization to goose up the high end. There are several possibilities to consider.

It is highly improbable that the Dolby-B system in and of itself is responsible for the loss of highs you hear, but it's easy to check. Switch the noise reduction out and make a short "test" cassette, again comparing "source" to "playback." If you don't have to use the ferric playback position on your chrome-equivalent tapes to get a proper high end, then the problem is obviously in the Dolby circuits, probably in the sensitivity-level control. (Make sure that you don't mistake tape hiss for extended high-frequency response.) Which brings us to the second possibility.

Assuming, as I must, that your tape deck (which you did not specify—other readers please take note) is inherently capable of full-range recording/reproduction, it is possible that its "chrome" bias was set using a "true" CrO₂ tape (such as BASF Professional II) rather than with a "chrome-equivalent" tape (such as Maxell UDXL-II or TDK SA). This is more probable if your deck is of European manufacture. A tape such as the BASF requires a little more bias than the "equivalent" tapes, so the Maxell or TDK tapes would be slightly "over-biased," resulting in a slight loss of treble response. At the same time, the CrO₂-equivalent tapes have a somewhat higher sensitivity (that is, they put out a bit more signal when recorded at the same level). This would tend to "fool" the Dolby system (if calibrated on the "true chrome" BASF tape) in a way that would cut the high frequencies just a little bit more. The cumulative effect might be just about the amount of high-frequency loss you are presently compensating for by switching the playback to the "ferric" position when using a "CrO₂-type" tape.

A third possibility, of course, is that your deck simply isn't capable of adequate treble response without artificial help. Many readers have written me about high-frequency losses in their cassette decks, and when I looked up the specifications I found them listed as -3 dB at 13,000 Hz!

Because the number of questions we receive each month is greater than we can reply to individually, only those letters selected for use in this column can be answered. Sorry!
A RECENT letter from a young engineering student asks how he should go about becoming an audio-component reviewer and whether the job is as much fun as it seems to be. Actually, I doubt that anyone now engaged in reviewing audio components (especially myself) ever started out with that "occupation" as a goal. This is a very limited field, and only a small handful of people in this country earn a major part of their income in this way.

This is not the first time I have been asked about opportunities in this rather exclusive profession and about the required training. Although I know of no formal courses that lead in this direction, I would consider an engineering background, preferably in electronics, to be a prime requirement. Almost all of my colleagues, like myself, are graduate electronic engineers who have worked for some years in industry and who started testing audio components on a part-time basis before making it a full-time occupation. Unlike most of the others, I have never worked directly in the audio industry, having spent some twenty-five years in a number of other electronic-engineering activities, principally in the design and development of spectrum analyzers and related sophisticated test instruments.

I believe that a good reviewer and a good engineer share certain basic qualities, principal among them being clear, logical thought processes and the ability to distinguish fact from fancy (the latter is especially important in view of the many highly subjective aspects of hi-fi). The specific knowledge of engineering and physics acquired during schooling and work experience is certainly useful, though less so than the logical disciplines I mentioned. In addition, years of practical bench experience are the best way to acquire a "feel" for the techniques—and an understanding of the limitations—of measurement, both vital for doing this sort of work.

A hobby interest brought me into the hi-fi world initially, as it did for so many others. I was fortunate in becoming infected with the hi-fi virus in the formative years of the industry in the late Forties through the usual route: building my own amplifiers, speaker enclosures, and so forth. The amount of ignorance and misinformation among hi-fi hobbyists in those days was at least as great as it is today, and it was aggravated by an absolutely unbridled hyperbole on the part of many manufacturers and "inventors" of new and wondrous devices.

I started with little real knowledge of audio per se, but I found that testing audio components made by myself and my fellow workers, as well as the commercial products we bought, soon gave me an insight into the real (as opposed to the claimed) performance of the components of that time (that was in the early 1950s). At first, this testing was done merely for my own information, but soon I and a few fellow engineers at the company where I then worked decided to issue a newsletter, called The Audio League Report, in which we would "tell it like it is." (That sounds much like the raison d'être of many of today's "underground" audio magazines, whose creators may not be aware that I was a co-founder of the first of that genre!)

Our Audio League reviews were a mixture of the objective and the subjective, for we were able to use our employer's extensive laboratory facilities in off-hours for our testing. They were later supplemented by tests in home laboratories, using less precise but nevertheless adequate instruments. Re-reading some of our old reports, I find them to be surprisingly good (I suppose I cannot be considered entirely unbiased in that judgment) except for an occasional excess of self-righteousness springing from an excusable naïveté.

In those days there were virtually no applicable measurement standards comparable to today's IHF and DIN standards. We had to devise our own, based on experience and common sense, and they worked well for many years (many of their specifics have since been incorporated in current IHF standards). The service we provided was unique, and we soon found ourselves with 5,000 impatient subscribers who wondered—why the reports were always late!

We were able to keep this up for about three years, during which time we were reduced in numbers to only two (Gladden Houck and myself) and were literally overwhelmed by the work load involved in getting out our rather crude little newsletter a few times a year.

The only way we could survive was to arrange with commercial hi-fi magazines (which were then beginning to appear to meet the needs of a new and expanding hob-
lead to paralyzingly dull reports that are quite unsuitable for a largely nontechnical readership.

By 1969, circumstances made it advantageous for me to leave the engineering field and become a full-time reviewer (my partner Houck left the audio field at that time). Since my testing and writing had always been done at home, the transition was an easy one. In those days, my basement was large enough to house the laboratory, and personally, I suppose that I have never fully outgrown a hobbyist’s outlook, and I hope I never do. I love to use, handle, and listen to the many new products that appear on my test bench, and the trauma of shipping them back to their manufacturers is lessened only by the regular arrival of new products and the need to make room for them both physically and in the test schedule.

As you can see, it is a little difficult to put into a nutshell all the requirements, benefits, and pitfalls of the audio-testing profession as my correspondent asked me to do. Each of us now in this field, having arrived through a different route, is a unique case. I have stated the basic requirements—engineering training and writing ability—which I think would apply to anyone (I recognize that not every good reviewer is a graduate engineer, but the majority are, and the others with whom I am acquainted share the attributes and thought processes of a trained engineer). There is also an implicit requirement: a suitably equipped test laboratory. When I started, this could be done inexpensively with kit-built instruments. That will no longer suffice, and a properly equipped test lab, even with judicious selection of used laboratory-grade instruments, must cost at least $10,000, and with new equipment it might run several times that amount.

What about the benefits? It is possible to earn a comfortable living in this field, generally in proportion to how much time one is willing to invest (most reviewers are also free-lance writers, not necessarily on matters relating directly to equipment). Usually the tester must provide his own “fringe benefits,” such as hospitalization insurance and a pension. The fun of working with all the newest hi-fi equipment hardly needs any emphasis, especially to a dyed-in-the-wool audiophile. And being your own boss has certain advantages in respect to working conditions. But remember that publication deadlines wait for no one, and it is often necessary to adjust your personal schedule to fit your client’s requirements.

For example, before going on vacation, I have to get ahead of my normal schedule by the amount of work I would normally do during the vacation period, and that can be difficult at times.

There is, of course, considerable personal satisfaction in the work and in getting to know, over the years, many of the people who have helped make this industry what it is. Being a member of the audio press corps gives one the opportunity to attend press luncheons and dinners at which new products are introduced, and there are also occasional trips to visit manufacturers’ facilities both here and abroad.

The only pitfall I can think of in connection with planning to become a professional audio reviewer is the simple fact that there is almost no entry-level opportunity in the field, except as existing positions become vacant, for whatever reason. My advice to my young correspondent, and anyone else hoping to do this kind of work, is to concentrate on learning as much as possible about the subject, getting “hands-on” experience in testing components in his spare time, and writing articles for magazines in the field. If he has the ability, it will eventually be recognized and he may be able to realize his ambition. In wishing him and all others of like mind good luck, I must in fairness state that I have no plans for retirement in the foreseeable future! After all, how could retirement be any better than what I am doing now?

Test Reports begin overleaf
Sennheiser's reputation as a manufacturer of high-quality stereo headphones was established largely by their pioneering work with non-isolating headphones—which they call "Open Aire." The ear cushions of these phones rest lightly on the ears and do not attenuate outside sounds. Although special design techniques are required to develop a uniform low-bass response from phones that do not seal around the ears, as a class they are much more comfortable to wear than conventional circumaural or sealing-type headphones.

Recently, Sennheiser has added circumaural phones to their product line. The newest is the HD 222, which weighs only 9 ounces (exclusive of the cord and plug). Its foam-filled ear cushions surround the ears, providing considerable isolation from outside sounds, yet they are so soft and comfortable that one does not have the feeling of pressure and weight that is typical of so many sealing phones. The molded-plastic headband has an adjustable inner vinyl strap that fits around the head and distributes the already light weight of the phones over a large area so that they can be worn for extended periods without discomfort.

The earpieces contain dynamic transducers with a rated impedance of 600 ohms. The German-made HD 222 phones are rated by DIN standards to deliver a sound-pressure level of at least 94 dB for an input of 1 milliwatt (0.77 volt). The maximum continuous-input rating is 0.2 watt (11 volts). The harmonic-distortion rating by DIN standards is less than 0.1 per cent.

The Sennheiser HD 222 phones have a lightweight, straight (uncoiled) 10-foot cord fitted with a molded plug. The suggested retail price of the phones is $120. An accessory 10-foot volume- and balance-control cable is available for $22.20.

Laboratory Measurements. Our headphone test coupler is essentially identical to the standard ANSI type, upon which a pair of headphones can be mounted as on a wearer's head. A calibrated microphone inserted behind one "ear" cavity measures the sound-pressure level created by that earpiece. The frequency response of the HD 222 phones was measured with a drive of 0.77 volt, equivalent to 1 milliwatt into its rated 600-ohm impedance. The bass and lower-midrange output was good, varying only about ±3 dB from 20 to 400 Hz. Above that frequency the output dropped off smoothly to a minimum in the 1,000- to 5,000-Hz range, where it was roughly 10 dB less than the average bass/midrange value. The output then increased sharply above 5,000 Hz, reaching a maximum at 10,000 Hz before falling steeply at higher frequencies. The maximum high-frequency level was about the same as the highest low-frequency reading. This sort of frequency-response measurement is not unusual in headphones, since it reflects the characteristics of the coupler as well as those of the phones.

The average sound-pressure level below 400 Hz was 97 to 98 dB. We also measured the sound-pressure level at 1,000 Hz, with the 0.77-volt drive level, as 90 dB. The impedance was an almost constant 600 ohms (as rated) across the audio range.

The harmonic distortion of the headphones' acoustic output was measured at frequencies of 20, 1,000, and 5,000 Hz, using a number of input voltages up to 12 volts. At middle and high frequencies the distortion was very low, ranging from 0.2 to 0.5 per cent at inputs from 0.1 to 12 volts. The latter, which is slightly higher than the maximum continuous-input rating of the phones, produces a very high sound level, more than 110 dB in the midrange. The 20-Hz distortion was only slightly higher, measuring between 0.6 and 1.4 per cent over the same range of input voltages.

Comment. The test data confirm that the Sennheiser HD 222 has very low distortion, more than adequate sensitivity, and a very... (Continued on page 22)
Its mother was a computer.
Its father was a Kenwood.

We think our new KR-770 is the most intelligent high performance receiver in the world. The heart of our new receiver is its remarkable brain. A microprocessor-controlled quartz synthesizer tuning section, which uses Kenwood's unique computerized digital frequency encoding system to provide incredibly accurate, drift-free AM and FM stereo reception.

There's also a lot of convenience engineered into our computer-memory receiver. Like automatic station scanning. Six AM and six FM digital tuning presets which you can program to instantly address your favorite stations.

And a lithium battery powered memory-safeguard system to save the programming in your receiver's digital memory in case of power loss.

But there's more to our new KR-770 receiver than just brains. Take power, for instance. 80 watts per channel, minimum RMS at 8 ohms from 20 to 20,000 Hz with less than 0.02% total harmonic distortion.

**HI-SPEED**

And for performance, the KR-770 provides a long list of innovative Kenwood engineering features. Like Hi-Speed™ circuitry for exceptional musical clarity. DC to give crisp, clear bass response down to 0 Hz. Our new Zero Switching output circuits to eliminate crossover distortion. And wide and narrow IF band circuitry to maximize FM reception. You also get digital frequency read-out. LED indicators for power output, signal strength and function controls. Plus a built-in equalizer.

See your Kenwood dealer for a demonstration of the first computer good enough to be a Kenwood.

For the Kenwood dealer nearest you, see your Yellow Pages, or write Kenwood, P.O. Box 6213, Carson, CA 90749.
good bass response. Since the frequency response measured on a headphone coupler is certain to be different from that existing in a human listener’s ears with the same phones, we listened at length to the HD 222 with different types of program material, comparing its sound with that of other phones with which we are familiar.

First, we must say that these were among the most comfortable phones (of any type) that we have ever used. In many respects we found their soft cushions to be more comfortable than most open-air phones we have worn. One has almost no sense of wearing phones; there is no pressure on the top of the head or on the ears and none of the feeling of confinement that so often results from extended headphone use.

The sound, to our ears, tended to be somewhat “bottom heavy.” If the program had lots of highs or was artificially brilliant, the balance of the HD 222 often improved the sound and made it most listenable. On the other hand, if the program was lacking in highs, as in AM reception, the result was often a rather dull quality. The excellent low-bass response of the HD 222 also made it a most revealing indicator of the presence of 60- or 120-Hz hum in the audio signal (this is often a problem with high-quality sealing phones, but rarely with open-air types). On the positive side, we found that the HD 222 could play at high volume levels without significant audible distortion at any frequency and with a worthwhile degree of acoustic isolation provided by its sealing ear cushions.

Circle 140 on reader service card

THE SIARE (pronounced C-R) Delta 400 is a three-way speaker system manufactured in France and imported into this country by SIARE Corporation of Ronkonkoma, New York. The Delta 400 presents a distinctive appearance, with a “stepped” profile characteristic of its “phase-aligned” design. The woofer is mounted forward of the other drivers, with the tweeter at the top of the cabinet being farthest to the rear. The sloping portions of the cabinet under the treble and midrange drivers are covered with foam plastic to reduce diffraction effects.

The Delta 400 uses a single long-exursion woofer whose cone has a nominal diameter of about 9 inches. It operates in a fourth-order vented enclosure (designed according to the criteria established by Thiele) with a 2-inch-diameter port. There is a 12-dB-per-octave crossover at 500 Hz to a 4¾-inch cone driver operating in its own sealed sub-enclosure. The second crossover, at 4,000 Hz, is to a 1-inch soft-dome tweeter.

The woofer cone is formed of paper with a polyvinyl-chloride surround. The midrange driver cone is made of woven fiberglass coated with a hardened resin which is said to have a lower mass and greater rigidity than an equivalent paper structure.

The internal surfaces of the enclosure are covered by specially slotted wooden panels which the manufacturer calls “acoustical stabilizers.” They are claimed to stiffen the enclosure walls and to damp undesirable panel resonances. The system has a rated impedance of 8 ohms and a sensitivity of 89 dB measured at 1 meter with a 1-watt input. The entire front is covered with a large dark-brown cloth grille stretched on a heavy wooden frame that weighs some 4½ pounds. The cabinet is veneered in walnut.

The SIARE Delta 400 is 30½ inches (Continued on page 24)
In the 1970s, Blaupunkt introduced the world’s first fully electronic car stereo. For the 1980s, Blaupunkt designed the new Berlin—a superbly engineered AM/FM Stereo Cassette that, among other remarkable things, automatically raises and lowers its own volume.

The Berlin’s unique dual-unit construction, winner of four industrial design awards, is a masterpiece of human engineering.

**Controls at your fingertips**

Unit One is the Operating Head. Mounted on a flexible stalk, it is a marvel of electronic miniaturization. Into a space the size of a 100 mm. cigarette pack, Blaupunkt engineers organized the most frequently used radio controls.

By manipulating the flexible stalk, the Head can be adjusted in any direction to put these controls comfortably at your fingertips. No groping, no taking your eyes off the road.

**Blaupunkt Berlin Features**

- 4 x 20 W (4 Separate Channels)
- 7 Electronic Station Presets
- Electronic Signal Scan
- SALS (Sound Ambient Level Sensor)
- Stereo/Mono Switch
- Automatic Muting
- AM/FM/SW/LW
- ASU (Automatic FM Noise Suppression)
- Dolby Noise Reduction Circuit
- Autoreverse Cassette
- Pushbutton Locking
- Fast Forward & Rewind
- Permalloy Head
- Separate Bass & Treble
- Separate Fader and Balance
- Cassette Gain Control
- Tape Pause Control
- Loudness Contour Control
- Tape Bias Compensation Switch

**Automatically adjusts its own volume**

Unit Two contains the Stereo Cassette Player and the remaining sound modulation controls. One of these controls is a remarkable Blaupunkt innovation called SALS, an electronic sensor that automatically raises or lowers the volume to compensate for changes in interior or exterior noise levels. No other car stereo in the world is equipped with SALS.

**See and hear the Berlin**

Consult the Yellow Pages under Automobile Radios for your nearest Blaupunkt Distributor. He’ll arrange a demonstration of the Berlin or any of the superbly engineered in-dash models in the full Blaupunkt line of AM/FM Stereo Cassettes.
Laboratory Measurements. The smoothed and averaged frequency-response curves from the left- and right-channel Delta 400s, measured in the reverberant field of the room, showed only moderate beaming from the midrange and treble drivers. The difference between the curves measured on axis and 30 degrees off axis began to be measurable at about 2,500 Hz but differed by only about 2 or 3 dB up to 12,000 Hz and increased to 6 dB at 20,000 Hz. When the average response was corrected for room absorption, it showed only slight irregularities through the midrange and treble, with a gradually rising characteristic above 4,000 Hz.

The close-miked woofer response, when combined with the frequency response measured at the port, produced a surprisingly extended bass curve. The effective crossover between the cone and port radiation was at 50 Hz. The bass and mid/high-frequency curves could be spliced unambiguously because of their considerable overlap, and the resulting frequency response was within ±3 dB from 30 to 20,000 Hz.

Each Delta 400 speaker comes with its individually measured frequency-response curve, made in an anechoic chamber. In view of the very different test conditions, our measurements could not be expected to duplicate these curves, but it was gratifying to find that the various small variations in the response occurred at about the same frequencies in the factory curves and in ours, and with approximately the same amplitudes. The anechoic curves did not show the rising high-end response we found in our "live" room measurements, but our bass response was considerably better than the manufacturer's response curve.

The measured sensitivity of the Delta 400 was close to its 89-dB rating. We obtained a sound-pressure level of 88 dB at 1 meter when the speaker was driven with 2.83 volts (1 watt) of pink noise in an octave band centered at 1,000 Hz. The speaker impedance was 8 ohms at its normal rating frequency (150 to 200 Hz) and reached its minimum of 7 ohms between 10,000 and 15,000 Hz. There were impedance maxima of 20 ohms at 60 Hz and about 14 ohms at 700 Hz, as well as a rising impedance as the frequency went below our 20-Hz minimum measurement limit.

Clearly, these performance measurements are those of an excellent speaker. However, the Delta 400 woofer does have its limitations in the form of greater low-bass distortion, especially at high power inputs, which combined with the performance of larger bass drivers. At a nominal 1-watt input, the bass distortion was very low (under 1 percent) down to about 65 Hz. Below that frequency the output from the woofer began to fall off rapidly, so that when we used the distortion measured at the port below 50 Hz, it reached 5 percent at 40 Hz, which is not at all excessive, especially for a cone the size of this one. When the power input was increased to 10 watts, the distortion changed negligibly in the woofer cone's operating range, but it rose precipitously at the frequencies where the port radiation was dominant. The distortion was about 10 percent at 50 Hz.

Comment. These measurements do little more than confirm that the Delta 400 is a good speaker, which could also be inferred from its general design, construction, size, and price. Only listening can show the true mettle of any speaker, and we listened to these speakers by themselves as well as in comparison with some other fine speakers. Several conclusions could be drawn from these tests.

First, the Delta 400 is not at all bass-shy, but neither is it going to satisfy the pipe-organ and/or bass-drum buff. With this bass quality there comes a refreshing freedom from tubbiness or mid-bass coloration; common defects among speakers of all types and prices. We have heard few systems as uncolored in the lower midrange and upper bass as the Delta 400.

According to the importer, the qualities of the Delta 400 favor the reproduction of the human voice, especially those of male singers. We found the sound of the Delta 400 to have a slightly crisp, sharply defined quality on some voices and a silky-smooth quality on others. It never added boom or muddiness to any voice, and all things considered we would have to agree that it is an uncommonly fine vocal reproducer.

Aside from questions of aesthetics (this is certainly a "different" looking speaker!), the "bottom line" has to be one of cost. The Delta 400 is a rather expensive system with no evidence of corner-cutting anywhere. It is always clean and musical in its sound, which is as distinctive as its appearance.

Circle 141 on reader service card

Toshiba SA-2500 Stereo Receiver

In the past, stereo receivers with list prices under about $300 have usually been rather basic in their operating flexibility and control features, and their electrical performance was rarely comparable to that of higher-price models. Although power ratings of 30 watts or so were not uncommon, their distortion levels were typically several times the minuscule values more expensive products could boast.

Toshiba's Model SA-2500 receiver represents a sizable step toward closing the gap between low and medium-price receivers, both in performance and in features. It is a very convincing demonstration of the manner in which technology has overcome inflation, at least in the high-fidelity-component (Continued on page 28)
This is no drill. This is the Air National Guard. The professionals who keep watch on the skies over America. All day.

Every day:
- It's serious business, because it's for real. And everyone from the jet engine mechanic to the weather technician knows it.
- That's why they're here. They know every time a pilot leaves the ground, they're riding with him. Their communications network, his ears. Their radar scopes, his eyes. Their aircraft maintenance, his life.

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

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

See your local Air National Guard recruiter. Or call us toll-free 800-638-0936 (except in Alaska, Hawaii and Puerto Rico), in Maryland call 301-981-3610.
Certainly five or ten years ago one could not comparably priced unit we have tested. well as better in almost every way, than any field. The SA-2500 is "more" receiver, as $250 or anything close to that figure.

The power ratings of the SA-2500 are in line with what we would expect at its price (25 watts per channel into 8-ohm loads from 20 to 20,000 Hz), but its distortion rating of 0.05 per cent rivals the performance of most far more expensive receivers. Similarly, although the FM-tuner section has good, if not outstanding, ratings for sensitivity and selectivity, its distortion in both mono and stereo is only a fraction of what we used to get in receivers before the development of specialized integrated circuits.

The Toshiba SA-2500 has a clean, open look that approaches a signal to show which direction the dial pointer should be moved to reach the center of the channel. Five green LEDs come on sequentially to form a horizontal line whose length is proportional to the signal strength, for both FM and AM, and a red STEREO light shows the reception of a stereo-FM transmission. The dial cutout is flanked by a rectangular power button and a large knob that operates a flywheel tuning mechanism. The other controls form a single line across the bottom of the panel. In the center of the group are four small knobs for the bass, treble, balance, and volume controls. The balance control is center-detented, and each tone control has eleven detented settings.

To the left of the knobs are three small pushbuttons that separately activate the two sets of speaker outputs and switch in the "16-Hz Subsonic" filter. Three similar buttons to the right of the knobs control the loudness compensation, tape-monitor functions, and the FM muting/mono. The remaining knob is a FUNCTION (input) switch with positions for AM, FM, PHONO, and AUX.

On the rear apron of the SA-2500 there are binding posts for 300-ohm and 75-ohm FM antennas and a wire AM antenna, as well as a hinged and pivoted ferrite-rod AM antenna. The two pairs of speaker outputs are spring-loaded connectors, and there is a single unscrewed a.c. convenience outlet. The Toshiba SA-2500 is furnished with walnut-grain wooden side panels on its metal cabinet. Its overall dimensions are 17¾ inches wide, 13¼ inches deep, and 4½ inches high. It weighs 17 pounds, 10 ounces. Price: $249.95.

Laboratory Measurements. Because of its relatively low power rating in proportion to its size and weight, the SA-2500 ran quite cool during all our tests. With both channels driving 8-ohm loads at 1,000 Hz, the output waveform clipped at 34 watts per channel. Into 4-ohm loads, the power at clipping was 46 watts. The maximum continuous power output could not be measured with 2-ohm loads because the receiver's internal protective fuses blew before we reached the clipping level. The total harmonic distortion with 8-ohm loads rose smoothly from under 0.01 per cent at less than 1 watt output to 0.02 per cent at 30 watts. The distortion was slightly higher (Continued on page 30)
Professional I.  
The one tape that stands up when you crank it up.

Professional II.  
The world's quietest tape puts nothing between you and your music.

Professional III.  
The only car tape that eliminates the car.

Premium ferric oxide tapes have more headroom which allows higher maximum recording levels (MRL). Among all premium ferric oxides PRO I has the best MRL for loud recordings. Uniform magnetite particles provide increased headroom for very accurate and loud recordings with virtually no distortion. In the fundamental music range (20Hz-5kHz) PRO I can be recorded louder and driven harder than even high bias tapes.

PRO I is the internationally accepted reference tape, whose bias point is specifically matched to the Type I/normal/ ferric position on today's high quality cassette decks.

Patented "Jam-Proof Security Mechanism (SM)."

The guaranty of a lifetime:

All BASF tape cassettes come with a lifetime guarantee. Should any BASF cassette ever fail - except for abuse or mishandling - simply return it to BASF for a free replacement.

BASF
Crosby Drive, Bedford, Massachusetts 01730

CIRCLE NO. 6 ON READER SERVICE CARD
when we drove 4-ohm loads, rising from 0.02 per cent at less than 1 watt to 0.09 per cent at 35 watts. Although actual waveform clipping did not occur until we reached 46 watts, some high-frequency oscillation appeared on the waveform at outputs between 35 and 46 watts, preventing measurement of the harmonic distortion at those levels.

At outputs up to the rated power of 25 watts into 8 ohms, distortion of the amplifier was less than 0.05 per cent from 20 to 20,000 Hz (it was typically in the range of 0.01 to 0.03 per cent at most frequencies and power outputs). Two-tone intermodulation-distortion (IM) measurements using 19,000- and 20,000-Hz input signals of equal amplitude with a combined peak power equivalent to a 25-watt sine-wave signal resulted in second- and third-order products (at 1,000 and 18,000 Hz, respectively) at -72 and -75 dB relative to 25 watts. These distortion levels are too low to be in any way significant.

We measured the dynamic-power output of the SA-2500 with the 20-millisecond tone bursts of the standard IHF test signal. Into 8 and 4 ohms, the short-term clipping power was, respectively, 50.4 and 81.6 watts. Because of the short duty cycle of the test signal, we were also able to measure the maximum unclipped dynamic power into 2-ohm loads into 8 ohms, the distortion of the amplifier's rated 25 watts, the IHF clipping 98.9 watts per channel. Referred to the amplifier's equivalent to a 25-watt sine-wave signal resulted in 10 dB with the same pulsed test signal, but I don't like it that much!

For a reference output of 1 watt, an input of 23 millivolts (mV) was required at the auxiliary or 0.37 mV at the phono input. The respective A-weighted noise levels, referred to 1 watt, were -80.4 and -76.4 dB. The phono input overloaded at 175 mV at 1,000 Hz and at the equivalent of 185 and 157 mV at 20 and 20,000 Hz, respectively. The phono input has a measured resistance of 47,000 ohms shunted by 15 picofarads across its resistor loads.

The preamplifier tone controls had typical frequency-response characteristics, with the bass-turnover frequency varying between 200 and 400 Hz and the treble curves hinging at 2,000 Hz. The loudness compensation boosted both low- and high-frequency responses as the volume-control setting was reduced. The "16-Hz" filter, which has a rated slope of 6 dB per octave, affected the response as high as 100 Hz and at 20 Hz had reduced it by about 3 dB. The RIAA phono equalization was very accurate, varying by only 0.5 dB overall between 20 and 20,000 Hz. There was a very slight loss of high-frequency response when the phono equalization was measured through the inductance of a typical magnetic phono cartridge in our test setup.

The FM-tuner section of the SA-2500 had an IHF usable sensitivity in mono of 11.8 dBf (2.1 microvolts, or µV) and in stereo it was set by the automatic switching threshold at 23 dBf (7.5 µV). The respective 50-dB-quieting sensitivities were 15 dBf (3 µV) for mono and 37 dBf (39 µV) for stereo. The distortion at 65 dBf (1,000 µV) input was 0.067 per cent in mono and 0.13 percent in stereo, and the noise levels were -74 and -70 dB, respectively.

The two-tone intermodulation distortion with FM modulating signals of 14,000 and 15,000 Hz was -57 dB for the third-order (13,000-Hz) component relative to each tone, and -75 dB for the 1,000-Hz difference tone relative to 100 per cent modulation. The capture ratio was 1.38 dB and AM rejection was 56 dB, both at 45 dBf (100 µV) input. The average alternate-channel selectivity was 62 dB, and the adjacent-channel selectivity was 6 dB. The measured signal rejection exactly matched the rating of 60 dB. The 19-KHz pilot-carrier leakage was a low -67 dB. The tuner hum level was -68.5 dB, and it consisted of a large number of power-line harmonics whose spectrum indicated a 1.25-millisecond pulse at a 120-Hz repetition rate (the hum was certainly not audible, however).

The stereo frequency response was flat from 30 to 1,000 Hz, rising slightly at higher frequencies to a maximum of +1.7 dB at 10,000 Hz. The channel separation was 39 dB through the midrange and exceeded 25 dB from 30 to 15,000 Hz. The frequency response of the AM tuner section was down 6 dB at 70 and 2,400 Hz.

**Comment.** In almost every respect, the Toshiba SA-2500 comfortably surpassed its
specifications, which were already better than one would normally expect to find in a $250 receiver. In fact, we would consider it to be an exceptional product in its price class. Its sound matched that of other components costing many times its price—which came as no surprise, since it had already matched many of them just as easily on the test bench. Apparently the output stages are protected by fuses rather than current-limiting circuits, and this gives the receiver an impressive short-term power output into 2-ohm loads of about 100 watts per channel.

The LED indicators were completely functional, and we especially appreciated the precision with which the center-of-channel light came on; only at the exactly correct tuning adjustment did it give its "OK" signal. We would expect that the average owner, using only this light as a tuning guide, would realize very nearly the same very low FM distortion that we measured in our tests even though we had a distortion meter to set the tuning. The same cannot be said for most tuning indicators, either meters or LEDs, that we have used.

Some listeners might miss the possibility of interrupting the signal path between the preamplifier and power amplifier, or the lack of any switched a.c. outlets, but they might remind themselves that this is a very inexpensive receiver by 1981 standards. Rather than pick nits, we would prefer to give the unit its due: the Toshiba SA-2500 is an outstanding value in every respect, as attractive as it is functional, and with a real (that is, audible) performance that cannot be surpassed (except for power) at less than several times its price.

Circle 142 on reader service card

The Nakamichi 1000ZXL is certainly the most expensive and, possibly, the most sophisticated cassette deck we have yet encountered. Its $3,800 price obviously puts it well beyond the reach of most readers, but the combination of features, design considerations, and performance embodied in it so nearly defines the current "state of the art" that it must be of considerable interest to all serious home recordists since state-of-the-art features have a tendency to filter down, with time, to less expensive units.

The Crystalloy record and playback heads of the 1000ZXL are completely separate (each has its own alignment adjustments), but they have been so miniaturized that both will fit into the standard head opening in the cassette shell. Each has an optimum "gap width" for its function, and both have been "slotted," using a photoetching process, to ensure that any head wear will remain even. Additionally, the playback head is fitted with a device that pushes the cassette's built-in pressure pad out of the way in order to reduce modulation noise.

Four servo-controlled d.c. motors are used in the transport. One drives the dual capstans, which have slightly different diameters and flywheel masses so they do not reinforce each other's rotational wow-and-flutter frequencies. Another turns the supply and takeup hubs. The third replaces the solenoids normally used in a "full-logic-controlled" transport, while the fourth turns a cam that automatically adjusts the azimuth (perpendicularity) of the record head to match that of the playback head.

Digital logic—a microprocessor "chip"—is used extensively for control and adjustment operations in the 1000ZXL. Pressing the RUN button when entering the record mode, for example, initiates a sequence in which the record-head azimuth is adjusted, followed by individual automatic optimization for each channel of the record bias, equalization, and tape sensitivity. The tape is then rewound, and an infrasonic code is recorded to indicate the proper playback-equalization and noise-reduction settings. (Manual playback-equalization and noise-reduction switches are provided for use with cassettes recorded on other decks.) The user can store the optimized settings in any of four memories for future use with that kind of tape. We found that the entire process took between 30 and 40 seconds, but this time can be reduced considerably when using one of the four "stored" settings by pressing the AZIMUTH button (which optimizes azimuth only) instead of RUN.

In addition to the ABLE (azimuth, bias, level, equalization) sequence just described, the 1000ZXL has a sophisticated RAMM (random-access music memory) that can digitally encode the tape with up to fifteen identifying selection numbers. This can be

(Continued on page 34)
An unprecedented opportunity in record collecting from The Franklin Mint Record Society

THE GREATEST RECORDINGS OF THE WORLD’S GREAT CONDUCTORS

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In the world of music, the great conductors reign supreme. Brilliantly interpreting the music of the masters. Providing their creative genius to musicians and performers. And offering untold joy and inspiration to their audiences. Each maestro brings his own unique style, his own special magic to the performance of the world’s most glorious and immortal works of music.

Over the years, today’s great conductors have recorded virtually all of the masterpieces of the world’s great composers. And now the very finest of all these recordings have been selected with the approval of the individual conductors themselves—and these superb works will comprise “The Great Conductors Collection.” The first edition of this collection will be a special Signature Edition. It will be strictly limited by number. And every album in this limited edition will be personally signed by one of the fifteen conductors represented.

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conducting the New York Philharmonic, with Isaac Stern as soloist, in a landmark performance of the Brahms Violin Concerto. Seiji Ozawa and the Boston Symphony Orchestra in a performance of Ravel's masterpiece "Daphnis et Chloé". Sir Georg Solti's masterful reading of Beethoven's Ninth Symphony with the Chicago Symphony Orchestra. Lorin Maazel conducting and appearing as the violin soloist in Mozart's A Major and G Major Violin Concertos. And other performances that feature artists like Pinchas Zukerman, Vladimir Ashkenazy, Rudolf Serkin and Sviatoslav Richter.

A private library of monumental recordings—autographed by each conductor. To be enjoyed by every member of the family and kept permanently as the cornerstone of your music library.

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The records are exceptional for both their clarity and tonal quality. A superior vinyl material, containing its own anti-static element, is used in the production of these records. This exclusive vinyl material, together with the process by which the pressing is made, results in a record that is more rigid, durable and resistant to dust. A record that has true fidelity, clearer sound quality and a long life.

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The Signature Edition of "The Great Conductors Collection" will not be sold in record stores. It can be obtained only by subscription. Furthermore, each conductor will sign only 5,000 of his albums—so the edition will be permanently limited.

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Please enter my subscription for the Signature Edition of "The Great Conductors Collection," consisting of 15 library albums, each containing 5 proof-quality records—personally hand-signed by the conductor represented. The issue price for each record is $9.75 plus $1.25 for packaging, shipping and handling.

Signature
Mr. Mrs... Miss

Address
City
State, Zip

NOTE: Each conductor will sign only 5,000 of his own albums. Thus, the Signature Edition is strictly limited. If the limit is reached by the time your application is received, it must be refused.

CIRCLE NO. 25 ON READER SERVICE CARD
done either automatically or manually, and the machine can thus be set up to play (or repeat) the selections in any desired order—up to thirty commands. The infrasonic code is read bidirectionally, and—testers of d.c. amplifiers worry—it is entirely filtered from the deck's output. While the description of all this "computer" circuitry may appear complex, an illuminated display shows the action and status at each step, simplifying operation.

To the right of the coding display is a four-digit electronic counter and a pair of fifty-six-point intensity record/playback level indicators calibrated from -40 to +10 dB, with the 0-dB point representing Dolby level (200 nanowebers/meter). Because of the unusually large number of elements (twelve or fourteen is customary), the resolution available is akin to that of an analog meter, though the fast response and lack of overshoot is possible only with electronic displays. A meter switch selects either peak-reading or quasi VU-reading characteristics, and in both cases a second, brightly illuminated "cursor" is provided to show the maximum signal value.

Cassettes are inserted, openings downward, into slides behind the transparent cassette-well door, and illumination is provided to read the labels and see how much tape remains on a side. The door is removable for routine head cleaning.

Seven level controls of the slider type are used for separate left and right inputs and outputs and for three microphone inputs—left, right, and "blend" (center-channel). The pause, record, rewind, fast-forward, and play buttons are also large, lighted, and illuminated. Switches are provided for the external timer (record, off, play), memory (stop, off, play), filter (infrasonic, off, multiplex, or both infrasonic and multiplex) selection, and tape or source monitoring. Similar switches handle manual playback equalization (70 or 120 microseconds), indicator characteristics, and a Dolby-level test tone.

Less familiar are switches that shift the entire bias range covered by the computer-controlled adjustments by an additional 12.5 per cent to accommodate any future tape developments and a noise-reduction switch that allows the user not only to turn the built-in Dolby-B circuit on and off but to choose an external noise-reduction system instead. There is no "tape-selector" switch, since the microprocessor automatically handles the requirements of ferric, CrO₂-type, and metal formulations, but a pitch control with a ±6 per cent range is provided to correct off-speed tapes.

The rear panel of the Nakamichi 1000ZXL contains twelve gold-plated phono jacks for normal inputs and outputs and for connection of an external noise-reduction system. Two DIN-type connectors are provided for accessory remote control of the transport and the RAMM circuits, and a small panel gives access to the two AA 1.5 volt cells used to keep the microprocessor "alive" when the deck is turned off. Overall, the deck measures 20⅞ x 10⅞ x 12⅛ inches in its rosewood case, though it can be removed for mounting in a 19-inch rack. The weight of the Nakamichi 1000ZXL is approximately 41 pounds.

At the usual measuring level (20 dB below the 0-dB indication), Nakamichi specifies a frequency-response deviation of ±0.5 dB from 20 Hz to 20 kHz—the highest specification we have ever seen on a cassette deck and so close to the limits of our automatic test-recording equipment that we had to double-check using spot frequency measurements. Our spot checks, moreover, put the -0.5-dB points at 17 Hz and 24 kHz, using the ferrie EX-II, with -3-dB points at 13 Hz and 26 kHz. It is hard to conceive of any meaningful improvement on such a response.

Third-harmonic distortion at an indicated 0 dB was 0.39, 0.46, and 0.38 per cent for the Nakamichi ZX (metal), SX (CrO₂-type), and EX-II (ferric) tapes. The headroom (the amount of additional output required to increase the distortion to the 3 per cent point) was 8.8, 6.3, and 7.9 dB, respectively. Referred to the 3 per cent distortion level, the unweighted signal-to-noise ratios, without benefit of Dolby, were 55, 53.3, and 51 dB; adding a standard IEC A-weighting curve and Dolby-B processing improved these figures to 68.5, 67.5, and 65.6 dB. Using the Memorex Metal IV raised the A-weighted S/N (with Dolby) to 70.3 dB.

Wow and flutter measured 0.05 per cent (DIN-B) and 0.038 per cent (weighted rms) with our Teac MTT-111 test tape, increasing just slightly to 0.055 (DIN-B) and 0.042 (rms) when measured on an overall record/rewind/repay basis. The Dolby calibration was within 0.5 dB, and frequency-response variations between Dolby and non-Dolby operation were inside a ±1-dB tolerance throughout the audio range.

A 1-kHz line-level input signal of 0.05 volt (50 milliwatts) was sufficient to produce a 0-dB indication, at which point the output level was 0.95 volt. The combined microphonic sensitivity was 0.171 millivolt. Sound of a 100-Hz tone recorded at +10 dB on metal tape exceeded 70 dB, and at 1,000 Hz (the usual measurement point) it increased to the approximate 80-dB limit of our wave analyzer. Fast-forward and rewound tapes are unusable, for the microscopic marks were 50 and 45 seconds, respectively.

Laboratory Measurements. Our sample of the 1000ZXL was supplied with the actual tapes used in the factory setup—namely, Nakamichi EX-II (ferric), SX (CrO₂-equivalent), and ZX (metal)—so we used these as the basis for our primary evaluation. At the same time, the ease with which the ABLE system can be used encouraged experimentation with a number of different popular brands from TDK, Maxell, BASF, 3M, and Memorex. Since TDK AD (ferric) and BASF Professional II (CrO₂) in general tend to show a rising high-frequency response and a slightly lower overall sensitivity, we were particularly pleased that the Nakamichi computer system produced curves from them that could not be distinguished from those of our reference tapes. And, when it came to the metal tape, we achieved not only the same response, but an actual improvement of nearly 2 dB with the new Memorex Metal IV.

Playback frequency response was checked with Teac MTT-216 (120-microsecond) and MTT-316 (70-microsecond) calibration tapes. Interestingly, while most Nakamichi decks we have tested have exhibited a (3.5 to 4.5 dB) rise at the high-end limit (14 kHz) of these test tapes, the 1000ZXL was extremely flat. (The slight bass-end rise is a characteristic of full-track test tapes when played on a stereo deck and, as the overall response curves show, not a property of the Nakamichi recorder.)

Comment. Given these outstanding measurements, it should come as no surprise that the 1000ZXL was able to make virtually perfect copies of any musical material (FM, disc, or master tape) we checked it with. With high-level FM interstation hiss could we hear the high-frequency advantage of metal tape, though it would obviously be the choice for live recording. While we did not test the deck in this latter application, the outstanding quietness and high overload margins of its microphone circuitry were noted.

Any recorder with as many features and options as this one obviously takes a little getting used to, but once we learned our way around it, the 1000ZXL was remarkably easy to use. The electronic counter was one of the tapes. Our only disappointment is that, having tested it, we must now return it to the manufacturer.

Circle 143 on reader service card

(Continued on page 38)
How to master tape.

Eventually, you reach a point with your tape recording system where you realize you just can't make the kind of quality recordings you want. Even though your equipment may be the very finest. Because despite Dolby, the tape still has too much noise. It doesn't give you enough headroom. And its dynamic range - the range of volume that makes music sound alive and real - is just too restricted.

If you've reached that point, you're ready for the dbx Recording Technology Series. Noise reduction systems that eliminate tape hiss and allow you to record with a quality equal to studio master tapes.

With a dbx Recording Technology Series Model 224 or 222, noise is reduced by 30 dB across the entire frequency range. You get 10 dB more headroom. You can even make live recordings with 80 dB or more of dynamic range. Remarkably close to a live performance.

And there's one final touch. The dbx Recording Technology Series includes a built-in dbx Disc Decoder that lets you play the revolutionary dbx Discs and Digital dbx Discs, the world's first Full Dynamic Range Recordings.

See your authorized dbx retailer for a demonstration of the dbx Model 224 and 222 and learn which is best suited for your system.

Short of buying your own recording studio, it's the only way to master tape.

Camel Lights.
Now in a new pack.
Same low tar,
same Camel taste.
The Denon DP-33F is a two-speed direct-drive record player with complete front-panel control of tone-arm operation. The lateral position of the tone arm can be shifted (by means of a servomotor) over its full playing area with a front-panel knob. In addition there is full cueing, start/stop control, and adjustment of the antiskating torque from the front—and all with the dust cover lowered.

The cast-aluminum platter of the Denon DP-33F, which together with its 1/4-inch-thick rubber mat weighs 3 1/2 pounds, is driven by an a.c. direct-drive motor whose speed (33 1/3 or 45 rpm) is controlled by a quartz-crystal oscillator. The inside of the platter rim has a magnetic coating containing recordings which are sensed by a pickup head (similar to the playback head of a tape deck) as the platter turns. The resulting electrical impulses provide rotational-speed feedback to the servo system that controls the turntable operation.

The operating speeds are not adjustable but are maintained within 0.002 per cent of their nominal values by the quartz oscillator. Stroboscope markings are cast into the bottom of the platter rim and are visible from the front through a mirror system. A single set of markings suffices for both speeds, since they are illuminated by a light controlled by the same crystal oscillator that serves as a reference for the turntable rotation.

The tone arm of the DP-33F is a conventional S-shaped tubular pivoted arm whose threaded counterweight carries the tracking-force scale (calibrated at 0.1-gram intervals from 0 to 2.5 grams). The arm has a standard four-pin plug-in shell containing a rubber insert against which the cartridge is mounted, presumably to help damp resonances in the cartridge/shell system.

The principal difference between the DP-33F and some other high-quality record players is its servo-driven tone arm. This is not a feedback control system, but rather a motor drive that enables the user to position the arm anywhere on the record surface by turning a small knob on the sloping control panel of the record player. The same control initiates the playing cycle when it is pressed down. Another electronic control button raises and lowers the tone arm and a knob controls the antiskating torque, making the arm fully controllable with the transparent dust cover lowered.

The power switch of the DP-33F is at the left of the panel, and next to it is a slim rectangular button that selects either 33 1/3- or 45-rpm operation. To the right of the speed selector is a small antiskating knob calibrated from 0 to 3 grams.

Much of the normal operation of the record player is handled by a small skirted knob marked LOCATE/START. It has calibrations marked 30 and 17 (centimeters, denoting the diameters of 12- and 7-inch records). With a record on the turntable, the knob is set to the appropriate diameter and momentarily pressed down. This causes the arm to move in to the selected diameter and stop. A couple of seconds later the motor starts and the arm descends to play the record. To move the arm laterally at any time, one merely presses the button (which raises the arm from the record) and turns the knob until the pickup is over the desired point. The response of the arm to the knob rotation is very rapid over most of the adjustment range, but it slows markedly as one approaches either the 30- or the 17-cm calibrated diameter. When the arm has been cued, releasing the control allows it to descend at that point. At the end of play, the arm returns to its rest and the motor shuts off. Fully manual operation is also possible, since lifting the arm from its rest and moving it toward the platter will start the motor.

Engaging the REPEAT button causes the record to be replayed indefinitely, starting from the diameter for which the LOCATE knob is set. Pressing a similar LIFTER button raises the arm slowly, and releasing it from its lazing position lowers the pickup smoothly to the record surface. The remaining control is a STOP button, which interrupts the playing cycle at any time and returns the arm to its rest.

The Denon DP-33F is finished, for the most part, in satin silver, with a black control panel and a clear plastic cover that remains open at any angle. It is mounted on softly sprung feet for isolation from mechanical and acoustic vibrations. With the cover closed, it is 17 3/4 inches wide, 15 5/16 inches deep, and 5 1/2 inches high. It weighs 21 1/2 pounds. Price: $395.

Laboratory Measurements. The Denon DP-33F was tested with a Shure M97HE cartridge installed in its arm. The cartridge was operated with an effective force of 1.25 grams. The capacitance to ground of the signal cables and arm wiring was 81 to 89 picofarads, and their interchannel capacitance was 4 picofarads. With the arm balanced correctly, the actual vertical force was exactly equal to the setting of the force scale. The tracking error was also very low, less than 0.25 degree per inch for radii of 2.5 to 6 inches, with zero tracking error...
There was absolutely no detectable lateral

eter, some 11.5 seconds were required for
onds elapsed before playing started. The to-
playing to resume.

en from its 30-cm diameter to its 17-cm diam-
turntables. When we caused the arm to slew
what faster than that of most automatic
al start-up time of 8.5 seconds was some-
was pressed. Since the motor turns on only
the record's lead-in groove after the control

seconds were required for the arm to reach
silent both electrically and mechanically.

The arm lift raised the pickup in less than
an unnecessary inconvenience. It
tends, I think, to discourage the lowering of
arm, or even to turn a record player on or

dust cover to cue a record, raise or lower the
tridge-mounting surface in the headshell, or

with the possible sonic effects of its soft,

heavy rubber mat).

I have long felt that the need to lift the
dust cover to cue a record, raise or lower the
arm, or even to turn a record player on or
off is an unnecessary inconvenience. It
tends, I think, to discourage the lowering of
the cover while playing records, defeating
its functional hygienic purpose (analogous
is the manner in which poorly designed, un-
comfortable seat belts in many cars have
discouraged people from using them). In
addition, a raised dust cover renders any
turntable far more susceptible to acoustic
feedback. Gradually, record-player manu-
ufacturers have made the major operating
controls accessible at the front of their
products and outside the covered area.
Nevertheless, until recently very few had
their cueing (arm-lift) controls so accessible,
needing much of the advantage of hav-
ing any of the other controls at hand. And
anyone wishing to play specific selections
within a record rather than the entire disc
was almost always limited to manual tone-
arm cueing.

The Denon DP-33F answers these objec-
tions very neatly. Of the possible operating
actions that could be applied to a record
player, only the stylus-force adjustment re-
mains inaccessible when the cover is low-
ced. To compensate for that minor lack,
the unit is the only player with a truly accu-
rate and effective antiskating adjustment
that is usable while a record is being played
and with the cover down. The arm LOCATE
function, which seems a trifle strange when
first used, is really simple, smooth, and
quite accurate.

The Denon DP-33F, then, earns high
marks for total record-player performance,
especially when the often neglected human-
eering factors are included. All of this,
combined with Denon's traditional quality,
makes this a unique and desirable product
at a reasonable price.

Circle 144 on reader service card
### Going on Record

By James Goodfriend

**THE JURY IS ALWAYS OUT**

One wonders sometimes how long it takes for posterity to make up its mind. This year marks the three-hundredth anniversary of the birth of Georg Philipp Telemann and we still have no very clear picture of the man, much less any definitive sort of assessment of his accomplishments.

True, listings of recordings of Telemann's music now take up nearly four full columns in the current catalog (that's a whole column more than Rachmaninoff and only a little less than Schumann), but our knowledge of the extent of his music is still woefully incomplete. Three hundred years, and we still have no complete catalog of the man's music. Three hundred years, and we still have only a single, preliminary, biographical study. Three hundred years, and still no consensus on how to rank him.

Far be it from me to try to settle the matter here. Telemann was not one of the rare great geniuses of music—that much I know—but the question of where to place him in that worthy middle rank that comprises most of the familiar compositional names remains a bigger question than it floats tantalizingly in front of me just now, and it concerns Telemann only as a convenient example. What is this "posterity" we call on for ultimate value judgments? It is, it seems to me, largely an accident or an assemblage of accidents. It's different for the musical geniuses, for there is almost always one around to recognize the other. Schumann, after Schubert's death, recognized him for the genius he was and let the world know. Mozart and Haydn well understood each other's quality and did not hesitate to pass on their understanding to others. Beethoven was a devotee of Bach's Well-Tempered Clavier and voiced the opinion that Handel was the greatest composer of them all.

But what of all those other composers? What accounts for the fact, for example, that Vivaldi is so much better known and better thought of today than, say, Heinrich von Biber? Vivaldi, well known though he was in his lifetime, died far from home and was promptly forgotten. Could his reputation today rest on the fact that when Bach got interested in the concerto form he transcribed a number of Vivaldi's works as useful examples, and, as the Bach revival and investigation proceeded, those pieces came to light? And on the fact that Vivaldi's manuscripts were centrally and conveniently located in and around Venice? And that the nature of his compositional work (the instrumental part of it, at least) offered a clear and straightforward musicalological project? And that most of the music is relatively lightweight and easy to play? Biber was far more profound composer, but much of his music is difficult and recordable. It is also far more various (no six hundred concertos) and the manuscripts are scattered all over Central and Eastern Europe.

And Bach, if he even knew the music, found nothing there he wanted to develop (though Biber anticipated him in writing a work for unaccompanied violin). Vivaldi enjoys a big reputation today because his music is known and heard. Would Biber's small reputation be bigger if we knew more of him? Krysztof Penderecki once mentioned to me that he didn't think enough time had passed to establish a valid estimation of Mahler. Has enough time passed for Brahms (1833-1897)? You might think so, but one of Brahms' major biographers felt he had to apologize for the Double Concerto, and there are professional critics and musicians around today who place him far lower on the scale than you might imagine. The same goes for Dvořák. When we get into the twentieth century, virtually every reputation is subject to the most amazing fluctuations; it all depends on who you want to believe.

The truth is that posterity is far from fair and impartial. Its judgments are filled with irrational enthusiasms and hates, accidents, political and social biases, snobberies and inverted snobberies, things happening or not happening for all the wrong reasons. It is, in fact, very much like life, although the composer is no longer around to fight his own battles, enjoy his triumphs, bewail his failures and defeats. The name and the music live after the man, but they are buffeted by the same irrational forces. It's something for a composer to think about. The jury is always out; the final verdict, as Kafka might have said, may never come.
You've spent a fair amount of your hard-earned money on audio equipment. And yet, no matter where you put your speakers or how much you "process" the signal with equalizers, expanders and enhancers, the stereo in your living room continues to sound like "a stereo in your living room".

If your search for sonic realism has left you somewhat disillusioned, you might take solace in the knowledge that your brain is functioning correctly. You see, singing in the shower sounds distinctly unlike singing outdoors because the ways in which sound reflects from nearby surfaces and the varying amounts of time these reflections take to reach your ears give your brain vital clues about your acoustic environment. It is precisely this psychoacoustic principle that makes it difficult for conventional stereo to create believable sonic illusions in your living room.

And it is precisely this principle which makes the ADS 10 Acoustic Dimension Synthesizer unique. Using sophisticated digital delay technology, the ADS 10 recreates (through a pair of rear-channel speakers) the ambient sound field which surrounds the listener in any real space. No other product can so convincingly transport you from your home to the musical environment of your choice - any place from an intimate club to an awe-inspiring cathedral. And it can do so with any conventional stereo program source, not to mention older monaural recordings.

If you would like more information on what experts consider the most advanced, flexible and musical digital delay system ever made, write to ADS, Dept. SR2, or call toll free 1-800-824-7888 (California 1-800-852-7777) and ask for Operator 483. Or better yet, take your favorite records to your ADS dealer and let him demonstrate how the ADS 10 can recreate the live musical experience in your home.
For hi-fi manufacturers, the Consumer Electronics Shows provide both a marketplace in which to sell their wares and a forum at which to discuss how best to do so. The attendees at the CES are the manufacturers' personnel, the sales representatives, dealers both large and small, and trade- and consumer-press journalists. The shows are, for many manufacturers, the first step in bringing new products to consumers.

Over the years the hi-fi segment of the consumer electronics industry has been playing a more and more significant role in the shows. This led indirectly to the absorption of the old IHF (Institute of High Fidelity) by the EIA (Electronics Industries Association), the organization that produces the shows. But it also led, perhaps inevitably, to conflicts concerning both the timing and the location of the shows. The result is that there are now two major Consumer Electronics Shows each year—Las Vegas in January, Chicago in June. There was considerable evidence at the January CES in Las Vegas that audio manufacturers are now chafing under the economic burden imposed by the two shows, particularly since neither of them dovetails very well with the timing they prefer for new-product introductions.

The cost to Stereo Review of shipping me and my colleagues out to cover and report on these shows is a comparatively small one, but I must confess that I do not look forward to the time I spend each year in Las Vegas, a cultural wasteland surrounded by a geological one. This year, in fact, dust and other air pollutants (not hotel fires) were so bad they drove me and many other CES visitors home early. Manufacturers, of course, have to deal not only with the physical discomforts but with the enormous costs of mounting an exhibit. For some, these reach hundreds of thousands of dollars for the four-day show. A few of the larger manufacturers (such as Pioneer and Sony) took their courage in their hands this year and decided not to participate. Others showed up grudgingly, afraid not to be there, but I heard constant complaints about the show's timing, about the fact that there are two very expensive shows when one would serve, and, of course, about the geographic location.

This year's winter CES took place in the second week of January, and, as in previous years, the products shown included almost every category of home electronic equipment from digital watches to telephones to video and on, of course, to hi-fi components. Although it might not be apparent from the length of the article that follows, the majority of the manufacturers were holding back most of their new products for the June show. And so, as in our last CES report, our specialist reporters operating in each product area have picked out the new and the trend-setting, ignoring the not-so-new and run-of-the-mill in the interest of space. New items that might have escaped our reporters' attentions will be covered in upcoming issues.

If you want further information about any of the products mentioned, please write to the manufacturer, not to us. However, if you need an address, we'll be delighted to give you that: send a stamped, self-addressed envelope to Stereo Review, Dept. CES, One Park Avenue, New York, N.Y. 10016. —Larry Klein
WITH a few significant exceptions, surveying the tape field at the Winter CES in Las Vegas was about as exciting as romancing a slot machine on which someone had just scored the big jackpot. Reacting to the economic slowdown, manufacturers seemed primarily interested in restocking dealers' shelves with their current line of products, deferring most significant new introductions until the June show in Chicago.

There were some interesting developments, however. In the area of blank tape, Memorex introduced three premium formulations at CES: MRX I (ferric), MRX HD II (CrO₂ equivalent), and MRX Metal IV, which is said to provide not only the high-frequency output for which metal is noted, but significantly improved low-end response as well. All have been packaged in an improved shell. Maxell showed its new XL1-S and XLII-S formulations which improve the dynamic range of the ferric UD XL-I and CrO₂-type UD XL-II by 1.5 and 2 dB, respectively. A relatively new entrant in the field, RKO Tape Corp., showed both audio and video cassettes. And in a true meeting of the giants, DuPont and Philips have entered into a joint venture to produce both audio and video tapes for the European and American markets.

Mobile Fidelity, long known for high-quality discs, now has a line of premium prerecorded cassettes using BASF chrome tape. And dbx introduced its own dbx-encoded prerecorded cassettes ($20) at the show, demonstrating the extraordinary dynamic range that careful use of a 2:1 compression/expansion system can achieve. While Teac has been the principal source for "built-in" recorder dbx processors in the past, Technics has now incorporated the system (along with Dolby-B circuits) into its new $450 M270X, which boasts an astonishing 92-dB signal-to-noise ratio using CrO₂ tape with dbx. Yamaha also announced a dbx-equipped cassette deck.

The major new introduction on the noise-reduction front was the long-awaited Dolby-C. While the normal Dolby-B circuitry is designed to provide an 8- to 10-dB reduction in perceived tape hiss, Dolby-C gives a 20-dB improvement and extends the processing downward in frequency by about two octaves. Essentially a modified version of two Dolby-B processors working in tandem, Dolby-C has been designed with care to avoid excessive high-frequency boost during the record cycle and to prevent audible side effects. It is expected that the higher parts cost of incorporating Dolby-C, as well as the demands it places on the tape deck to use inherently low-noise circuitry, will restrict its initial implementation primarily to top-of-the-line machines.

Among the first decks to incorporate Dolby-C is the JVC DD-9 ($599), which also features computerized bias, equalization, and tape-sensitivity adjustments, three-head design, and a wow-and-flutter spec of 0.019 per cent (w rms). Date of availability was not announced at show time, but formal introduction at the June CES seems probable given the fact that Mitsubishi, Hitachi, and Nakamichi have also actively entered the Dolby-C derby (see the February 1981 issue's report on the Tokyo Audio Fair). An old friend of tape, Advent, has rejoined the ranks of cassette producers with its new moderately priced ($350) Model 203; it too will include Dolby-C.

Another tantalizing product previewed at the show was Willi Studer's first cassette deck, the Revox B-710. Expected to be priced in the $1,800 range, it incorporates a heavy-duty, dual-direct-drive transport mechanism built as much with professional applications in mind as with those of the home user. Microprocessor logic controls and all the high-performance fixin's will make it an immediate top contender in the high-price market.

Ingenuity awards should go both to Optonica and to KLH. The latter introduced a battery-operated cassette player (the KLH Solo, $199) that turns into an FM radio when you plug in a cassette-sized tuning module instead of a regular cassette. The stereo earphone cables are also the FM antenna! And for those who want not only to play cassettes, but to record and even duplicate them, the $550 Optonica RT-6605 is the obvious answer. While many cassette decks offer separate record and playback heads, the RT-6605 houses two separate electronic and transport systems in the same machine. On one you play tapes, on the other you record tapes, and if you use both you can duplicate.

While more conventional in appearance and function, the Sansui D-550M ($520) offers a new approach to controlling modulation noise-grittiness "behind" the signal that, unlike ordinary hiss, increases in intensity as the desired signal increases. In
Among the new receivers which are making their appearance, the principal trends are toward slimmer and more compact designs (bridging the gap between full-size and mini- or micro-components); the use of digital frequency-synthesis tuning circuits in all but the lowest-price models; and dynamic-bias output circuits. Digital synthesis tuning (which shouldn’t be confused with the simple addition of a digital-frequency display to a conventional manual tuning circuit) offers the assurance of precise tuning to each station’s broadcast frequency and the convenience of instantaneous tuning to several favorite stations which you “program” into the tuner’s digital memory. Dynamic-bias output stages, often described by some variant on “class-A” terminology, provide the virtually distortion-free performance of class-A operation at low signal levels and automatically move into a much more efficient A-B mode of operation at high signal levels in order to minimize the generation of unwanted heat in the output transistors.

For instance, Technics has filled out its receiver line with three new models, all incorporating digital synthesis tuning with seven memory presets. They range from the SA-626 ($570, 65 W/ch) through the SA-424 ($420, 45 W/ch) to the SA-222 ($310, 30W/ch), each rated for 8 ohms. The two larger models employ Technics’ “New Class A” sliding-bias output circuits. Akai has also added two moderate-cost receivers to its line, the AA-R31 ($350, 38W/ch) and the AA-R21 ($300 26W/ch); both feature a digital display with manual tuning aided by a “servo lock” to home in on the center of the FM broadcast channel. And Nikko has replaced three receivers in its line with newly designed models ranging in rated output from 35 to 65 W/ch, each featuring digital frequency-synthesis tuning.

Onkyo’s new entries for 1981 include two “full-size” receivers featuring digital synthesis tuning with six presets, LED power meters, and an uncluttered front panel with subsidiary controls under a flip-down panel; the RX-6000 ($540) is rated at 70 W/ch and the TX-4000 ($420) at 45. (While these ratings are given only for 8 ohms, pre-
vious Onkyo receivers in this series have performed well at 4 ohms too.) If you prefer a compact model with simplified controls, Onkyo offers the low-profile TX-30 ($420), a 40-watt step-up version of last year's popular TX-20; its digital synthesis tuning has provision for seven FM and two AM preset stations, while its d.c. amplifier is stabilized by Onkyo's "super-servo" control circuit. And for the listener who wants to make prerecorded cassettes and off-the-air recordings his or her main program source, Onkyo suggests the new CX-70 "Cassette Receiver," combining a 20-watt stereo receiver and a metal-ready cassette deck with Dolby-B noise reduction in a single convenient $400 package.

Also showing new receiver models were Hitachi (SR-2000, 25 W/ch, $199.95), Scott (four models, 20 to 65 W/ch, $229.95 to $459.95), Sansui (six models, 40 to 160 W/ch, $400 to $1,130), and Sherwood (four models, 25 to 60 W/ch, $215.95 to $399.95).

Not all receivers are designed in Japan, of course. Harman Kardon's slim HK740 ($350, 30 W/ch) is made in Japan but its design reflects the influence of H-K's U.S. officials and consultants. It employs only modest amounts of negative feedback, a discrete transistor (rather than IC) phono-preamp stage, and a regulated power supply with toroidal transformer. Tandberg of Norway's 3030 receiver, long and low in profile, avoids digital frequency-synthesis circuitry but still manages to offer convenient pushbutton tuning of favorite stations by means of varactor diodes (for more on this see "Tuners" below). And Advent's U.S.-designed Model 350 receiver ($600), which has been shown before, is evidently now slated for national distribution. It is unusually simple and functional in appearance, with a rotary-vernier tuning dial. Its power-amplifier stage is rated at 50 W/ch into 8 ohms or 70 W/ch into 4 ohms, with 2 dB of IHF dynamic headroom for musical transients, and it will drive a 2-ohm load impedance without difficulty.

Amplifiers

Welcome trends in amplifier design include the provision of high power in progressively smaller and more efficient packages, better interfacing with the impedances found in real loudspeakers, and the inclusion of moving-coil-cartridge inputs in many preamps and integrated amplifiers. As digitally mastered and dbx-encoded recordings make the full dynamic range of live music available for home listening, the amplifier's ability to pass uncompressed transients without distortion is attracting more attention. Apt's new "Power-Tracking" integrated amplifier is a striking move in this direction: rated at 80 W/ch into 8 ohms or 70 W/ch into 4 ohms, with 2 dB of IHF dynamic headroom for musical transients, and it will drive a 2-ohm load impedance without difficulty.

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Apt integrated amplifier
Mitsubishi DA-P30 preamplifier
Carver C-1 preamplifier
Soundcraftsmen LA-2502 power amplifier
Kenwood KA-900 integrated amplifier
Yamaha B-6 power amplifier

"Hey, Mr. Vogel! Remember me? The Chicago show last June? You told me if Reagan won you'd place one hell of an order with me! . . ."
experimental prototype of next year's C-1.5X, a 750-watt model about the size and weight of conventional 100-watt amplifiers. This approach to high power has been adapted by Yamaha in their new $950 B-6 power amp, a small (7 inches high by a foot square) 19-pound truncated black pyramid which puts out a rated power of 200 watts per channel into 8 ohms. This "X" circuitry, as Yamaha calls it, is also employed in three new integrated amplifiers spaced at 1-dB increments in power: the A-1060 (120 W/ch, price not available), the A-960 (100 W/ch, $480), and the A-760 (80 W/ch, $390). The power supply delivers high voltages to the output transistors when high power is needed for reproduction of musical peaks and heat-conserving low voltages when the music is soft.

Soundcraftsmen's "class H" design uses conventional transformer power supplies to deliver voltage levels as the music requires. The LA-2502 power amp ($649) is rated to deliver 125 W/ch at 8 ohms and 190 W/ch at 4 ohms, with 2 dB of IHF dynamic headroom yielding a short-term output of 300 W/ch into 4 ohms. The RA-7502 ($949) produces 3 dB more power: 250 W/ch at 8 ohms, 375 W/ch at 4 ohms, and 750 watts in mono bridged operation, again with 2 dB of IHF headroom. Each of these Soundcraftsmen models contains an "auto-buffer" circuit that permits safe operation into 2-ohm impedances without current-limiting or protection-circuit trigger-in. It also removes high power instantly in case of short circuits, making the amp safe from abuse or accidents.

MTI is manufacturing two high-headroom power amplifiers employing "cross-feed" power supplies in which one channel draws current from the positive-polarity supply while the other channel draws from the negative supply, making the most efficient use of the power supply's capacity. The MTI 545 ($1,400) is rated at 120 watts per channel with 4.5 dB of IHF dynamic headroom, while the MTI 245 ($600) is rated at 40 W/ch with 4 dB of IHF dynamic headroom.

NAD's first separate power amp is the Model 2140 ($268). Like the existing NAD 3140 integrated amp, the 2140 has 3 dB of IHF dynamic headroom and delivers increased power into low impedances; rated at 40 W/ch, it has a short-term output for musical transients of 80 watts at 8 ohms and over 100 W/ch at 4 and 2 ohms. In the bridged monophonic mode the 2140 is rated for 125 watts continuous and 250 watts short-term into 8 or 4 ohms. Another new power amplifier with substantial headroom and unfettered operation into difficult speaker impedances is the Hafler DH-500: a beefed-up cousin of the excellent DH-200 with twelve power MOSFET output transistors and 40,000 microfarads of power-supply capacitance, it will deliver well over 250 W/ch in stereo (800 watts in the bridged-mono mode). The projected price is $750 factory-wired, about $600 as a kit. Hafler is also introducing a refined version of the company's DH-101 preamp; the DH-110 ($400 wired, $300 kit) will feature precision detented controls, a switchable infrasonic filter, and high-grade parts.

Imported from England, the Mission 777 ($997) uses rechargeable lead-acetate batteries instead of a conventional a.c. power supply for total freedom from hum and power-supply modulation. Ideal power transfer from the amplifier to the loudspeaker would require speaker cables with zero resistance, inductance, and capacitance. In all real wires these parameters depart at least a little from zero, so the cables can have subtle sonic effects. One way to eliminate these effects is to connect a separate wire from the "hot" speaker terminal back to the amplifier's internal feedback circuit, thus enclosing the speaker cable (and the amplifier's own output impedances) within the negative-feedback loop. (Since the feedback wire carries negligible current, its own impedance has no effect on the signal-correcting voltage it transmits.) This is not a new idea, having been described in STEREO REVIEW's sister publication Elettronics World (now Popular Electronics) as far back as November 1970, but it has lately been rediscovered as an alternative to employing special heavy-duty speaker cables or mounting the amplifier very close to the speakers so as to obtain a virtually zero-resistance connection.

Kenwood's version of this idea is called the "Sigma drive," and it appears in three new integrated amplifiers: the KA-1000 ($795, tested in the April issue) rated at 100 W/ch into 8 ohms, the KA-900 ($520) rated at 80, and the KA-800 ($395) rated at 50. The amplifier is connected to the loudspeakers via two sets of wires, conventional speaker cables plus special "sensing" wires that go from the speaker's input terminals back to feedback inputs on the amplifier's rear panel. By comparing the signal at the far end of the speaker cables with the amplifier's main input signal, the feedback circuit corrects any slight error due to the impedance of the speaker cables.

The new Kenwood amplifiers exemplify another trend in circuit design, the use of "two-pole" phase compensation in order to obtain greater amounts of negative feedback (for suppression of distortion) at ultrasonic frequencies. JVC's version of this idea is called "pure NFB" with "dual-lead" compensation. It appears in most of this year's JVC amplifiers, including the new A-X7, a 90-watt model which also uses the "super-A" variable-bias output circuit. (The amplifiers in this series have only a single knob on the front panel; all other control functions are accomplished via slim pushbutton switches.) Tandberg calls its version "9 dB/octave" compensation, and it is used in both the TCA 3002 preamplifier ($1,000) and the TPA 3003 power amp ($1,200). The power amplifier is rated at 150 W/ch into 8 ohms and 250 W/ch into 4 ohms with notably clean recovery from overload. The Tandberg preamp uses no integrated circuits and has a total of 116 transistors in twenty-four stages, there are completely separate moving-coil and moving-magnet phono preamps employing eleven transistors each, with an exceptionally quiet 80-dB S/N specified for the MM input.

On the theory that running audio signals from the circuit board up through wires to front-panel controls and back down to the circuit board can allow low-level noise and hum to be picked up in the wires, SAES's new X-1P preamplifier ($1,000) keeps the audio signals in the board; all of the front-panel controls operate indirectly via digital logic circuitry. SAES has added two new models in its "Hypersonic Class A" series of power amplifiers, the X-15A ($1,150) rated at 150 W/ch and the X-10A ($900) rated...
at 100. In the popular-priced SAE Two line the new P10 power amp ($350) is rated at 100 W/ch; its high-current output stage is said to operate safely into 2 or 4 as well as into 8 ohms. Carver has introduced a $500 preamp, the C-1, containing a revised “sonic holography” stereo-image processor (but without the Peak Unlimiter, Autocorrelator noise reducer, and time delay that are included in the $900 Carver C-4000).

John Kardon has added the $800 HK775 power amp to its successful 700 series; rated at 130 W/ch, it features twin toroidal-transformer power supplies, LED metering, and switchable infrasonic and ultrasonic filters to alter the wideband response which is an H-K trademark. Mitsubishi’s DA-A30 power amplifier ($350), rated at 105 W/ch into 8 ohms with 2 dB of IHF dynamic headroom, uses a “heat pipe” convection-cooling scheme. The companion DA-P30 preamplifier ($450) has a flexible arrangement of three tone controls whose operating ranges can each be adjusted by three “turnover frequency” slider controls. Two integrated amplifiers, the PM700 ($450, 70 W/ch at 8 ohms and 87 W/ch at 4) and the PM500 ($340, 50 W/ch at 8 ohms and 62 W/ch at 4) feature built-in five-band graphic equalizers for still more tonal flexibility. New integrated amplifiers were introduced by Optonica (the SM-9005, $530, rated at 100 W/ch into 8 ohms, with dynamic-bias output circuitry, separate input and recording selectors, and a moving-coil head amp). Onkyo (the A-25, $225, 40 W/ch into 8 ohms), and Nikko (two models with moving-coil pre-amps and power ratings of 65 and 86 W/ch).

Other manufacturers exhibiting integrated amplifiers included Toshiba, Hitachi, Scott, and Sherwood. Sansui had their long-established “Super-Feedforward” circuitry in two new integrated amplifiers (AU-D11, 120 W/ch, $1,000; AU-D9, 95 W/ch, $750), showed their $250 power amp (175 W/ch into 4-ohm loads, $1,949) based on the Studer A68 professional power amp.

While the mass market for hi-fi may have stopped growing, the “high-end” audiophile market evidently hasn’t, as new products continue to flow from small independent manufacturers. Adcom has an FET-input preamp (GFP-1, $350) to go with its successful power amp; Acoustat is marketing a $650 preamp, the model RP-2, with a “supertrack” volume control and separate power supplies for its moving-coil and moving-magnet cartridges; and Rad-Johnson showed its DA-P30 preamp ($2,000) features a “super-shunt” power supply that provides unusually stable current flow in its circuits and unusual freedom from signal modulations in the ground-circuit paths in the amplifier. Finally, Conrad-Johnson specializes in vacuum-tube equipment, and its latest product includes the MV45 45-watt power amp ($700), the 200-W/ch Premier One power amp ($3,850) employing a dozen (!) 6550 output tubes into those cold winter nights, and the $1,585 Premier Two preamp with cascode/cascode tube circuitry.

**Tuners**

Digital frequency-synthesis tuning circuits continue to spread in all but the very lowest price levels, but not everyone is going along with the trend. An avid student of specifications will have noticed that some digital tuners are actually not as refined in performance (especially in areas such as selectivity and signal-to-noise ratio) as their manual-tuned counterparts. This is because digital tuning circuits operate by high-speed switching, and the resulting switching transients spray ultrasonic and radio-frequency interference around neighboring circuits in the tuner. While this interference can be minimized by careful shielding and filtering techniques, complete suppression usually adds considerably to the cost of a digital tuner.

But there has been considerable engineering effort devoted to reducing noise levels of digital-synthesis tuners. Sony’s ST-75 ($450), an FM-only unit that was privately demonstrated to members of the press, has a specified S/N of 87 dB in stereo. A result of new circuit techniques, this performance comes along with those features that are so easy to add in a digital frequency-synthesis tuner: station presets and several types of station scanning.

JVC’s new T-X6 digital frequency-synthesis tuner ($350) incorporates most of its digital circuitry in just two large-scale ICs, minimizing the amount of exposed digital wiring and thus reducing radiated interference within the chassis. As a result, the T-X6 claims a S/N of 83 dB in mono and 78 dB in stereo. The digital frequency display is a fluorescent readout operated from a non-switching “static drive” circuit to eliminate interference from the display itself.

To reduce tuner noise, in Tandberg and Yamaha have chosen an alternate approach to tuning: using “varactor” diodes whose tuning capacitance varies with the applied voltage. In the Yamaha T-760 ($290) five FM and five AM stations can be stored in the digital memory and recalled via front-panel pushbuttons; the output from the memory is then fed to a digital-to-analog converter that produces the precise d.c. voltage corresponding to the desired station. This is fed to a digital-to-analog converter that produces the “digital voltage-synthesis” tuning instead of the usual digital frequency-synthesis. Varactor tuning with provision for eight preset stations is also used in Tandberg’s state-of-the-art Model 3001 tuner ($1,500); it has such remarkable performance specifications as an input sensitivity of 7 dBf (1.2 microvolts) and a S/N of 92 dB in stereo. (A test report appeared in the March 1981 issue.)

It should be noted when comparing tuner S/N specifications that the S/N value de...
pends on the strength of the signal at the antenna terminals in addition to the frequency weighting used. Unfortunately, neither is usually specified in tuner data sheets, making direct comparison of S/N values impossible.

With today's ICs, good tuner performance can be obtained at remarkably low cost. As an example, Onkyo offers the T-25 slim-line digital frequency-synthesis tuner with dual-gate MOSFETs and twelve ICs in a 3-inch-high package for $250; the T-15 manual-tuned model, only $135 list, has servo-lock line tuning. Marantz continues to offer both digital and analog models. The ST 500 Computuner ($400) has quartz-locked frequency synthesis with seven presets each for AM and FM, and it can be tuned in increments of only 50 and 100 kHz rather than in the usual 200-kHz steps. The ST 400 ($315) is manually tuned with servo-lock circuitry for drift-free stability and has a digital frequency display as a bonus.

New tuners were also shown by Sherwood, SAE, Kenwood, Mitsubishi, Scott, and Nikko. Revox's $2,399 B739 tuner is basically a Revox B780 receiver without a phono input or an output stage.

Finally, in addition to showing a new frequency-synthesis tuner of conventional design (Model ST-660, $260), Toshiba announced the development of a “Verbal Announcement Call-Sign Tuning” accessory which will accept and store station call letters that have been verbally commanded via a microphone. When tuning any of the pre-programmed stations, the attached ST-560 tuner will display station frequency and the voice-response module will announce the call letters as memorized. Toshiba's other technology demonstrator was a tuner which displayed and memorized both station frequency and call letters.

It is a truism in the hi-fi business that the simpler and cheaper the system, the broader will be its market. Many more people buy three-piece compacts (a combined turntable/receiver/cassette deck plus two speakers) than are willing to cope with the cost and complexity of separate components. And manufacturers are always looking for ways to appeal to those outside the group of eighteen-to-thirty-four-year-old males who buy most components. This has led to products filling the gap in price and/or convenience between $200 compacts and fully-fledged separate-component systems.

One increasingly popular approach is to sell regular-size components preassembled into a package, complete with a cabinet or rack to house everything. The largest of these rack systems are fully as elaborate, and as expensive, as many separate-component systems. For example, the Kenwood S-8154 ($2,051) comes with two equipment cabinets, each with glass doors and caster feet, that contain a 60-W/ch integrated amp, an AM/FM tuner, a fully automatic single-play turntable, a solenoid-operated metal-compatible cassette deck, storage space for about a hundred records, and two three-way speaker systems. Fisher's ACSM-500 ($2,200), one of six systems they showed, has not only a cassette deck but also a stereo, metal-compatible, Dolby-equipped microcassette deck. The tapes you make on this unit are also playable on a portable stereo microcassette player included in the purchase price. Sansui introduced six rack systems ranging in price from $500 to $2,465.

Bang and Olufsen introduced a new one-piece system, the Beocenter 7000. It sells for $2,000 without loudspeakers; a matching cabinet ($475) houses the 7000 on top with storage space for records and tapes beneath. The 7000, like other B&O products, has a low profile: it is 29 inches wide and less than 4 inches high. Pushbuttons on the top select among phone, tape, tuner, or any of five presettable FM stations. A large red fluorescent display shows which input has been selected as well as displaying the time or (when the tape deck is in use) a four-digit tape-counter reading. A wireless remote control (included) duplicates all input-selection and tape-recorder functions, raises or lowers the volume, and starts or stops the fully automatic turntable. The microprocessor that runs the whole system can also shut off the tape to any chosen tape-counter reading.

The first minicomponents made their appearance in the U.S. almost two years ago, and no one has quite figured out yet how much of a place they will have in the audiofile market. At Las Vegas they appeared in a new guise: they've been fastened together, and a handle has been grafted onto the top of the package. The resulting assembly seems designed to tempt component owners into buying a portable and portable owners into buying components. The Technics SB-F07/SA-C07 system (the numbers designate the speakers and the electronics package, which are available separately) sells for $800 and includes a 30-W/ch power amp, a frequency-synthesis tuner, a solid-state-operated cassette deck, and a separate prepomp with microphone input and mixing facilities. The mix signal can be mixed with any chosen input source. (The latter feature is common in portable systems; apparently people who carry their music around with them like to sing along and/or play disco DJ for their friends.) The Technics system can be operated from an automobile's battery system, although Technics strongly recommends a voltage stabilizer (Model SH-5050, $120) for best results.

While JVC also had a portable minicomponent system (the PC-5, about $600), they introduced a system of non-portfolio minicomponents (no handle on top) as well. JVC's system is baldly designated as the "Mini Component Rack System." Like some others, it borrows many features from its maker's more expensive gear. For $1,300 you get a pair of three-way speaker systems; a 30-W/ch integrated amplifier with variable quas-class-A operation, two speaker outputs, two tape-monitor loops with dubbing facilities, and a mike mixing input; a servo-lock tuner with JVC's Phase-Tracking Loop detector; a two-motor metal-ready tape deck with super-ANS noise reduction, program search, and peak-reading LED level meters; and a straight-line-tracking direct-drive turntable (with servo speed control) that is only 4½ inches high.

Akai introduced two mini systems, the UC-3 and the UC-4, to fill the gap between the UC-2 and UC-5 that debuted last summer. The UC-4 ($800) is a combination of two-way loudspeakers with 4-inch woofers, a cassette deck, a tuner, and an integrated amp rated at 45 watts per channel. The phono preamp will accept either moving-magnet or moving-coil cartridges. There is a microphone mixing input, complete with adjustable reverber. Like most minicomponent tuners, Akai's has electronic tuning with scan/search and memory presets, ten each for FM and AM in this case. These features were found only on the most expensive tuners as recently as a year ago, but large-scale integrated circuits (LSIs) to perform the tuning chores are now available, and the elimination of large and heavy mechanical tuning components is very important in such small designs.

Mitsubishi Audio announced a minicomponent series last year for just under $1,800. This January they added a less expensive line. For $1,320 you can get a two-motor cassette deck; a preamp with moving-coil input, two tape loops with dubbing, and switchable subsonic filter; an AM/FM tuner with a truly linear slide-rule dial and a tuning-lock circuit that goes on when you have released the knob; and a 50-watt-per-channel power amp with peak-reading LED power indicators.
Are you telling me you lost your money playing roulette and you pawned our new equalizer to recoup your losses?

Meanwhile, the two domestic manufacturers who could be said to have started this part of the hi-fi business many years ago have reappeared on the scene. At its private hospitality suite, KLH announced two new packaged units: the System 500, with a target price of $2,000, and a minicomponent package, the System 400, expected to retail for $1,000.

Advent has just reissued a two-unit mono FM radio for the same price as their old one—$140. There is also a stereo version, the Model 420S, which looks the same (except for the extra loudspeaker) but which is really a minireceiver packaged in a 5-inch cube with stereo FM, phono, and tape inputs. The speakers that come with this system are also available separately. Finally, there is another small receiver, the 450S, with the same electronics as the 420S but in a more conventionally shaped package. With the same speakers, it costs $290.

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**SIGNAL PROCESSORS**

A report by

Ivan Berger

Since equalizers are the best-selling of the various kinds of signal processors, there were naturally a few new ones introduced at the WCES. Only one of them, however, was as revolutionary as the dbx 20/20 automated equalizer/analyzer introduced last year, and that was the "signal processing mainframe" by Zapco.

The "mainframe" is actually a computer (incorporating graphic and alphanumeric displays and a keypad) into which special-function modules can be plugged. When modules now under development are available and in place, the system will be able to equalize automatically with several types of equalization (parametric, octave-band, etc.). The Zapco system will also have computer-control inputs and a foot-pedal control so musicians will be able to shape their tones electronically as they play. The display is a 32 x 64-dot matrix that permits much finer resolution than that of the typical home analyzer (about 10 x 10 dots). Price and availability aren't yet determined, but the cost will certainly be higher than that of dbx's automatic equalizer (now $1,300).

At the other end of the parametric price range was Superex's GEM-4 "Varigraphic" ($209.95), a five-band graphic equalizer whose center frequencies can be varied over a range of more than one octave each. ADC's Sound Shaper Three Mark II "Paragraphic" ($229) is similar. What's new about this one (and about the latest versions of ADC's Sound Shapers One, Two, and One-Ten, all conventional graphic types) is the addition of LEDs to each slider to give a quick visual slide-position indication even in the dark. The new Three Mark II has also added a second tape monitor with two-way tape dubbing.

Audio Control's Richter Scale was another unusual equalizer model. Designed strictly as a bass-correction system, its five bands are spaced on half-octave centers from 31.5 to 125 Hz. Incorporated in the unit are a tape monitor, an 18-dB-per-octave subsonic filter, a rumble-reducer, a "Thunderbutton" (which boosts the bass by 15 dB at 36 Hz), and an analyzer circuit using a decibel meter and built-in wave-motion generator. An electronic crossover is also built in.

Half-octave bass equalization was also featured in Cerwin-Vega's GE-3 stereo graphic equalizer, which has filters placed on half-octave centers below 250 Hz and on octave centers above that frequency. Designed with professional use in mind, the $550 GE-3 has both balanced-line, XLR-type and unbalanced-line, phone-jack connections. Obviously not for the superstitious, the GE-3 has thirteen bands. Numark showed mixers with built-in equalizers, but they had six bands rather than the more common five.

Ten-band equalizers were the most common, however. Audio Control offered the D-10 ($169) with ganged channel controls, and the D-11 ($230) with individual channel controls and an analyzer section like the Richter Scale's. Marantz had a new ten-band unit too, as did MXR and Numark. And Spectro Acoustics had a new seven-band model in the charcoal-grey finish used in all of their new line. The company also announced a ten-band model to appear soon.

Soundcraftsmen's new AS1000 Auto-Scan-Alyzer is a real-time spectrum analyzer with an extra: it can be set to generate octave-band (instead of full-spectrum) pink-noise test signals in a timed sequence so that the user sees and hears one band at a time. The speed of the sequence can be adjusted or the signals can be scanned manually. In a fast trial at the show, it did seem to be a faster method than the usual full-spectrum analysis technique (Overleaf).
and either a phono or line-level signal. For recording, all these effects can be added to the signal fed to a tape deck. The third image enhancer is a car-stereo version of the Omnisonic Imager.

New bass-enhancement devices weren’t restricted to Audio Control’s Richter Scale. KM Labs showed their Servo Sub-Octavator, which goes beyond simple frequency boosting. Instead, it compares the input signal with feedback from the speaker cone (of any speaker) and applies corrective signals to deepen and tighten bass response.

Nothing much seems to have been added to the flood of outboard noise reducers that appeared last year (such as Sanyo’s Super-D and several Hi-Com systems), though Toshiba says it will bring in tape decks with its “Adres” noise-reduction system—which might presage an Adres black box, too.


difficult to assess at this stage as the devices are still too new, but early reports are promising. The Technics SL-15 ($850) and SL-7 ($400). Both are direct-drive machines with straight-line-tracking arms effectively integrated with their dust covers, which must be closed for operation. All functions are activated either automatically or by pushbuttons, with the SL-7 providing automatic end-of-record arm lift and return, cueing in either direction, and a sensor that prevents lowering of the stylus onto an empty platter. The SL-15 has all this as well as sensors and microprocessor circuitry that enable you to play disc bands in any desired sequence automatically. A Technics EPC-205P MK III cartridge is routinely supplied with the SL-15; the SL-7 comes with an Ortofon TM-14. However, alternative cartridges to fit the SL-15, SL-7, and SL-10 are being introduced by Audio-Technica as the Models AT112P, AT122EP, and AT132EP. The Technics machines are said to be insensitive to tilting and will even play upside down. Their appearance, highly reminiscent of some of the new videodisc players, suggests a determined and aggressive push toward the future.

Revox, another straight-line-tracking enthusiast, has made its technology more affordable with the $600 B 795, a direct-drive machine employing Hall-effect sensors and quartz-crystal servo-feedback speed control. In addition, the Revox arm is now usable with virtually any available cartridge. At the same price, the Benjamin 4100, a surprise entry from a long-established manufacturer not prominent in recent years, is also a straight-line-tracking unit with a novel belt-drive platter assembly that pulls forward like a drawer, permitting records to be loaded or removed without raising the dust cover. JVC’s L-ES direct-drive turntable, also a straight-line tracker, is controlled electronically by cueing pushbuttons that command a microprocessor. If cueing of specific bands is not required, a single control can govern all operations. Another radial-tracking arm turned up in the X-10 compact music system from Mitsubishi: it employs that manufacturer’s unusual belt-drive turntable designed to play on its side. In this case you cannot separate the turntable from the rest of the system, but the price for the works is only $690, without speakers.

All the above straight-line-tracking units employ servo-controlled motor systems to drive the arm along its radial path. In addi-
tion, a few manufacturers have produced passive arms with friction-free air bearings provided by associated air compressors. The first of these to go into serious production was the Dennesen ABLT-1, in which air emerges from tiny holes along the length of the arm's guide track with sufficient force to keep the arm assembly floating just free of contact with the guide track. The new Model AB-1 turntable from Coloney has a theoretically similar arm of different configuration. In this case the air-bearing principle doesn't stop with the tone arm: the belt-driven platter, too, is supported by a jet of air, and the whole assembly is in turn mounted on long spiral springs. Exotic, and probably priced accordingly.

At about $8,000, there is no question that the SX-8000 air table from Micro Seiki is expensive, as is the $1,000 MAX-237 tone arm that might be used with it. These new products spearhead the re-emergence of this manufacturer in the U.S. An extensive line of record-playing equipment also includes an updated version of their multi-thousand-dollar belt-drive with an unusual configuration of entirely separate platter and motor assemblies. Another manufacturer of esoteric turntables, Ariston, is also expanding; they unveiled the belt-drive RD80 at the show as a step-down from their more expensive designs.

In the more conventional sphere, we encounter Dual's three new models, in silver instead of the company's formerly inevitable black styling, and with isolated subchassis that float arm and direct-drive platter as a unit on sprung, fluid-filled shock absorbers. Further isolation for the entire assembly is provided by feet that are adjustable in their shock-damping characteristics. The tone arms are the established Dual ULM designs, with mechanical counter-weight filters to subdue arm-cartridge resonances. The top-of-the-line 741Q (under $500) is speed-regulated by a Hall-effect sensor, the least-expensive machine, the 608 (under $330), has a welcome feature: a 78-rpm speed. All three models have front-apron controls and an ample complement of automatic functions.

Advent has never before offered a turntable but has now produced the Model 190, a direct-drive machine, with servo-feedback speed regulation and an emphasis on specifications and value rather than frills. price, $169.95. Sansui, on the other hand, has introduced many turntables over the years, and its latest is the $400 FR-D55C, which incorporates a microprocessor that can be preprogrammed to play automatically up to seven bands on a record, in any order, and to repeat sides and sequences.

Onkyo has had a pair of moderately priced straight-arm belt-drive turntablesthis year, one of them, the $145 CP-1011F, with a LED speed indicator to display speed errors and a control to correct them. The more basic CP-100A ($125) lacks this feature but does show the costlier model's isolating feet (composed of a spring plus rubber and felt materials).

One of the more provocative new turntables to turn a few heads at the previous CES was the Oracle, manufactured by Trans-Audio Corporation of Canada. It has now been superseded by the same company's Delphi, which also employs a three-point unclosed cast sub-chassis, a belt-drive system, and an aggressively modern appearance. It also pays attention to resonances in both turntable mechanism and disc through the use of a new record mat and clamping system, laminated combinations of dissimilar materials, and a sophisticated suspension. The Delphi, without arm, costs $1,095. If this is too rich for your blood, there is a similarly modernistic design at about half the price: the Aude- del turntable by Sono Win, a belt-drive machine with a Plexiglas motorboard. However, if you choose to use the new tone arm from the same manufacturer (magnetic suspension and sapphire-impregnated bearings), its $1,000 price will pretty much eliminate any savings. An alternative choice might be the Danish-made Mochur Up-4, a unipivot arm that encourages—and is designed for—rapid switching of arm shafts with different masses, to match cartridges of different compliances.

For this show, Harnan Kardon made a surprise move away from the trend toward straight-line-tracking tone arms to give us the hk720 turntable: it has a conventional arm and an internal control to adjust the effective capacitance presented to the phono cartridge. And H. H. Scott made a not-so-surprising move into the high-rent district with the PS-98 ($400), a direct-drive machine whose tone arm has a very potent-looking antisiskating adjustment and two separate motors to control its cycling.

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Phono Cartridges

The news in phono cartridges this year involves further use of new materials (or old materials in surprising new applications) to enhance mechanical and electrical performance; continued adjustment of mechanical and electrical characteristics, particularly in moving-coil cartridges, to increase compliance and output, and more attention to the problems of tracking records that make unprecedented dynamic- and frequency-range demands.

Ortofon believes it has achieved the cartridge with the highest tracking ability to date in their new top-of-line VMS 30 MkII (price not announced). The Concorde series of cartridges integrated with low-mass headshells will also be expanded by at least one new model and in the direction of more moderate cost.

The latest from Sonic Research is the Sonus Bronze Series II ($30). It does not depart markedly from the company's long-standing design philosophy, reaffirming the need for balancing all parameters to realize optimum performance. Empire similarly stands on its past accomplishments, but offers the $80 IC-350, a cartridge that is integrated with its own headshell. Shure expanded its cartridge/headshell line with the M97HE-AH and M97EJ-AH ($120, $96). And the Model 100-e from Micro-Acou-
tics is once again an electret cartridge, but with a price ($90) said to be uniquely low for the performance level.

In the moving-coil camp, it was announced that the Micro Seiki line of cartridges will be brought to the U.S. by SAE. It will include the $350 LC-80Wi, with chemically pure copper windings and coil formers, the $250 LC-40Wi, and a more moderately priced moving-flux pickup, the LF-7. Osawa, the distributor of Satin moving-coil cartridges, had new offerings at prices ranging from $1,200 for the M21P to a mere $400 for the M20. Most expensive ($2,000) was the Au 2000 ribbon cartridge from Nagatronics (it is essentially a moving-coil design with single-turn coils). This paragon, integrated with a headshell, has 24-karat gold ribs, a diamond cantilever and tip, and a chunk of solid ruby that is said to shape the magnetic fields impinging on the ribs. The established 200 Series of Nagatronics cartridges has been altered to provide higher compliance and less mass.

Dynavector has managed to increase the output of its EV-10X moving-coil unit to 2.3 mV, which means a new model suffix (Type II) but no increase in price (it remains $120). And Fidelity Research has added the $800 MC702, appreciably lower in mass than previous models, and a new $800 transformer, the XF-1, to match it to conventional phono inputs.

Adcom’s $400 Crosscoil XC cartridge, also in the moving-coil category, featured yet another new stylus shape, the Van Den Hul, named after its inventor. The stylus is said to be the closest practical approximation of the cutting stylus yet devised for playback purposes. Goldring is also using the new configuration.

 Speakers

Speaker designers seem to be exploring every direction simultaneously these days: tall enclosures, wide enclosures, shallow enclosures, box enclosures, multi enclosures, indescribably shaped enclosures, no enclosures; cone diaphragms, dome diaphragms, flat diaphragms, film diaphragms, corrugated diaphragms, undescribable diaphragms, no diaphragms; simple crossovers, complex crossovers, more-than-complex crossovers, electronic crossovers, no crossovers. All were present to be seen, heard, and wondered at in Las Vegas in January.

Let’s begin this examination of new loudspeakers with the Acoustic Research 38S, 28S, and 18S ($150, $125, and $90, respectively), all based on the company’s market research indicating that what many consumers really want in a good-sounding speaker system is a couple of cones in a plain walnut box. Even the much-maligned extended moldings around the grille are considered desirable, and good electro-acoustic efficiency (a big issue with manufacturers this year) is always a plus.

KLH, a company sprung from the same no-nonsense traditions as AR, was relative-
scheme responsible for "phase coherency" but abandons the potbelly-troll look for a much sleeker but still unusual shape. The two-way DM22 ($225) has a grille configuration with a plunging neckline.

Bozak is up to some interesting things in its new LS-440A tower system ($700). Within are essentially separate three-way and two-way (woofer plus midrange) driver systems. Played in the normal way, they are said to result in an enhanced spatial image but a rear-panel switch permits the user to disable the two-way system's midrange, shifting the spectral balance in favor of the bass. There are two additional new offerings in the Bozak line along with a subwoofer, the MBE-1, with its own amplifier.

New speakers come from two other New England manufacturers. The EPI A-300, a three-way sealed design, costs what the model number suggests. The two-way Genesis 1, based on an 8-inch woofer and a 1-inch inverted-dome tweeter, costs $100 (Genesis also has four other, upmarket designs in the immediate wings). Far from New England, Kenwood has developed the Model LS-1000, a $250 two-way design with planar film tweeter and a 10-inch woofer with strongly articulated radial and concentric ribs for cone stiffening.

Marantz has brought its latest speaker offerings out in two lines of three models each that parallel each other fairly closely. In the "Precision Plus" series are the Models M-2, M-10, and M-16 ($190 to $750), and in the Marantz series are the 200, 400, and 600 ($200 to $650). The top models in both lines are four-way designs with front-mounted slider controls for the upper-frequency drivers. B&O's Models M-2, M-10, and M-16 ($190 to $750), the latest addition to that increasingly popular phenomenon, the minispeaker. Among the notables: the JR Metro ($210), a two-way design with a 5-inch woofer and a 1-inch dome tweeter; the Mini Open ($125), a three-way system that is atypically broad and shallow; the Visonik Mini-Euro 2 ($135), a two-way that is evidently intended for use with a subwoofer (the new Euro 12, a $450 three-way tower design, presumably doesn't need one); and the Linn K.A.N., another two-way. The Ultralinear RadioMates are not actually "mini," just smallish packages of very high efficiency that are intended to be driven effectively by the minuscule amplifiers in portable radios and other carry-around nonesketchs. They are distinguished by prominent acoustic lenses extending from their front panels.

There were more than a few ambitious additions to that increasingly popular phenomenon, the minispeaker. Among the notables: the JR Metro ($210), a two-way design with a 5-inch woofer and a 1-inch dome tweeter; the Mini Open ($125), a three-way system that is atypically broad and shallow; the Visonik Mini-Euro 2 ($135), a two-way that is evidently intended for use with a subwoofer (the new Euro 12, a $450 three-way tower design, presumably doesn't need one); and the Linn K.A.N., another two-way. The Ultralinear RadioMates are not actually "mini," just smallish packages of very high efficiency that are intended to be driven effectively by the minuscule amplifiers in portable radios and other carry-around nonesketchs. They are distinguished by prominent acoustic lenses extending from their front panels.

Some new speakers will give you more than you expect. The Snell Type 1, for example, has a metal floor plate because floor level is where the two drivers are positioned, and their outputs need a proper reflective surface. The KM AC 550 ($450) can give you listening satisfaction for yourself alone or for a roomful of people, depending on how you adjust the relative levels of three tweeters set in an array to provide a variety of directivity patterns. And Dahlquist finally gives you a box, which they tried so assiduously to avoid in the original and justly celebrated Model DQ-10. The enclosure reportedly better meets the requirements of professional sound engineers seeking a more conventional monitor design than the array of essentially free-mounted drivers the DQ-10 provides. The enclosure-mounted DQM-7 ($400) and DQM-9 ($600) systems are supplements, not replacements, for the DQ-10.

The very high-end Beveridge line of systems is growing as well. Preliminary information on the new System-4 electrostatic transducer describes a 3-foot-high columnar design effective above 200 Hz. A dynamic woofer section with two 12-inch drivers supports it physically and spectrally. Passive crossovers are built into a projected price is about $3,000 for a stereo pair. Acoustat's new $750 Model Three (not to be confused with the Monitor Three, which it is said to match in output capability), is a full-range electrostatic system that benefits from the gentle load on the driving amplifier provided by its novel two-transformer interface. The Image Master from Island Sound, a comparatively conventional dynamic system, costs only $375 the pair but seems to achieve its goal—a credible, depth-suggesting stereo image—nonetheless. The Vandersteen 2B, a three-way configuration with stepped-back drivers ($920 per pair), is the third evolutionary development of a long-standing design concept. Many other speaker systems at the show were interesting for reasons just as diverse and at least as valid, but there is not enough space to do them all justice.
EVERY time I hear Verdi's Falstaff I find new riches in its incomparable, ever-fresh score. There was a time when I deplored the fact that it was not "box office," that though it was respected it was not really loved by opera's faithful legions, but I have since discovered why this is so. Falstaff is, simply, too good; it does not appeal to all lovers of opera because it was not meant to.

Although always a keen respecter of popular taste, Verdi at age eighty allowed himself the luxury of no longer catering to it, of immersing himself in the proud and selfish joy of creating a masterpiece to delight his own senses. So he wrote this giant, effervescent scherzo that moves with an inexorable momentum, spills over with ideas, and sometimes recklessly mows down promising buds before they can burst into melodic flowers. There is barely time for aria-length episodes, even though 'conversational gestures abound in memorable musical fragments. "Falstaff immenso!" cries Pistola early in Act I, and we might say the same about the opera itself. It is a miracle of wisdom, wit, and incredible skill that sweeps everything before it—"Falstaff tone" of mellifluous richness, he uses a leaner instrument with uncommon resourcefulness. Rolando Panerai, himself fifty-seven and a veteran of two recorded Falstaff casts (Karajan's first and Bernstein's), is still a powerful Ford, in full command of a pungent tone and an admirably clear projection. The Alice of Raina Kabaivanska is in the class of her distinguished predecessors in the role (Schwarzkopf and Ligabue). Hers is not an incandescent vocalism, but it is appealing, and the characterization is memorably drawn with a charming touch of irony. Christa Ludwig is a flavorful Quickly, and Trudeliese Schmidt the almost identical Toscanini and Solti timings. I am happy to report that the music's essential vitality has not been compromised in the process, for though his pacing may be questioned at times, Karajan's total effort is successful. His control of the performance is absolute; the ensembles are polished to perfection, the orchestral tone is luxuriant. There are occasional balancing problems, but despite these, and despite a few episodes where spontaneity gives way to artifice—Sir John's wooing of Alice (Act II, Scene 2), for example, moves along much too deliberately—the overall view works, and Karajan has forged his gifted singers into a marvelous ensemble.

In this ensemble of nearly uniformly strong performers, praise should go first to the amazing Giuseppe Taddei, aged sixty-five, whose total mastery of the title role, enriched by a superb comic sense and a practiced skill at vocal coloration, triumphs over the unavoidable tonal shortcomings. No longer in command of what was once an ideal "Falstaff tone" of mellifluous richness, he uses a leaner instrument with uncommon resourcefulness. Rolando Panerai, himself fifty-seven and a veteran of two recorded Falstaff casts (Karajan's first and Bernstein's), is still a powerful Ford, in full command of a pungent tone and an admirably clear projection. The Alice of Raina Kabaivanska is in the class of her distinguished predecessors in the role (Schwarzkopf and Ligabue). Hers is not an incandescent vocalism, but it is appealing, and the characterization is memorably drawn with a charming touch of irony. Christa Ludwig is a flavorful Quickly, and Trudeliese Schmidt...
Giuseppe Taddei as Falstaff
(Photo: Fayer, Wien/Philips Records)
an entirely satisfactory Meg. Janet Perry and Francisco Araiza are a likable pair of lovers, both youthful and winning in sound, though the tenor could profitably use more tonal body to support an attractive timbre and fine technique.

The roles of Cajus, Bardolfo, and Pistola are satisfactorily done, but somehow the singers are not given enough presence in the overall sonic frame to permit them to assert themselves sufficiently. Aside from these production miscalculations, the set's digital sound admirably supports Karajan's efforts to clarify the opera's miraculous musical complexities.

—George Jellinek

Superb Dvořák
Chamber Music in Splendid Performances And Immaculate Recording

Few of Antonin Dvořák's works in any form carry his personal imprint more clearly or attractively than his two quartets for piano and strings, the second of which (E-flat, Op. 87) represents one of the peaks in the chamber-music production of a composer whose only peer among contemporaries in this realm was Brahms. It is curious that his piano quartets are heard so much less frequently than those of Brahms, but gratifying that the attention they have received on records has been on such a high level. CBS, which issued its recording of Dvořák's Piano Quintet with Rudolf Firkusny and the Juilliard Quartet some four years ago (M 34515), has only now gotten around to issuing the two quartets, which this team recorded at the same time. (Yes, the entire team: violinist Robert Mann performs in the Op. 23 quartet and Earl Carlyss in the Op. 87.)

The two-disc set was issued in England two years ago, and I can only wonder why its release here was so long delayed, for it is a most distinguished presentation. Here the Juilliard's contributions are more persuasive than in the quintet recording, with especially beautiful playing by cellist Joel Krosnick, and the integration with Firkusny seems altogether more complete, as if the string players too had lived with this music all their lives and had played it with him for years.

In addition to the eminently agreeable RCA recording of Op. 87 by Arthur Rubinstein and members of the Guarneri Quartet (LSC-3340), we have had for the last several years a still more satisfying Philips disc on which the Beaux Arts Trio and violist Walter Trampler give us each quartet complete on a single side (6500 452). While both the Philips and the new CBS performances are really first-rate, I think Firkusny and the Juilliard reach still deeper inside the music, and the CBS recording is clearly superior in terms of definition, balance, and overall presence. The extra sides are required because the full exposition repeat is taken in the opening movement of Op. 23 and there is an even more welcome repeat in the finale of Op. 87. Since CBS has generously eliminated economic considerations by giving this set a special price that is the same as that of the single Philips disc, this is surely the version to choose.

—Richard Freed


New Creations by Corigliano and Barber Magnificently Celebrate The New York Philharmonic

How CBS could have failed to claim such material for itself, I cannot imagine, but New World Records has scored a real coup in borrowing Zubin Mehta and the New York Philharmonic to record two of the most intriguing new works written for that orchestra in the last several years: John Corig-
Corigliano's wildly imaginative Clarinet Concerto and the late Samuel Barber's Third Essay for Orchestra. It was for Stanley Drucker, the Philharmonic's superb principal clarinetist, that Corigliano composed his concerto, as part of the series of concerted works for the orchestra's principal players commissioned by Francis Goelet (who also, together with the National Endowment for the Arts, provided funding for this recording). But, as the composer himself has pointed out, the work was really created for the entire orchestra—a "concerto for orchestra" as well as a clarinet concerto—giving every section and many individual players virtuoso opportunities.

Corigliano literally grew up with the Philharmonic. His late father was its concertmaster for twenty-three years; he himself had some lessons from Drucker and worked with Leonard Bernstein and the orchestra for a time as a member of the production team for the televised Young People's Concerts. The premiere of the concerto in December 1977, with Bernstein conducting, was one of the most exciting events yet presented in Avery Fisher Hall, its special impact generated by the incredible difficulty of the solo part and Drucker's magnificent playing, by the sheer exuberance of much of the score, and by the broadly felt "familial references" to the Philharmonic.

In the first movement, headed "Cadenzas," Drucker identifies himself as the master for whom the part was created. The second, "Elegy," is a memorial to Corigliano Sr. in which the solo violin (here played by Sidney Harth) has an extended dialogue with the clarinet. The last, "Antiphonal Toccat'a," quotes Giovanni Gabrieli's Sonata Pian' e Forte and not only has antiphonal effects produced by the orchestra on stage but has several brass players distributed around the hall, extending the range of musical effects and at the same time in a sense extending the Philharmonic's musical "family," drawing the audience into it by scattering musicians in the boxes and aisles. While the unique excitement of the premiere would probably be impossible to duplicate under any conditions, the full aural impact is most successfully recaptured by Drucker, Mehta, and the orchestra in the absolutely magnificent recording.

The Third Essay, with which Mehta opened his first season as the Philharmonic's music director in September 1978, was Barber's last work for orchestra and, I believe, his last completed composition in any form. It displays obvious connections with the two earlier Essays of 1937 and 1942, and at the same time is just as conspicuously different from them. It is at once more urgent and more expansive, and it has a greater emphasis on (one might even say it is a wilder celebration of) orchestral virtuosity. While lyricism is less to the fore than in the earlier Essays, Barber's distinctive vein of romanticism is clearly identifiable, together with some coloring that suggests so unexpected an influence as Scriabin. It is, in any event, a stunning valediction, and it is carried off with irresistible conviction and brilliance to burn.

In addition to sensationally good sound, New World has provided its characteristically outstanding documentation, in this case including transcripts of talks Phillip Ramey had with both composers. If there is any room for complaint, it might seem that the twenty-seven-minute concerto really doesn't require more than a single record side; its nine-minute final movement is on side two, I assume, only because the eleven-minute Barber piece was not considered enough for a side to itself. The total timing is the same, no matter how you slice it, but this is a very minor inconvenience and the release is certifiably indispensable.


**Tantra's Double Album:**

**Fiendishly Designed To Get You on Your Feet and Dancing**

If you're wondering where disco has gone, here's the answer: it's gone to Europe—or, more precisely, to Italy. Fortunately, the Italian group Tantra has sent it right back in a simply terrific
BEST OF THE MONTH:
RECENT SELECTIONS
YOU MAY HAVE MISSED

CLASSICAL

Franck: Les Djinns; Symphonic Variations, Preludio, Chorale, and Fugue. BIS LP 137. "Infectious spontaneity, superb sound for fascinating piano/orchestra works." (April)

Handel: Messiah. L'OISEAULY D189K33. "The most absorbing and moving performance... ever." (March)

Hans Helfgott: Chamber Music for Oboe and Strings. DENON OX7185-ND. Splendid performances by a simply wonderful oboist, superb digital recording." (April)

Heinz Holliger: Chamber Music for Oboe and Strings. DENON OX7185-ND. "Splendid performances by a simply wonderful oboist, superb digital recording." (April)

Luciano Pavarotti: Vediamo Arias. LONDON LDR 10020. "Every selection represents richly toned committed exceptional vocalism." (March)

Ray* Solaro: Rojo & Espegnole; Agar& del Grackle°. RCA ARCI 3686. "Razor-sharp performances, a blockbuster digital recording." (February)

RosWni: Wdlrn Tell. LONDON OSA 1446. "A masterpiece gets the cast it deserves." (April)

Shostakovich: Symphony No. 13, Op. 113 ("Babylonia"). ANGEL SZ-37661. "Perhaps Andre Previn's finest recording to date." (March)

POPULAR

Roy Acuff: Sings Hank Williams (For the First Time). ELEKTRA 6E 207. "One master pays tribute to another should become a collector's item." (March)

Bobby Bare: Drunk and Crazy. COLUMBIA JC 36785. "Sentiocomic country rock... basically anti-hypocrisy in a good-old-boy mode." (February)

Blonde: Autoamerican. CHRYSLIS CHE 1290. "An album of good tunes, stylish lyrics, and impressive performances." (April)

Aretha Franklin: Aretha. ARISTA AL 9538. "The Queen of Soul back in peak form." (February)

Don McLean: Chain Lightning. MILLENIUM BXL 1-7756. "A triumphant return... filled with wondrous delight in musical discovery." (April)

MichaelWycoff: Come to My World. RCA AFL 1-3813. "A polished debut album by a promising young multi-talent." (March)

Neil Young: Hawks & Doves. REPRISE HS 2297. "Back to basics with one of the originals." (March)

Warren Zevon: Stand in the Fire. ASYLUM SE-519. "The first great live album of the Eighties... could annihilate your house plants." (April)

TANTRA: The Double Album. Tantra (vocals and instruments). The Hills of Katmandu; Get Ready to Go; Top Shot; Sukumavu; Mother Africa; Hallelujah; Get Happy; Wishbone. IMPORTE/12 MR 310 two discs $13.98.

Toots and the Maytals: The Absorption of American Soul in Jamaican Reggae

It is ironic that one of this era's most gifted soul musicians comes not from the United States, the simmering crock pot of contemporary popular music, but from another corner of the Americas. Although Toots Hibbert hails from Jamaica and the music he makes is called reggae, he has noth-
NO RUM REFLECTS PUERTO RICO LIKE RONRICO.

Puerto Rico is the Rum Island, the world's foremost rum-producing region. And Ronrico is the rum—authentic Puerto Rican rum since 1860. Ronrico's smooth, light taste has been the pride of six generations of Puerto Rican rum masters. One sip will tell you why.

RONRICO: AUTHENTIC RUM OF PUERTO RICO.
Come to where the flavor is.
Come to Marlboro Country.

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


Fleetwood Mac:
A Sound That Didn't Have a Sound Until They Came Along

The last song in Fleetwood Mac's new "Live" album is The Farmer's Daughter, and the last of the credits thanks Brian Wilson for contributing it to the band's repertoire, adding, "You're the greatest." The group's implied affinity for the Old Beach Boy seems fitting, since both he and Fleetwood Mac hit upon the sound of something that wasn't sure it had a sound until they came along. In Fleetwood Mac's case, it wasn't the sound of something specific a place as Surf City, U.S.A., but of something many of us carry around in our heads—call it the folk-rock consciousness as amended by the Seventies. Like Wilson, the three Mac songwriters use the words mainly to point you in the right direction and the sound to do the actual conveying. All in all, listening to "Live" is a first-class way to go.

True, it has its dispensable greatest-hits-and-crowd-noise aspect, but it also contains enough stuff I don't have (or have scratchy) that I have to value it for the material. But the best part is how the material is handled. Studio licks are not faithfully duplicated, for new instrumental ideas have been brought to several "old" pieces. Over My Head, for example, has been rearranged in a muscular but fanciful way, yet it's always the song, not the crowd, that's treated first. And the subtle gains in spontaneity that live albums should provide (and usually don't) are present in just about every cut. There's almost no self-indulgence; the instrumental break in Not That Funny may seem rather drawn-out, but it is redeemed at the hand of a Lindsey Buckingham guitar solo that replicates the babbling of someone steadily going bananas. And then Buckingham sings his way around the high notes in Never Going Back Again (in the phrase, "Been down one time, been down two times") and still brings it off as one of the highlights of their tour.

Part of the reason is the fine, spartan acoustic-guitar accompaniment in that particular case: getting the sound right. Fleetwood Mac is one of the best bands at doing that. Many of the instrumental figures it plays are not all that difficult—once they've been thought up. But just try sitting down with the bare bones of a tune and thinking this stuff up. They may not do everything I claim I want (I think everyone should write lyrics like John Prine), but they do so many things so well: they never forget the aesthetic value of contrast, seldom let a thing run on too long, and always let you hear through the instrumentals that's treated first. And the subtle gains in spontaneity that live albums should provide (and usually don't) are present in just about every cut. There's almost no self-indulgence; the instrumental break in Not That Funny may seem rather drawn-out, but it is redeemed at the hand of a Lindsey Buckingham guitar solo that replicates the babbling of someone steadily going bananas. And then Buckingham sings his way around the high notes in Never Going Back Again (in the phrase, "Been down one time, been down two times") and still brings it off as one of the highlights of their tour.

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AFTER a concert at the Amsterdam Concertgebouw, pianist Alfred Brendel received a large birthday cake from his record company, Phonogram International. The cake was the traditional Abraham cake customarily presented to men in Holland when they reach fifty. To the Dutch, the Bible verse John 8:57 ('You are not yet fifty years old, how can you have seen Abraham?') suggests that one should see Abraham upon reaching fifty, the age of wisdom. More than six feet long and the largest Abraham ever baked in Amsterdam, Brendel's cake was decorated with the jacket of his recording of Beethoven's Appassionata, Moonlight, and Pathétique sonatas, released in the United States by Philips in January. As if to show that reaching the age of fifty does not cause any slackening of vigor, Philips released three more Brendel recordings in March: an album of Haydn sonatas, one of late Liszt pieces, and a Schumann album of works for piano and oboe performed with Heinz Holliger.

The first work by an American-born composer ever to be performed at the Vienna State Opera is Leonard Bernstein's Mass, which was in repertory there in a German-language production during February and March. Mass was composed for the opening of the Kennedy Center in Washington, D.C., where it was first performed on September 8, 1971. That première was conducted by Maurice Peress, who also conducted the Vienna performances this year. Bernstein himself conducted the award-winning CBS Masterworks recording of Mass.

Bernstein is also being performed in German in Berlin, where a very successful production of West Side Story is on the boards at the Theater des Westens. A Broadway musical about opposing Hispanic and Anglo-American juvenile gangs in Manhattan in the late 1950s, West Side Story provides a metaphor for the ethnic tension between Germans and Turks today. An influx of laborers from Turkey in recent years has made West Berlin the third largest Turkish city in the world.

This is the year of The Spellbound Child—that is, L'Enfant et les Sortilèges at the Monte Carlo Opera in 1925. He staged the work in New York with Ballet Society in 1946 and again for the New York City Ballet's Ravel festival in 1975. Television has made it possible for him to express certain elements of fantasy in this work that could only be suggested in the staged productions, Balanchine says, and he feels he has now been able to realize the work as he always envisioned it. In the television version it is performed as an opera-ballet by members of the New York City Ballet, the NYCB orchestra, a chorus of twenty-four, and nine vocal soloists. Soprano Karen Hunt appears as the Princess, dancer Karin von Aroldingen as Fire, and Christopher Byars as the Child.

Designer Kermit Love (left) shows a puppet to Balanchine before PBS taping of The Spellbound Child with Christopher Byars (center).
Deutsche Grammophon, the step has been moving so briskly that its U.S. sales alone are already more than double what the Böhm recording sold in Germany in the previous ten years.

When interviewed by Stereo Review last year, composer/conductor John Williams described his violin concerto (then still unperformed) as quite different from his scores for jaws and Star Wars and probably the best thing he had ever written. When the concerto had its world premiere in St. Louis in January, played by violinist Mark Peskanov and the St. Louis Symphony conducted by music director Leonard Slatkin, it was favorably reviewed in the Globe-Democrat by critic James Wierzbicki, who wrote: "The concerto is so craftily paced and so seductive — orchestralized that those who hear it have little choice but to give in to its emotive power. But New York critics did not give in when the same musicians played the concerto at Carnegie Hall later in the season. Bill Zakariasen of the Daily News described it as: "A dreamy piece, predictable note-spewing of no profile whatsoever." Williams, who was on hand for the Carnegie Hall performance, said the piece sounded good to him. Peskanov, Leonard Slatkin, and the St. Louis Symphony gave it a wonderful performance, and I would love to have the concerto recorded by these musicians. There are a few measures I might like to rewrite, but I thought the second movement went particularly well. Taking bows at Carnegie Hall is no novelty for Williams, who has conducted the Boston Pops there. He finds that coming out after a performance and taking a bow as the composer is "a lot more comfortable." If the New York critics pass for his concerto disturbed Williams, he has many things with which to console himself. He has just won two new Grammy Awards to add to the eight he already had — this year his score for The Empire Strikes Back won as Best Instrumental Composition and as Best Original Score for a movie or TV special. Also, "Pops in Space."—W.L.

The name of composer Alban Berg (1885-1935) is not exactly a household word in the United States — not even in all musical households — but when the National Academy of Recording Arts and Sciences handed out this year's classical Grammy awards, it was Berg's Big Night. Violinist Itzhak Perlman tied with himself in the category of Best Instrumental Solo with Orchestra, winning for the Brahms Double Concerto (with Misstislav Rostropovich) on Angel and the Stravinsky and Berg concertos on Deutsche Grammophon. The DG recording of Berg's concertos, by Pierre Boulez with Teresa Stratas in the title role, won as Best Opera, Best Engineered Classical Recording, and Best Classical Album of the Year.

The Metropolitan Opera's performances of Lulu this season, conducted by James Levine, contributed to interest in the DG set, and both the matrix radio broadcast with Stratas and the PBS telecast in Texas Live from the Met series with Julia Migenes-Johnson as Lulu stimulated sales of the recording. Boulez's complete three-act Lulu superseded DG's older two-act version under Karl Böhm. According to

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Certainly one of the finest harpsichord-violin teams in business today is that of Carol Lieberman and Mark Kroll. Both of these artists play with a rare combination of vigor and sensitivity that brings to life whatever music they approach. Their greatest distinction, however, is in the area of balance; their recording of J. S. Bach’s sonatas for violin and obbligato harpsichord is the only one available in which the sonority of the two instruments blends into a perfect whole. Here turning to the music of two of Bach’s sons, Carl Philipp Emanuel, the second oldest, and Johann Christian, the youngest, Lieberman and Kroll have come up with a fascinating album that demonstrates the differences between the Empfindsamer (expressive) style and the galant style.

The first movement of Carl Philipp Emanuel’s B Minor Sonata introduces a raging harpsichord and a pleading violin that eventually joins in the raging. The other two movements are devoted to melancholy. In the last, filled with strange and expressive pauses and silences, the two instruments are equal partners as they pass fragments back and forth and intermingle them. Johann Christian’s three sonatas are in a completely different vein, full of elegance, with graceful melodies emerging from light-hearted textures. Here the harpsichord takes the lead and the violin offers sustained support and witty commentary.

Lieberman and Kroll are equally at home in both styles. The older Bach’s Sturm und Drang expression is powerfully projected and beautifully contrasted with the suppressed passion of the lyrical sections. In the younger Bach’s sonatas, all is light and airy. Ms. Lieberman’s role here must not be underestimated. Taking a low profile so as never to obscure the harpsichord part, she nonetheless supplies the dynamic expression that the harpsichord is incapable of creating. Subtly written and subtly played, the violin part breathes soul into the monochromatic sound of the harpsichord. This is another victory in balance, and it sheds new light on all too frequently misunderstood music.

J. S. BACH (arr. Siloti): Prelude in B Minor
(see TCHAIKOVSKY)
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In fact, the Graf was a distinctively old-fashioned instrument in its day—relatively dry and light in tone.

Was this the instrument for which Beethoven fashioned his last sonatas? Not exactly. The set of thirty-two sonatas was completed in 1822, by which time Beethoven was totally deaf. The instruments that inspired his later sonatas were French (Erard) and English (Broadwood). The latter particularly pleased him; its innovative construction gave it power, sustaining as well as dynamic, and paved the way for those Romantic and modern music-making machines with which we are so familiar.

Paul Badura-Skoda? The name has to have resonance for anyone who listened to or collected records in the early days of the LP. Many of us learned our Classical repertoire at the metaphorical foot of this master. But Badura-Skoda never made an international career, and the reason became clear as soon as he appeared in live performance: he simply did not have the virtuosic technique. His records represented a new kind of musical artist, the cut-and-splice genius whose medium is records and records only.

What does this add up to? Unquestionably something of interest. The instrument is not really singularly appropriate—it does not work for late Beethoven the way Malcolm Bilson’s much earlier Viennese-style instruments work for Mozart and early Beethoven. And Badura-Skoda is not even with all the splices, really equal to the technical demands of the later sonatas. One thing does have something to say, and his instrument is certainly of a type that must often have been used for Beethoven sonatas. Its very clarity is in its favor, and its lack of strength is somewhat compensated for by the miking here. The records are beautifully made—in France, by the way, although the performances were taped in Vienna.


Performance: Suave
Recording: Good detail

RECORDING OF SPECIAL MERIT

Performance: in the grand tradition
Recording: Excellent

Three first two digitally mastered recordings of the Eroica offer a study in interpretive contrast. Zubin Mehta opts for a suave, smoothed-over treatment of the symphony. The sharp accents and steady pulse demanded throughout the opening movement are missing in his CBS recording, and the funeral march is not ideally steady either. Interpretively things improve decidedly in the last two movements, however, and the digital sonics bring out a lot of detail in the outer sections of the scherzo.

In contrast, Austrian-born Otmar Suitner, who has long been active in East German musical circles and particularly with the excellent (East) Berlin Staatskapelle, comes through here with a reading in the grand tradition of Weingartner, Toscanini, and Szell. It is a rugged performance with authentically heroic dimensions. Strength is the distinguishing aspect of the opening movement. The succeeding funeral march may seem a bit too fast to some, but the pulse Suitner maintains conveys the proper sense of tragic inexorability, and the ritards attacks at the climactic moments have tremendous impact. The scherzo goes with a terrific zing, and the variations-finale has a stunning brilliance, particularly in the solo winds. Indeed, it is especially pleasing throughout that Suitner keeps the woodwinds far back and center, not overpreserving Beethoven’s intentions regarding balance but allowing the listener to hear a wealth of details that are usually lost in the overpowering string sonority of most modern performances.

I have in the past criticized the sound of Denon’s orchestral recordings in the Christuskirche in East Berlin, but in this case the balance is exactly right, with a perfect balance between presence and resonance. Undoubtedly there will be dozens of other digital recordings of the Eroica in the future, but both interpretively and sonically you can’t go wrong with the new Denon disc. And the Japanese pressing is absolutely flawless.

D.H.

(Continued on page 68)
Stereo Review's SRT14-A
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SEPARATION, LEFT-TO-RIGHT. Uses test tones consisting of one-third octave bands of pink noise recorded in the left channel with reference tones in the right, to check leakage from left to right.
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CHROMATIC OCTAVE. The tones of the "equal-tempered" octave from 440 Hz to 880 Hz are recorded with accuracy better than 0.1 per cent.
I never heard Sir Thomas Beecham conduct Mendelssohn's **Lobgesang** (the Symphony No. 2, which Mendelssohn designated a "symphony-cantata"), but I think that if he ever performed the work it must have sounded much like the new Philips recording by his old orchestra, the London Philharmonic, under Riccardo Chailly. One can sense Chailly's relish in this assignment. He draws gorgeous playing and singing from his forces, never on a level of mere efficiency, but enormously involved, communicative, and more than a little caressing. This young conductor's reputation has been built in the opera house—his only previous recordings appear to be those of Massenet's **Werther** on Deutsche Grammophon and Rossini's **William Tell** on London—and he responds to the dramatic nature of the seldom-heard **Lobgesang** with very sure instincts.

Beecham in so many famous instances, Chailly shows here that a more compelling and truly exciting effect can be achieved by taking slower tempos than usual rather than whipping up a breathless pace. The three trombones' statement of the opening phrase is a good deal slower than Mendelssohn's own marking indicates, but the effect is truly maestoso, which is to say it has great solidity and breadth without being in the least turgid or stuffy. Christoph von Dohnányi, with the Vienna Philharmonic (London CSA 2250), comes closer to the "correct" speed, and Kurt Masur, in his complete Mendelssohn symphony set with Mendelssohn's own Leipzig Gewandhaus Orchestra (Vanguard VCS-10133/36), comes closer still (he brings in the entire complete Mendelssohn symphony set with the "correct" speed, and Kurt Masur, in his studio hardware (without equalizers, limiters, or digital master tape), that each of the four movements was recorded in a single take and preserved without splices. Why that information should have been conveyed in such a discreet footnote, while the technical recording information is given at length and in easily readable type, I can't imagine, but the sound is something the producers have every right to be proud of. It too is hearteningly "live," its exceptional realism achieved not through a digital or direct-cut process but by half-speed mastering of an analog tape made with a minimal array of studio hardware (without equalizers, limiters, or gain riding). And to complete the list of admirable qualities, the pressing is impeccable; one is simply not aware of electronic involvement in the sonic reproduction. Perhaps no great interpretive personalization is thrust on the listener, but Brham's musical personality emerges uncluttered and fetching in this unselfconsciously sympathetic, exceptionally live presentation. R.F

**MENDELSSOHN:** Symphony No. 2, in B-flat Major, Op. 52 ("Lobgesang"). Margaret Price, Sally Burgess (sopranos); Siegfried Jerusalem (tenor); London Philharmonic Choir and Orchestra, Riccardo Chailly cond. Symphony No. 3, in A Minor, Op. 56 ("Scottish"). London Symphony Orchestra, Riccardo Chailly cond. Philips 6769 042 two discs $19.96, @ 7699 128 $19.96.


**Recording: Outstanding**

This is an imaginative collection, and it is very well played and recorded (if not entirely free of both pre- and post-echo). Without Bolcom himself makes **Graceful Ghost**, the first of his Ghost Rags, more insinuating than it is here, but the remaining two—**Poltergeist** and **Dream Shadows**—are welcome, and the three do add up to a cycle that works. Paul Jacobs may not have quite the proprietary authority in the Copland that Leo Smit shows in his recent set of all of Copland's solo-piano works, but he makes his own convincing case for the music, and in the fantastic, neo-Ivesian Rzewski workouts on **Dreadful Memories, Which Side Are You On? Down by the Riverside, and Winnisbora Cotton Mill Blues** the proprietary authority is all his, for the set was composed for him. While Jacobs' own annotations for his Debussy recordings have been exemplary in their comprehensive informativeness, what he has provided in this case is a bit less (for example, he does not mention the four pianists for whom Copland wrote his Piano Blues. But the case itself, which is the point after all, is both intriguing and satisfying. R.F.

**RECORDING OF SPECIAL MERIT**


**Performance:** Good Recording: Good

This performance may tell us nothing new about Brahms' C Major Trio, but it certainly leaves nothing of importance unsaid. Beyond the readily apparent skill of the well-matched performers (what handsome, warm tone from both string players!), it is the stimulating feel of a live performance that has been conveyed here. Perhaps it is a bit less (for example, he does not mention the four pianists for whom Copland wrote his Piano Blues). But the case itself, which is the point after all, is both intriguing and satisfying. R.F.

(Continued on page 72)
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CIRCLE NO. 26 ON READER SERVICE CARD

BRIAN: Symphony No. 10; Symphony No. 21; Leicestershire Schools Symphony Orchestra, James Loughran and Eric Pinkett cond. UNICORN UNS 265 $10.98 (from Euroclass Record Distributors, Ltd., 155 Avenue of the Americas, New York, N.Y. 10013).

Performance: Passable to excellent
Recording: Improved remastering

These two tough-fibered works were recorded in 1972, a few months after Haver-gal Brian's death at the age of ninety-two. Brian completed thirty-two symphonies, yet this was the first commercial disc documenta-tion of his work. In my 1976 review of the original issue, Unicorn RHS 313, I noted that the one-movement Symphony No. 21 ranges in idiom from Schoenbergian density of texture to the bleak sparseness of late Sibelius and Shostakovich, whereas No. 10, in four movements, is more expansive and ru-minative and has just a touch of English flavor in the march episode of the finale. The performance of No. 10, led by James Loughran, is the more impressive, for while Eric Pinkett does succeed with his gifted amateurs in the end movements of No. 21, the demands of the scherzo prove a bit much for them. This reissue is a decided improvement sonically and a pleasure to hear.

For those on the hunt for recordings of the Brian symphonies, a summary may be in order here. Among the authorized commercial recordings, only two have appeared thus far on a U.S. label: Symphonies No. 6 (Tragedia) and No. 16 with Myer Fredman conducting the London Philharmonic on Musical Heritage Society MHS 3426 (Ly-rita SRCs 67 is the British release). Most import specialists carry the 1978 Sir Charles Groves/Liverpool Philharmonic disc of Nos. 8 and 9 (HMV ASD 3486), and No. 22 with the Leicestershire Schools Symphony Orchestra under Laszlo Heltay, was issued in 1975 on British CBS 61612. The remaining disc documentation takes the form of airchecks from BBC broadcasts issued on the Aries label (P.O. Box 126, Reseda, Calif. 91335). First and foremost of these is the rare and thrilling Aries disc of Nos. 10, 11, and 12, which rivals the Mahler Eighth in vastness, conducted by Sir Adrian Boult (LP-2601). The other Aries discs give performance credits under a variety of conductorial and orchestral pseudonyms, which decoded turn out to be: Royal Philharmonic/Myr Fredman for No. 8, London Symphony/Eduard Downes for No. 14 (LP-1603); Royal Philharmonic/Myr Fredman for No. 9, BBC Symphony/Norman Del Mar for No. 12, and University of Illinois Symphony/Bernard Goodman for No. 23 (LP-1604); New Philharmonia/Leopold Stokowski for No. 28 (LP-1607); New Philharmonia/Stanley Pope for No. 3 (LP-1617). The sound in the Gothic Symphony is magnificent, but it is highly variable in most of the other Aries issues. Readers interested in learning more about Brian's unjustly neglected music might look into Malcolm MacDonald's recent two-volume study, The Symphonies of Ha'vergal Brian (Taplinger, 1978).

RECORDING OF SPECIAL MERIT
CARISSIMI: Cantatas. Aprivi, Inferni; No No Mio Core; Deh, Memoria; Bel Tempo per Me Se N'Andà; In un Mar di Pen-
sieri; V'Intendo Occhi; Suonerà l'Ultima Tramà. Amor Mio. Che Cosa è Questo? Martyn Hill (tenor); Robert Spencer (lute); Trevor Jones (viola da gam-
ba); Christopher Hogwood (harpsichord, organ). L'OISEAU-LYRE DSLO 547 $9.98.

Performance: Fantastic
Recording: Beautiful

The cantatas of Giacomo Carissimi (1605-1674) stand midway, stylistically as well as chronologically, between those of Claudio Monteverdi and those of Alessandro Scarlatti. Carissimi's settings are a run-on mixture of simple recitative, ariosos that use coloratura and sequence, and formal arias. Through his simple alternation of these three styles, Carissimi captured the mood of the poetry he used and gave his texts powerful settings.

In order to perform these works effectively, a singer must have a wide range, mastery of coloratura, the ability to shift rapidly from style to style, a sense of word colora-
tion, and a sense of overall drama to mold the brief musical sections into a larger uni-


ty. Martyn Hill has all of these qualities as well as a beautiful, high voice. His perfor-
mance here is not only technically excellent but musically effective and dramatic. I might add that is a pleasure to hear this music sung by a real tenor rather than a counter-tenor. The emotional impact is somehow much more immediate.

The realization of the figured bass here is a model of good taste. The accompaniments support the singer rather than competing with him, and just the right coloration for each passage is achieved by a judicious use of organ, harpsichord, and lute supported by the gamba. Altogether, this album is ex-
tremely important because it shows us an aspect of Carissimi different from what we have come to expect. Those who know his oratorios for larger forces will be amazed at his powerful treatment of sustained works for solo voice. It is therefore especially un-
fortunate that texts and translations are not provided with this release.

S. L.

CHOPIN: Piano Concerto No. 2, in F Minor, Op. 21; Andante Spianato and Grande Polonaise, Op. 22. Krzysztof Zimmerman (pi-
ano); Los Angeles Philharmonic Orchestra, Carlo Maria Giulini cond. DEUTSCHE Grammophon 2531 126 $9.98, © 3301 126 $9.98.

Performance: Extrovert
Recording: Uneven

Contest winners sometimes turn out to have little in the way of staying power, but Krysz-
tian Zimmerman, winner of the Polish Chopin Competition a few years ago, has main-
tained his reputation splendidly through a heavy and regular concert and recording schedule. His recordings, not only of Chopin, but of Mozart and Brahms too, show us a real pianist and a real musician, plucky, personable, and individual. He gave us, not long ago, a Chopin E Minor Concerto on the level of Pollini's early one, and this new recording of the F Minor, if it does not leave the competition behind, is still well worth hearing. In brief, Zimmerman offers an ex-
travert performance with brilliant finger-
work and a goodly number of dramatic "clangs." It's not the way I personally pre-
(Continued on page 76)
You may not realize it, but you've only been listening to music in two dimensions. In fact, owners of the most sophisticated systems utilizing the latest enhancement techniques are also only hearing two-dimensional sound, totally lacking the missing third dimension, Omnisonic Imagery™. Even owners of the most modest stereo systems will recognize the 801 Omnisonic Imager™ as one of the most significant improvements in music reproduction in years. This advance, available after extensive research by Omnisonix in the field of psychoacoustics, is intended to provide the enjoyment and feeling of live musical performance. To vastly upgrade the performance of your stereo system, simply connect the 801 to the tape or preamp input/output jacks and listen to clear, distinct sound images that seem to surround you, even while moving about. In fact, the impact is so great that the sound seems to come from outside the speaker plane, often overhead and to the rear. Your home virtually becomes a concert hall.

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CIRCLE NO. 41 ON READER SERVICE CARD
SOME time around 1718, the Neapolitans, previously mad for Alessandro Scarlatti's operas, lost interest in his music, and the composer seems to have packed up and moved to Rome. If Scarlatti had been an Englishman or a German or a Frenchman, Scarlatti was one of the greatest opera composers who ever lived and one of the most influential as well, but he had actually outlived his own fame by the time of his death in 1725. In his years in Rome, he continued to write and produce operas—his fin-

est and most developed works, according to some—but also, fittingly, he wrote sacred music. One of his patrons was the Cardinal Acquaviva, who had some connection with the Church of Santa Cecilia in Trastevere—a venerable structure that goes back to Roman times and can still be visited although it lies a bit off the regular tourist track. The good Saint Cecilia was a noble Roman lady who is supposed to have lived and died for her religion on the very site of the church and who, by some mysterious process, came to be regarded as the patron saint of music. What better occupation for the greatest living Italian composer than to write a Mass in her honor for performance at her church?

It's a beauty. Edward J. Dent, one of the first modern writers to take up Scarlatti's cause, called the "St. Cecilia Mass" a "worthy ancestor of the great masses of Bach and Beethoven." He meant the B Minor Mass and the Missa Solemnis, and I agree. Its long, soaring lines; its concertante settings of orchestra, choral blocks, and graceful, expressive solo lines; its contrapuntal skills; its sustained harmonic movement; its qualities of invention, seriousness, and even scope; its gorgeous Baroque elaboration; and its intensity of expression are all features in which Scarlatti cedes nothing to Bach. In fact, in one area, dramatic continuity and integration, he actually excels all his contemporaries. For example, the Gloria is a 231/2-minute piece that integrates various tempos, solos, a fugue based on plainsong, and a recurring series of choral acclamations and binds the disparate sections together in the most intensely dramatic way. Much of this is extremely forward-looking, but some of it looks back. Scarlatti wrote polyphonic Masses patterned after the great sixteenth-century composers, and in the St. Cecilia Mass he consciously tried to amalgamate the very old and the very new—most notably in the beautiful and exceptional final Agnus Dei, which is also based on the plainsong and treated with all the skill (and something of the manner) of a Renaissance contrapuntist. Bach also did such things, but for a parallel case of a conscious mixing of the ancient and the very modern you have to turn to Beethoven's late counterpoint.

ARGO has given us a new recording of the work, a very beautiful performance in the finest Olde English Olde Musick manner. It's hard to quarrel with it, even though I rather doubt that any eighteenth-century Italian performance—no matter how eighteenth-century and how polished—would have been quite so sweet, quite so polite. And frankly, authentic or no, I'd like to hear it sung just once by women instead of boy sopranos and altos. There is a slight provincial quality to this performance, lovely and elegant as it is. But in nearly all respects that count it is affecting and lovely—and by no means lacking in vigor, and expression. The technically gorgeous recording was made at St. John's College in Cambridge, England. It is a worthy tribute to the patron saint of music and a must for anyone who loves the Baroque and wants to deepen his understanding of Baroque music. —Eric Salzman

A. SCARLATTI: St. Cecilia Mass. Elizabeth Harwood, Wendy Eathorne (sopranos); Margaret Cable (contralto); Wynford Evans (tenor); Christopher Keyte (bass); John Scott (organ); Choir of St. John's College, Cambridge, Wren Orches-

tra, George Guest cond. ARGO ZRG 903 $9.98, © KZRC 903 $9.98.

Alessandro Scarlatti's St. Cecilia Mass
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for the concerto, but there is no question that it works. It is, however, combined here with a not particularly attractive orchestral accompaniment that gets very sleepy in places and a recorded balance that seems to favor the piano but not consistently. Some listeners will like it anyway. For myself, I much prefer the recording by Emanuel Ax, Eugene Ormandy, and the Philadelphia (RCA ARL1-2868), in which Ax is brilliant enough but adds a lyricism way beyond what Zimerman offers, Ormandy provides a far better-shaped accompaniment than Giulini, and the Philadelphia shows the difference between a first-rate orchestra and a lesser one. The filler on the DG disc is the orchestral version of the Andante Spianato and Grande Polonaise, which gets a performance of the same style and quality as the concerto but perhaps takes it a bit better.

—James Goodfriend

COPLAND: Four Piano Blues (see BOLCOM)

CORIGLIANO: Clarinet Concerto (see Best of the Month, page 56)

DVORAK: Piano Quartets, Opp. 23 and 87 (see Best of the Month, page 56)


Performance: Excellent

Recording: Tremendous presence

Hindemith wrote his first two organ sonatas in 1937 and his third in 1940, they directly preceded and followed his immigration to this country. The music is excellent, vintage Hindemithian neo-Classicism, here played on a modern neo-Classical Flentrop organ in Linz, Austria. Elisabeth Ullmann is a good organist, and the digital recording has startling presence.

E.S.

RECORDINGS OF SPECIAL MERIT

LISZT: Piano Sonata in B Minor; L'Esprique du Dante; Concert Paraphrase on the Quartet from Verdi’s “Rigoletto.” Daniel Barenboim (piano). DEUTSCHE GRAMMOPHON 2531 271 $9.98, © 3301 271 $9.98.


Performances: Elegant

Recordings: Exceptional

In more than a quarter-century in the recording studios, Daniel Barenboim appears to have had only one previous encounter with the music of Liszt, an especially fine performance of Les Préludes by the Chicago Symphony Orchestra under his direction (Deutsche Grammophon 2531 054). One might not have thought of him in connection with Liszt’s piano music, but, as these two records make brilliantly clear, that would have been a big mistake. It is rather late in the day now for anyone to regard Liszt as a mere concocter of showpieces.
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"Truth in Listening"
In the B minor Sonata Liszt provided quite a bit of drama, and Barenboim makes the most of it, in part by resisting what must be at times the overwhelming temptation to make still more of it. His playing suggests both effortlessness and passion, refinement and flair, and nothing less than total identification with the material. Part of that identification is an unutterable sense of proportion and momentum, similarly manifest in the incredibly alive performance of the so-called Dante Sonata, from the Second Year of the Années de Périénage, and in the contrasting intimate Petracch Sonnets from the same collection. The latter group Barenboim achieves an Innuendigkeit beyond even what Kempff gave us in his early-Fifties recording: he seems to be playing for his own delight and finding special pleasure in Liszt’s most delicate effects. Elegance is no less gratifyingly apparent in the smaller and more easily sentimentalized Consolations and Liebestraum No. 3, both models of clarity and aristocratic grace with which their Schubertian links clear. The virtuoso workout on the Rigoletto Quartet, too, makes its brilliant effects with great musical sense. The realistic reproduction of the piano, in which the bass is exceptionally rich but never soupy, does full justice to the masterly performances. R.F.

SIBELIUS: Six Impromptus, Op. 5; Sonata in F Major, Op. 12; Six Finnish Folk Songs; Kyllikki, Op. 41. Erik T. Tawaststjerna (piano). Bis LP-153 $10.98 (from Qualiton Records, Ltd., 39-28 Crescent Street, Long Island City, N.Y. 11101). Performance: Authoritative. Recording: Excellent. This is the first of a planned six LPs containing all of the more than a hundred pieces Sibelius wrote for solo piano, and it features the first complete recordings of the Op. 5 Impromptus as well as the hitherto little-known set of Finnish folk-song transcriptions dating from the time of the Violin Concerto. The Impromptus, Sibelius’ first published work for piano, display from the first bars a distinctive musical personality with a genuine bardic touch. Of particular interest are Nos. 2 and 3, both endowed with a strong folk feeling and containing at various points elements that were to find their way into En Saga and the Third Symphony. The six folk-song arrangements, for the most part, of almost Webernian brevity, and Nos. 4 and 5 have a Bartókian intensity and boldness. The Op. 12 Piano Sonata has been criticized as being “unpianistic,” and it is true (Continued on page 82)
WHY ONLY SONY WINDS UP WITH FULL COLOR SOUND.

Strangely enough, some of the things that make Sony Full Color Sound sound so terrific are things you can’t hear. Such as Sony’s unique experience and technical achievement. Sony makes both tape and the equipment that plays it. So Sony’s experience with tape recording is unique among major tape manufacturers. After all, you’d better know all there is to know about tape decks before you make a tape. Sony does.

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Our Sony SP mechanism is actually 10 times more trouble-free in lab tests than our old conventional mechanism. And the increase of friction after 200 “torture-test” windings and rewinds has been reduced by nearly ⅔!

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EVERYBODY (well, almost everybody) knows about the "New York School" in painting: Pollock, Kline, Rothko, and all the abstract expressionists who dominated the painting scene in the period after World War II. Two new releases from New World Records raise the question of whether there was an equivalent New York School in new music. The answer is yes, but the case is not so simple. There were, in fact, two or three different postwar New York schools in music, and their divergent influences can be considered to be at the root of today's division between the so-called "uptown" and "downtown" styles (see my review of music by young composers Tobias Picker and Ingram Marshall in the February issue).

For some people, the New York School in music consists of John Cage and his disciples and followers—a repertoire of open-form, performance-practice music of an openly anti-European bent. For others—such as Jeffrey Kresky in his notes for the New World album by the chamber group Parnassus—the New York School is embodied in Elliott Carter, Milton Babbitt, and other American inheritors of the European tradition. Two of the major pioneer figures in this school were actually transplanted Europeans: Edgard Varese (who influenced the Cageans as well) and Stefan Wolpe, three of whose works are included on the two releases under consideration here.

Wolpe was born in Berlin in 1902, came to this country in the late Thirties, and was settled and active in New York City during the last years of his life (he died in 1972) when he developed his best-known and most influential late style—a kind of flashing, fantasy serialism that reflected the imposing personality of a dynamic, tortured soul. Wolpe's music never reached a very large public, but its cause was taken up by young composers Tobias Picker and In

New Music: The New York School(s)

 Mario Davidovsky

thus belong to a still later age group—the prize-winning generation, we might call it. Their correct and efficient work fills out the new-music performing repertoire but is very little known outside the circles of initiates, even among contemporary-music audiences. Lundborg's music, more connected and rhythmic than Olán's, suggests new directions, but it is too careful and too concerned with elegance to make any bold moves.

Arthur Berger, two of whose works share a disc, is, with two of Wolpe's, not a composer one would ordinarily associate with any New York school, although he was actually born in the city. His earlier work was neo-Classical, but since the late Fifties his music has become increasingly serial. The pieces here are serious, solid work from the Sixties: some crunchy piano pieces of 1969, brilliantly played by Robert Miller, and a more graceful septet of a few years earlier.

The recordings on the Berger/Wolpe disc are reissues, having originally appeared in the ambitious and excellent new-music series organized some years back by Acoustic Research. They are all excellently played and recorded. The Parnassus recordings are all new, everything again excellently played; oddly, though, considering the source (New World records tend to be rather dry, sub-satisfactory recordings), the album lacks certain basic information, notably dates of composition.

—Eric Salzman


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MAY 1981

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Performance: Outstanding

Recording: Lively

VIVALDI: Sacred Music, Vols. 5 and 6. Dixit Dominus (RV 594); Stabat Mater (Continued on page 86)
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By far the finer of these two new albums is the Philips. The choral and orchestral sound is brilliant and clear, and the soloists are all top-drawer. Vittorio Negri’s approach is vital and dramatic, making the most of Vivaldi’s driving rhythms and stark contrasts. The centerpiece of the collection is the Introduzione al Gloria and Gloria, a gigantic composition in which a solo cantata for contralto serves as an introduction to a full setting of the Gloria for soloists and chorus. In the version here, the first movement of the Gloria is dovetailed with the final movement of the cantata, giving the music an unusual continuity and strong unity. The fiercely difficult vocal writing in the cantata is beautifully handled by Linda Finnie. The Dixit Dominus, likewise preceded by a flashy introduction, finds soprano Margaret Marshall at her best. Judging from this and previous records, she is one of the finest exponents of Vivaldi’s vocal music singing today. Tenor Anthony Rolfe Johnson should also be mentioned for his excellent work. All in all, this album is a knockout in every respect.

Volumes 5 and 6 of Michel Corboz’s series, bound together here, should really be issued as two separate albums. Volume 5, presumably recorded in Portugal, conveys an ambience so vast and hollow that a long, loud echo blurs everything, making it virtually impossible to distinguish what is going on. Moreover, the orchestra drowns out the chorus. All one catches in this Dixit Dominus is devoted enthusiasm. The Stabat Mater fares a little better thanks to the absence of the chorus. Naoko Ibara’s contralto is a booming one, but her introspective singing style becomes this tragic work. It alone is worth the price of the record.

In Volume 6 we find Corboz conducting the forces of the Bach Festival Chorus and Baroque Orchestra. They perform very neatly and precisely on early instruments, but it is well worth comparing their version of the Gloria with that of Negri. Vivaldi himself made two versions of the work. As I noted above, Negri includes the Introduction; Corboz uses the version without it. Both are effective, but the omission of the Introduzione causes the piece to lose some of its monumental quality. Negri projects, molds, and drives the music to a point of feverish excitement that leaves the listener breathless. Corboz, in contrast, seems to be at the mercy of his musicians. The old instruments produce a clear and delicate sound, and the chorus is very English-sounding indeed. But nothing really happens; politeness is offered rather than projection. The motet for solo contralto, Nisi Dominus, suffers from the same malady. There is nothing to object to, but neither is there anything to get excited about.

S.L.

COLLECTIONS

MONTSERRAT CABALLE: Song Recital. Granados: La Maja Dolorosa. Falla: Tus Ojillos Negros; Oracion de las Madres Que Tienen a Sus Hijos en Brazos. Albéniz: Besa el Aura; Del Salon. Obradors: Del Caballo Mas Sutil; El Molondron; El Vito; Aqueul Sonbrero de Montes. Vives: El Amor y los Ojos; El Retrato de Isabela. Valgame Dios, Que los Anseres Vuelan. Rodrigo: Cuatro Madrigales Anitaurios. Montserrat (Continued on page 88)
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Sonatas for Clarinet

An extraordinarily fine new recording of clarinet sonatas by Poulenc and Hindemith on the small British Merlin label provides more fuel for the running debate on the relative merits of analog and digital techniques. Along with the best recent Philips releases, this one proves, I think, that a flawlessly produced record from an analog master can be every bit as good sonically as a digitally mastered or direct-cut disc. In all releases, this one proves, I think, that a flawlessly produced record from an analog master can be every bit as good sonically as a digitally mastered or direct-cut disc. In many recital favorites but also a few items considered with considerable musical variety. This is an unfailingly delightful sequence of Tchaikovsky, with a fine polyphonic lyrical flow in the opening movement, then a jaunty quickstep, a solemn canon processional, and finally an elegant rondo.

The performances by clarinetist Thomas Kelly and bassoonist Martin Gatt are rhythmically precise where that is called for, always vital, and marked by lovely wind tone in the best British tradition. Leslie Pearson's piano work is similarly first-rate, though his tone seems a bit woody in the Poulenc; I suspect that the fault lies with his instrument rather than his playing or the recording, though the sound is better in the Hindemith. My only serious gripe about this release, in fact, is that my review copy lacked a program-note insert; I hope this will not be the case with copies purchased for $16.98. It should also be noted that the movement titles of the two Poulenc sonatas are transposed on the disc label (they are correct on the liner).

—David Hall

POULENC: Sonata for Clarinet and Piano and Piano; HINDEMITH: Sonata for Clarinet and Piano. Thomas Kelly (clarinet); Martin Gatt (bassoon); Leslie Pearson (piano). MERLIN MRF 80701 $16.98 (from Merlin Records, P. O. Box 80559, Baton Rouge, La. 70898).


José Carreras is evidently in the dramatic-tenor repertoire to stay, and it will be interesting to watch how his career develops from now on. The recital augurs well, though reasons for caution surface here too. The tenor's dark-hued timbre is natural for dramatic roles; combined with the youthful ardor that has always distinguished his singing and with a certain poetic quality he has, it presages future glory for him as Chénier, Calaf, even Canio if the beautifully vocalized and dramatically unstrained "Vesti la giubba" offered here is an indication. The top notes, however, are not effortless enough for such a young singer (the Manon Lescaut and L'Arlesiana arias are audibly effortless), and this could be worrisome. A little more dynamic shading would also be beneficial; there is little true piano in evidence here, but always a formidable concentration on the big climaxes. The overall achievement is impressive nonetheless, and the inclusion of some offbeat arias (all very effective) is laudable. Except for a tendency toward phlegmatic pacing ("Cielo e mar"), Jesús López Cobos provides very fine accompaniments, and the recorded sound is warmly glowing.

G.J.

RECORDING OF SPECIAL MERIT


I don't know how many "New Year's Concerts" from Vienna are on the market by this time, but for me another collection of effervescent waltzes, marches, polkas, and galops is always welcome. This one by the Vienna Philharmonic was recorded complete with audience applause, at the start of 1980, and it should have led to a generally happier year than the one we got. It includes all the familiar ingredients: generous helpings of Schlag in the form of Strauss and Offenbach overtures, merry marches, gals, and offbeat arias (all very effective) is laudable. Except for a tendency toward phlegmatic pacing ("Cielo e mar"), Jesús López Cobos provides very fine accompaniments, and the recorded sound is warmly glowing.

G.J.

RECORDING OF SPECIAL MERIT

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So if you'd like to preserve your old favorites for the years to come, keep them in a safe place. On one of our cassettes.
B E A C H BOY Carl Wilson made goo-goo eyes recently at Wendy O. Williams, lead singer of the controversial Plasmatics. The two arrived, simultaneously, to hype their respective new records on a New York talk-news TV show. Unanswered question: How on earth is Wendy ever going to explain that hairdo to her grandchildren, if any?

Island Records, the quixotic independent that spent the better part of the last decade trying to break any reggae artist other than Bob Marley, is at it again. The company plans to offer a new kind of prerecorded cassette, one with an entire LP on one side of a CrO2 tape and up to fifty minutes blank on the other. Island has already marketed these "One Plus One" cassettes in England and hopes to sell them here for about $5.98, although there has been fierce opposition to them at home. A major British

I nternational life of jazz saxophonist Charlie (Bird) Parker is documented in To Bird with Love, a large book containing more than four hundred photographs, recently published in France. It was a labor of love by graphic designer and jazz enthusiast Francis Paudras, who mortgaged his home to raise the $135,000 necessary to produce the book. According to jazz critic Michael Zwern in an interview with Paudras in the International Herald Tribune, "For an in crowd, it is a valuable historical document. That it was produced in Paris is an illustration of how jazz has always been treated more seriously and with more love in Europe than in its home country." The book costs $127. For ordering information write Societe Wizlov, La Cure, 86310 Antigny, France. If Paudras makes back his investment in the Parker book, he plans to bring one out on pianist Bud Powell.

J ohn Williams (the classical guitarist, as opposed to John Williams the composer and Boston Pops maestro) moonlights, in case you didn't know, in a rock band called Sky, and the group just made a little bit of history. They performed in the first-ever rock concert in Britain's Westminster Abbey. The show, a benefit commemorating the twentieth anniversary of the founding of Amnesty International, was also the first televised musical event held in the church. The BBC plans to produce an international TV documentary, and it should be on American television in time to coincide with the release of the band's forthcoming Arista album, "Sky 3."

B ut can they do Gregorian chant? John Williams (left) and Sky are gathering appropriate repertoire for their 1981 Gothic Cathedral tour.
store chain has refused to stock them, and the general industry consensus seems to be that Island is deliberately adding to the home-taping problem. In a just world, of course, those blank tape sides would all be used to dub other Island Records.

In a related development, the Pretenders' new single, Message of Love and Porcelain, has been released in England as a cassette only and packaged like a flip-top cigarette box. No word yet whether Sire Records, the band's American outlet, will follow suit.

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AUGER, and Rahmme Michael Davis, the trumpet man with Earth, Wind and Fire... Fifties rocker Gary U.S. Bonds (Quarter to Three) has signed with EMI America, and his new album, "Dedication," will be produced, as rumored, by Bruce Springsteen. Stiv Bators, former lead singer with the Dead Boys (he just made his feature-film debut in John Waters' Polyester), has a new album on Bomp, the aply titled "Disconnected." Two-time Stereo Review Record of the Year award winner Tonio K. expects his third Arista album to hit the stores early this summer. Tentatively titled "Too Cool to Be a Christian," it includes such soon-to-be-classic numbers as Bride of the Biker, Russia Doesn't Care About Your Mama, Everything (Including You) Disgusts Me, and an update called Funky Western Civilization (Phase II). Ralph Records, the San Francisco avant-rock label heretofore best known for unleashing the Residents (their "Duck Stab" EP is a personal favorite, though to this day I don't know if it's supposed to be played at 45 or 33 1/2) is about to release another sure-fire chart topper: it's the debut of Renaldo and the Loaf, an LP titled "Songs for Swinging Larvae," Ralph's press release describes the work as "an album of primitive modernism, energetic obnoxious noises, manic high-pitched vocals, and sweet brilliance." I'm not making this up... S.S.

G Racenotes: Sting, lead singer of the Police, the only New Wave band to cop a Grammy this year, has just recorded Bob Dylan's old Shall We Dance? along with the Knack and Southside Johnny have all topped a million units in sales. MCA is distributing Headfirst Records, a new fusion-jazz label. Among the initial releases will be albums by Bunny Brunel (currently Chick Corea's bassist), English organ veteran Brian Auger, and Rahmme Michael Davis, the trumpet man with Earth, Wind and Fire... Fifties rocker Gary U.S. Bonds (Quarter to Three) has signed with EMI America, and his new album, "Dedication," will be produced, as rumored, by Bruce Springsteen. Stiv Bators, former lead singer with the Dead Boys (he just made his feature-film debut in John Waters' Polyester), has a new album on Bomp, the aply titled "Disconnected." Two-time Stereo Review Record of the Year award winner Tonio K. expects his third Arista album to hit the stores early this summer. Tentatively titled "Too Cool to Be a Christian," it includes such soon-to-be-classic numbers as Bride of the Biker, Russia Doesn't Care About Your Mama, Everything (Including You) Disgusts Me, and an update called Funky Western Civilization (Phase II). Ralph Records, the San Francisco avant-rock label heretofore best known for unleashing the Residents (their "Duck Stab" EP is a personal favorite, though to this day I don't know if it's supposed to be played at 45 or 33 1/2) is about to release another sure-fire chart topper: it's the debut of Renaldo and the Loaf, an LP titled "Songs for Swinging Larvae," Ralph's press release describes the work as "an album of primitive modernism, energetic obnoxious noises, manic high-pitched vocals, and sweet brilliance." I'm not making this up... S.S.
The Clash: “Sandanista!”

CONVENTIONAL wisdom has it that all two-record albums could be profitably edited down to two sides, and though you and I could argue about the exceptions (“Exile on Main Street,” “The Beatles,” and Rundgren’s “Something/Anything,” among others, get my vote) the point is generally well taken. Some groups, in fact, haven’t enough worth saying to sustain two sides of a 45, let alone a double album. So what are we to make of “Sandanista!”, a new three-record offering from the Clash? Granted, this is a group that has something to say, but is it worth saying at this length? Do they have the musical resources to get away with it? In short, is this great rock-and-roll or just chutzpah?

Giving a little credit for good intentions, I’d say probably the former, maybe a little of the latter. The realities of the music business, the state of rock-and-roll, and the larger social and political climate all being as shaky as they are (how long will it be before we see some “Don’t blame me, I voted for Anderson” bumper stickers?), the mere fact that a rock band is trying to fly in the face of all that, to “raise a feeble little protesting voice,” is almost, well, inspirational. In that sense, the Clash is very much a Sixties band. Their youth, their naivety and idealism, their lack of polish—more and more these qualities remind me of the early Bob Dylan, and I’m sure the band sees its role as at least vaguely analogous, the Bohemian face of punk rather than the Proletarian one. But the posture is an anomaly. Times have changed since the days when a popular entertainer could be called “the voice of a generation” without inspiring derisive laughter. For all that, the Clash’s politics are just as muddled as anybody else’s. It may take some kind of commitment (or stubbornness) to get a major U.S. corporation to release a bargain-price album named after a bunch of left-wing South American guerrillas, but it is, after all, merely a gesture, and the album is not particularly instructive about the realities of Nicaragua’s internal affairs (another Sixties parallel, of course: the unmistakable Whiff of Radical Chic).

But intentions count for only so much; there are any number of untalented bores on the side of the angels of your choice. The real issue with “Sandanista!” is the music. Is it any good? Yes it is—mostly—very good music indeed. True, a lot of it is filler, the kind of written-in-the-studio stuff we would dismiss as a hopelessly display of superstar arrogance if it came from anybody else. What saves it all is the Clash’s passionate commitment. This is a band seriously testing its limits, growing before our ears, so success or failure is not what matters. What matters is the unmistakable imprint of living, breathing, feeling human beings that informs these three records. Like the best rock-and-roll since Elvis I, and unlike so much of what is offered to the public these days, “Sandanista!” is “folk music” in the truest sense of the phrase. Think of these songs, then, as field recordings.

Once again, as with “London Calling,” the Clash is trying to show it’s not limited to whatever genre one might want to pigeonhole it in, and the variety of styles essayed on “Sandanista!” is impressive. They tackle old soul-jazz (Mose Allison’s “Look Here”), Motown (Hitsville U.K.), reggae and dub (all over the place), straight rock-and-roll (Somebody Got Murdered), rockabilly (The Leader), even something verging on rap disco (The Magnificent Seven). What unifies it all, apart from the “theme,” is the consistent avoidance of slickness, the late-night jam-session feel most of it has—even when you can hear the painstaking overdubs. The reggae stuff, to my ears, is the least successful; the band was more interesting when it was reworking Jamaican music in its own image (Police and Thieves on the first album) than when attempting a purist re-creation. But almost everything else works on some level, and the straight rock in particular is among the most mature, accomplished, and exciting the Clash has yet done.

The set has a major failing it is its very evident ambition. Three records, even of unrelenting brilliance, would be hard to take all at once from anybody, and sorting out the terrific stuff here from the merely good and the fluff is going to take me another month. But I can’t think of another band for whom I’d make the effort. There’s enough obviously first-rate music here to demonstrate that the Clash continues to evolve in ways even their initial boosters couldn’t have foreseen, and that they will likely do so for as long as they want. Their musical potential seems limitless, and if they can’t change the world, it won’t be for lack of trying. The Clash saga is still the most interesting story in rock. It may be the wrong time to be a band with a social conscience, but meanwhile “Sandanista!” is as close as we’re likely to get to an aural Apocalypse Now.

—Steve Simels

THE CLASH: Sandanista! The Clash (vocals and instrumental); other musicians. The Magnificent Seven; Hitsville U.K.; Junco Partner; Ivan Meets G.I. Joe; The Leader; Something About England; Rebel Waltz; Look Here; The Crooked Beat; Somebody Got Murdered; One More Time; One More Dub; Lightning Strikes (Not Once but Twice); Up in Heaven (Not Only Here); Corner Soul; Let’s Go Crazy; If Murdered), The Magnificent Seven; Hitsville U.K.; Junco Partner; Ivan Meets G.I. Joe; The Leader; Something About England; Rebel Waltz; Look Here; The Crooked Beat; Somebody Got Murdered; One More Time; One More Dub; Lightning Strikes (Not Once but Twice); Up in Heaven (Not Only Here); Corner Soul; Let’s Go Crazy; If Murdered).
bum's interior is In Cars, on the theme of the automobile's interior as setting for big events in our lives. Campbell seems sometimes engrossed in a song, sometimes not, exacerbating the lack of cohesiveness. The opening duet is decent but considerably less than Campbell and Tucker can achieve (singing, I mean), and no two people—or twenty people—could breathe much life into the finale, Shoulder to Shoulder. All in all, for whatever reason, it sounds like—to paraphrase Lacy J. Dalton—a hillbilly boy with the blahs. N.C.

JOE " KING" CARRASCO AND THE CROWNS. Joe "King" Carrasco (vocals, guitar); the Crowns (vocals and instrumental). Houston El Mover; Let's Get Pretty; Federales; Nervoused Out; Caca de Vaca; Party Doll; Gimme Sody, Judy; and six others. HANNIBAL HNBL 1308 $7.98.

Performance: Fun Recording: Good

Joe "King" Carrasco and his crew play "Tex-Mex," a simple, bouncy dance music made famous by Buddy Holly. What it lacks in content it makes up for in vigor and hoopla. Holly, of course, went beyond the limitations of Tex-Mex, a regional border stew of styles incorporating occasional Mexican rhythms, country-and-western lyrics and sentiments, and a rock-and-roll overdrive imposed by the success of Elvis Presley in the 1950s.

Carrasco's vocal mannerisms show definite traces not only of Holly and Presley but also of Mick Jagger, Domingo "Sam" Samudio of Sam the Sham and the Pharoahs (Woolly Bully), and even Question Mark and the Mysterians (99 Tears), both of the latter groups from the 1960s. Carrasco's band is young, a bit sloppy, and somewhat juvenile (they sing a lot about sex, but I get the impression that it's something they've read about somewhere). I'm not sure whether Federales ("Bring my baby back to me") is deliberate or accidental parody, and they rush through Buddy Knox's Party Doll, a Tex-Mex anthem, as though it's required but no longer inspirational. Still, they're fervid and frivolous and occasionally funny. And the album cover is a triumph. It's a gaudy and wonderfully dizzy pastiche of all the garish and vapid small-label albums of the 1950s, with some deadly and delicious contemporary barbs tucked in the corners. J.V.

DAVID ALLAN COE: Invictus Means Unconquered. David Allan Coe (vocals, guitar); vocal and instrumental accompaniment. Rose Knows; Ain't It Funny the Way Love Can Do Ya; The Purple Heart; London Homesick Blues; Stand by Your Man; I Love Robbing Banks; and four others. COOLUMBIA JC 36970 $7.98, JCT 36970 $7.98, JCA 36970 $7.98.

Performance: Good Recording: Good

David Allan Coe seems markedly less feisty here than usual, which may be good since this is one of his better albums. I think, though, that it's his growth as a singer that's the main factor. He has stopped imitating other people and may even have stopped hiding behind various poses (even though the utterly unrepentant I Love Rob-
Car Stereo

Two Tons: "Backatcha"

Novelty may suffice to attract attention in the music business, but in the long run only talent can sustain it. A case in point is provided by Izora Armstead and Martha Wash, a pair of hefty soul singers who pack more oomph to the bounce than any act since the portly Peters Sisters back in the Fifties. Under the name Two Tons o' Fun, Armstead and Wash emerged from the gospel underground in 1976 as back-up singers for Sylvester, the sequined "queen" of disco. Ridding a wave of camp into a recording contract, last year they released an exciting but inconsistent debut album. They've now shortened their name to just the Two Tons, but their second album, "Backatcha," proves their talent is as substantial as their girths. No longer trying to squeeze into a disco format, the Two Tons give free rein here to their natural blues and gospel impulses in a broader pop-soul framework.

On "Backatcha" the Two Tons growl out their lyrics with surging energy, romping through the music with a joyous abandon. Armstead is the better growler. Wash the sweeter singer. And the album's real peak comes when they engage their dissimilar voices in shouted harmony on the knockout cut Your Love Is Gonna See Me Through. The instrumental support throughout is inspired and sufficiently robust to bear up the weighty vocals. The Two Tons are no longer just promising. "Backatcha" is a thoroughly enjoyable album that will fill your ears with pleasure from the first track to the last.

The Two Tons: Backatcha. The Two Tons (vocals); vocal and instrumental accompaniment. Never Like This; I Depend on You; Your Love Is Gonna See Me Through; It's True I Do; Can't Do It by Myself; Cloudy with a Chance of Rain; I've Got to Make It on My Own; I've Been Down. Fantasy/Honey F-9605 $7.98, © 5-9605 $7.98, © 8-9605 $7.98.
seem to have enough juice. I found myself wishing Cooer would turn to the acoustic guitar once in a while, as the tight little no-frills electric sound this group has—even though it would be a blessed relief in most bars—doesn’t take full advantage of the digital recording equipment; there’s a minimum of overtones and harmonics when electric instruments are used in this staccato style and are knitted together this tightly. Cooer sings well, though, even if he did cast Speedo in too low a key, and he does some tasty instrumental work. It’s better than most albums, just not better than most Cooer albums.

N.C.

RECORDING OF SPECIAL MERIT

GAIL DAVIES: I’ll Be There. Gail Davies (vocals, guitar); vocal and instrumental accompaniment. I’ll Be There, It’s a Lonely, Lovely World; Mama’s Gonna Give You Sweet Things; Kentucky; Honky Tonk Waltz; Farewell Song. Object of My Affection; Get That Feelin’ Inside; and three others. WARNER BROS. BK 3509 $7.98. © M 3509 $7.98, © M 8 3509 $7.98.

Performance: Excellent

Recording: Very good

This is the second straight outstanding album from Gail Davies. This one is a little less folkie-sounding and a little more country-rock-sounding than the last one, but such terms don’t really do Davies justice. The thing about her is the gentle but insistent streak of individuality that cuts through everything she does. The clean-slate attitude she brings to what people call “country” and “rock” boils off genre prejudices and gets you to listen to a song instead of a category. “I’ll Be There” has five more examples of what a sure-handed writer she is, and it abounds with examples of how she gets sparkle out of studio musicians from Nashville and L.A. It also provides a fine new batch of evidence of her knack for finding good, neglected, and sometimes old songs that might as well have been written for her: Paul Craft’s Honky Tonk Waltz; vocal and instrumental accompaniment. I’ll Be There; It’s a Lovely, Lovely World (1952), a hit for Carl Smith (1976), Boudeleaux Bryant’s It’s a Lovely, Lovely World and L.A. It also provides a fine new batch of evidence of her knack for finding good, neglected, and sometimes old songs that might as well have been written for her: Paul Craft’s Honky Tonk Waltz; vocal and instrumental accompaniment. I’ll Be There; It’s a Lovely, Lovely World (1952), a hit for Carl Smith (1976), Boudeleaux Bryant’s It’s a Lovely, Lovely World, and L.A. It also provides a fine new batch of evidence of her knack for finding good, neglected, and sometimes old songs that might as well have been written for her: Paul Craft’s Honky Tonk Waltz; vocal and instrumental accompaniment. I’ll Be There; It’s a Lovely, Lovely World (1952), a hit for Carl Smith (1976), Boudeleaux Bryant’s It’s a Lovely, Lovely World.
"NAME is an embarrassment when you're growing up and going to school and want to be like the other kids," Roseanne Cash says. "It's a hazard. I guess that's why I was going into acting; something that I started. But I suppose it was inevitable that I would be doing what I'm doing...

Like a future preacher wrestling with The Call, Roseanne Cash went through a period of jousting with the inevitable, alternately repelled by and attracted to the idea of putting her chips in the same pot, so to speak, with those of her famous father, Johnny Cash. In the end she capitulated, as the heroine does in her new album, "Seven Year Ache," and she says she's happy with what she's doing now. She sounds like it; our conversation is frequently interrupted by chuckles. But there were scary times.

Big John, she says, "was bigger than life to us, because of his image and because he was not home a lot. 'Conquering hero' is a term for it, because of his image and because he was not home a lot. 'Conquering hero' is a term for it. But I left with him the day I was ready to leave." That was in 1973. Her mother, Vivian Liberto, and her father had been separated for many years. Roseanne had passed her teenage years as president of the local Beatles Fan Club, her taste being shaped by "the same stuff most kids listened to"—except that she was also inordinately attracted to two "old" folkies, Tom Rush and Eric Andersen. What Johnny came to get her to do was join his road show, at first as a launching pad for his daughter. It was very tight clique, she says of the Vanderbilt University with an English/drama double major. She didn't get involved in any theatrical productions. She was shy; her shyness a year or so later was to cause her to be at a place where she would marry, songwriter/singer/producer Rodney Crowell. "It was a very tight clique," she says of the Vanderbilt theatrical situation, "and I was very much a loner."

But acting did—still does—appeal to her, so the following year she went to Hollywood to study in Lee Strasberg's school ("I didn't study with him," she says, "although I audited his course—he was terrifying"), and she now says that's the best thing she ever did.

Six months later, though, she was in Germany, visiting a friend, and crossed paths with some people from Ariola Records. That led to making demo tapes, with Crowell's help, and that led to making an album in Munich—an experience that met her description of falling on one's face.

"There was a staff producer and he had a totally different idea of how to approach music, just the opposite from mine, and we fought the whole time," she recalls. "He favored very stiff arrangements." Roseanne was also less than pleased with her own songwriting efforts ("pretty immature") and had misgivings about making an album.

"I was terrified," she says. "I thought, God, there's no turning back after this. There's no going back to acting school."

And listening to the album made her temporarily conclude that she couldn't sing at all, however insistent fate wanted to be about it. "Self-confidence is an elusive thing," she says. "It only comes after experience, I think, after a long time of working with your own abilities and becoming comfortable with them."

But Rich Blackburn of Columbia Records liked one cut in the German album, Baby You Better Start Turning 'Em Down, so much that he wanted to release it, uptight Teutonic arrangement and all, as a single. "Rodney and I went to him and said please don't do that, let us re-do it, give us a chance—and that led to an album deal," Roseanne says. "He just let us alone for two months and we delivered the album. It was a big risk. He told us later he was really scared."

The album they delivered, "Right or Wrong," did moderate business but it was an unqualified critical success. It had no nonsense feel to it, with Roseanne's warm, moist, round tones supported by strikingly clean and lyrical electric-guitar fills and breaks before arrangements that touched bases with Austin and Los Angeles but were captives of neither. Hearing that one reassured Roseanne, "I feel I've established the credibility," she said, "of the importance of my lineage is decreasing in people's minds, in their critical minds."

That didn't make the creation of "Seven Year Ache" any easier. In fact, it may have made it more difficult, at least in Roseanne Cash's critical mind. "I was finally clearly seeing my own abilities and potential instead of making things up to myself about what I could be," she says. "There came a point where I thought I couldn't do it. I was ready to quit. I said, "I'm out of my league." It shattered me, really, but after that I got to a place where I could look at myself clearly. Before, I think, I was pretending some, because I was scared. I always knew I wasn't a great technical singer but it was just confusion about how much I could do. I think I know now, and so I feel more at ease and accept the things I can't do. I'll never be a great harmony singer, and that's something I always wanted to do and pretended to myself that I could do. I finally accepted that that's not going to be my gig. But then I know the things I can do too.

Some might see her as symbolically closing the circle now, as she and Rodney are moving back to Nashville, although she was also less than pleased with her own songwriting efforts ("pretty immature") and had misgivings about making an album."

"It's mostly because of the kids."
don't want to raise them in L.A." They have a year-old baby girl, Caitlin—Roseanne couldn't tour to back up "Right or Wrong" because she was pregnant at the time—and Rodney's four-year-old daughter, Hannah, from a previous marriage. Roseanne did put a major-cities tour together to go with the release of "Ache" and, now fully committed, is trying to write enough songs for her next album "to keep my producer." That, of course, is Crowell: "He told me he'd only produce my next one if I wrote at least four of the songs."

Seems reasonable to me. The two she wrote for "Seven Year Ache," the title song and Blue Moon with Heartache, are the best ones in it. Seven Year Ache has an infectious shuffling rhythm, an instrumental hook (which Rodney thought up) that strings the basic melodic idea into a seam-

Three of the other songs that didn't fit—"Wrong" because she was pregnant at the time—and Rodney's four-year-old daughter, Hannah, from a previous marriage. Roseanne couldn't tour to back up "Right or Wrong," and those are a couple of fine downers. "Seven Year Ache" doesn't have as many highlights as "Right or Wrong," but it is a worthy second American-made album. It has the same kind of honest, musical arrangements, and it gives Roseanne several good settings for what Crowell says (and I agree) is her best feature, the ability to produce those lovely, warm tones (Bobby Bare describes hers as "one of those wet voices"). More significantly, the album has her daring to try something that she knows could result in a fall on her face.

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**RECORDING OF SPECIAL MERIT**


Performance Excellent

Recording Excellent

I'll say this for the three-man Gap Band: they've packed these grooves with energy. What's more, nothing here ever falls into the predictable. In the album's simplest production, *Nothin' Comes to Sleepers,* lead vocalist Charlie Wilson delivers the lyric refreshingly straight and backed up with nothing but a piano and a horn. And it works! The nice ballad *Yearning for Your Love* has a vocal that is smooth as silk, but a small army of back-up voices and support musicians builds it into an unusually complex and effective structure.

The up-tempo stuff really soars. *When I Look in Your Eyes* is a dance-tempo number, ambitious and terrific. What makes it special is the way the three principals—their singing and their work on guitar, keyboard, bass, and percussion—form a coherent unit in the center of a big production. Sweet Caroline sounds like a song the Beatles might have come up with in their folksy middle years, but it's pitched at a much higher level of intensity. Finally, a bow to the multilevel syncopations—vocal, piano, keyboard—of *The Way,* they never go quite the way they expect you to go. These guys really know what they're doing. And their music is fun to listen to. I.C.

HENRY GROSS: *What's in a Name.* Henry Gross (vocals, guitar); vocal and instrumental accompaniment. *That Someone,* Why Go Falling in Love; Claudette; You're My Ride Home; Back into Your Heart; and five others. CAPITOL ST-12113 $7.98, © AXT-12113 $7.98, © 8XT-12113 $7.98.

Performance Good

Recording: Good

I was partial to Henry Gross' first two albums; Gross seemed to be trying too hard for stardom and tended to be either blasé or strident. But he's much more relaxed this time around, and—whaddaya know, folks?—he's very good.

The dandy of the album is *Why Go Fall* (Continued on page 101)
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**CIRCLE NO. 42 ON READER SERVICE CARD**

**Lani Hall**

Blush. Lani Hall (vocals), orchestra. Where's Your Angel? In the Dark; Come What May; Only You; Strings and four others. A&M SP-4829 $7.98, © CS-4829 $7.98.

**Performance:**

Slick Recording

**Lush**

Lani Hall is presented here in another of her custom-tailored, nipped and tucked, fused-over recordings. This time her repertoire is composed exclusively of songs by Allee Willis (with various collaborators), who also produced. Ungallant to say it, but it's another album by the boss' (Herb Alpert's) wife—which is to say that it has a lot of purchased high style, enough "good taste" to send you straight to a Zappa recording for instant relief, and a cloying musical refinement. It's almost impossible to judge what the real talents of Ms. Hall might be through all of the drapery. The songs are fairly bad, the production obviously expensive, and the singer's talents largely wasted, at least to my ears. It must be very hard for Lani Hall to refuse all of the attention offered in this sort of project, but she really ought to if she doesn't want to end up as a modern-day Norma Shearer.

**P.R.**

**Kris Kristofferson: To the Bone.**

Kris Kristofferson (vocals, guitar); Donnie Fritts (keyboards); Billy Swan (vocal, guitar); Tommy McClure (bass); Sammy Fritts (keyboards); Billy Swan (guitar, vocals); and four others. Columbia J. 36885 $7.98, © J. Z. 36885 $7.98, © J. A. 36885 $7.98.

**Performance:**

Good write, no sing Recording

**Good**

Kris Kristofferson, like most of us, writes better when something is bothering him, unfortunately, he doesn't sing any better. This album, apparently designed to work off some of the feelings attending his split with Rita Coolidge (at least it will be taken that way), has some poignant and well-crafted songs in it, but Kris' vocals are so limited in range and emotional expressiveness that the listener has to do a lot of imaginative reconstruction to appreciate them. **Daddy's Song** (Kristofferson said on some talk show, after the split, that he wanted to be the best daddy in the world), a sort of Jodie and the Kid revisited, walks a fine line between pathos and bathos, alternating between the guilt and agony a father feels when he can't live with his child and a "rational" viewpoint:

**In Love,** which has cosmopolitan lyrics that sometimes approach Noel Coward's mastery of romantic cynicism; the structure of the melody resembles something Paul McCartney might have done in those long-ago days when he worked hard at melodic 

**Back into Your Heart** has an arresting lyric hook ("Put me out of your mind and back into your heart"), and **You're My Ride Home** is a very funny example of that limited but rewarding satiric genre, the expeditious love ballad. **Captain Ralph and His Rocket Rangers** is a so-so item about the hot band in the club that everyone's dancing to, and **Gross'** version of the Everly Brothers' **Claudette** is tapid. But the standouts I've mentioned are well worth buying the whole album for.

**J.V.**
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“Christopher Cross”

In the wake of Christopher Cross' surprising (to some of us) five-way sweep of this year's Grammies, there will no doubt be a spate of mournful pronouncements from the critical left that if this kind of aural Valium is State of the Art for 1980, then the art is bankrupt and why even bother to give awards? This is understandable, perhaps even true. In fact, if you got me alone I'd probably say the same thing.

Which misses the point, even if I'm not sure just what the point is. The fact is that it's not Cross' fault that he and his group ("Christopher Cross" is actually the name of both the lead singer and the band) dominated the Grammies, and, what's more (to paraphrase the truism), people get the pop music they deserve. There are, after all, a lot of acclaimed geniuses making music that is far more pernicious, and they are selling it in larger quantities.

Bantam-weight a talent though Cross may be, he is decently accomplished at what he does, which is to make brainless, catchy, quintessentially Californian pop records—no more, no less. If critics can bend over backwards justifying the Doobie Brothers (whose head honcho, Michael McDonald, is all over Cross' album), then it's the height of hypocrisy to moan about Cross' fluffy appropriation of their sound.

Yes, there are people who make music in a similar vein that is both better crafted and addressed to somewhat weightier subjects (if Cross could rhyme June and moon, I'm sure he would), but that too is irrelevant. People like this stuff, so they buy it. Who, then, is the villain of the piece? Somebody once asked H. L. Mencken why he didn't leave America if he hated it so much, to which he replied, "Why do people go to zoos?" Why have more copies of "Christopher Cross" already been sold than of the last four Clash albums combined? Probably for the same reason that people ride in elevators.

—Steve Simels

CHRISTOPHER CROSS. Christopher Cross (vocals, guitar); the ubiquitous Michael Omartian (producer, arranger, keyboards, background vocals); other musicians. Say You'll Be Mine; I Really Don't Know Anymore; Spinning; Never Be the Same; Poor Shirley, and four others. WARNER BROS. BSK 3383 $7.98, © M5 3383 $7.98, © M8 3383 $7.98.

...there's a freedom you find on your own/that's nearly worth what you pay."

But the singer's unsuccessful effort to hit some low notes calls too much attention to itself. Something similar is true of The Last Time, a song whose economy and near-perfect mating of words and melody recall the glory days of the Bobby McGee era. The shock of hitting the bottom of the barrel and bouncing up slightly with a "to hell with it" attitude is deftly planted in Nobody Loves Anybody Anymore, co-written with Billy Swan, but that too is undercut by the obviously difficult time Kristofferson's having technically. Magdalene (a soft and third-person way of saying "she's going to be sorry I'm gone") has a swinging melody that's easier to sing, and so it is the most impressive cut without being the most impressive song. I tend to value good songs more than good singing... up to a point. Kristofferson seems to be writing so much beyond his vocal equipment that most of this album is beyond that point. N.C.
NICOLETTE LARSON: Radioland. Nicolette Larson (vocals); vocal and instrumental accompaniment. Radioland: Ooee, When You Come Around; and six others. WARNER BROS. BSK 3502 $7.98, © M5 3502 $7.98, © MB 3502 $7.98.

Performance: Suburban r-&-b

Recording: Good

Clean-cut funk is a contradiction in terms. You'd think people who've made several records would know that, but here's another sizable pool of talent wasted on trying to have it both ways. This effort to superimpose a vague r-&-b style over the white, middle-class voice of Nicolette Larson is hurt even more by the fact that only two of the songs involved—Allen Toussaint's Tears, Tears and More Tears and Lowell George's Long Distance Love—are worth the effort anyway. This is a Hollywood High School approach to "cooking." Larson has a nice voice. Somebody should worry more about finding her a song to sing, less about finding her a pose to strike. N.C.

ALVIN LEE BAND: Free Fall. Alvin Lee Band (vocals and instrumentals). I Don't Wanna Stop; The Money and Run; Stealin'; Sooner or Later; Dustbin City; and five others. ATLANTIC SD 19287 $7.98, © CS 19287 $7.98, © TP 19287 $7.98.

Performance: Good, but ...

Recording: Very good

As a guitarist, Alvin Lee is much better than average, though I think he's heard more to his advantage as a sideman rather than lead. He's also a pretty good singer and a fairly good writer, but he's not quite enough of either. All in all, he's a worthy pro but not, I fear, touched with the x factor that turns a talent into a titan. This album is full of good moments, but they never add up to much of a whole. You can listen and enjoy, but at the end I think you'll have the feeling that something's missing. J.V.

LOVERBOY. Loverboy (vocals and instrumentals). The Kid Is Hot Tonite; Turn Me Loose; Always On My Mind; Lady of the 80s; Little Girl; and four others. COLUMBIA JC 36762 $7.98, © JCT 36762 $7.98.

Performance: Decent

Recording: Good

New Wave has become as formula-ridden as glitter rock if not disco, but Loverboy, a new group borrowing a little from Elvis Costello, a little from Cheap Trick, a little from various other sources, makes it at least seem not so bad. The vocals are mixed up where you can hear them and involve some actual, though limited, singing voices. And even though the instruments generally are used in ways that by now are all too familiar to some of us, they do show that the boys are used in ways that by now are all too familiar to some of us, they do show that the boys have, in fact, been stranded in Iowa and would much rather be on a storm-tossed ship, so I couldn't help but give the tune a sympathetic hearing. Hello, I Am Your Heart, written by Dennis Linde, reminds me of the medieval Francois Villon's poem, The Debate Between Villon's ways on My Mind, might even brighten up today's radio programming more than five minutes of silence would—and there's at least one good line (in DOA): "Talked to a brother down in Frisco Bay/He ain't seen nothing there but silicone." The group seems able to see over the stylistic wall it's built around itself, and, all things being relative, that's something. N.C.

MANFRED MANN'S EARTH BAND: Chance. Manfred Mann's Earth Band (vocals and instrumentals). Lies (Through the 80's); For You, Fritz the Blank, Stranded; Hello, I Am Your Heart; and four others. WARNER BROS. BSK 3498 $7.98, © M5 3498 $7.98, © MB 3498 $7.98.

Performance: Very good

Recording: Very good

Either Manfred Mann is easier to listen to nowadays or I'm more receptive than I used to be. Whatever the reason, I'm quite taken by this album. Ordinarily I find Mann's deep-beep synthesizer playing and gloomy material irritating, but this time it somehow goes down smoothly.

Stranded includes BBC weather forecasts for merchant ships while the lyrics, couched in radio terms, begin and end with "Stranded in Iowa." I have, in fact, been stranded in Iowa and would much rather be on a storm-tossed ship, so I couldn't help but give the tune a sympathetic hearing. Hello, I Am Your Heart, written by Dennis Linde, reminds me of the medieval Francois Villon's poem, The Debate Between Villon's

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Heart and Body. The song and the poem have the same plots and sentiments, and the idea is intriguing.

In the late 1960s Mann had an unexpected hit single with Bob Dylan's 'The Mighty Quinn', so he started including one Dylan song, usually semi-obscure, in each album. Now, since his late-1970s hit with Blinded by the Light, Mann seems to be shifting to Bruce Springsteen material. The Springsteen selection here is For You, which, like the Dylan material he chose, is long on lyrics, very short on melody, and which, like the Dylan material he chose, is shifting to Bruce Springsteen material. The album is sort of like once-a-day vitamins: listen to one cut in the morning and you'll be sick and tired of the L.A. sound all day long. Isn't that nice? One wonders why Randy Meisner bothered to get out of the Eagles, since he could have gone on doing more or less the same stuff in the Eagles. Actually, "One More Song" is understated and not unpleasant—on several of the songs Meisner collaborated with Eric Kaz and Wendy Waldman, who've been known to write good ones—it's just that nothing the least bit exciting or unexpected ever happens. The pleasantest moments are in the utterly derivative title song, by Jack Tempchin. None of the others will bother you. That's part of the problem. N.C.

MEREDITH: Lost In His Arms. Meredith d'Ambrosio (vocals, piano); orchestra Baltimore Oriole; Love in Vain; Rip Van Winkle, Alone Together; Blame It on My Youth, Spring Is Here; and nine others. Swinging, Inc. SPR 1980 $6.98.

Performance: "Sothern" exposure Recording: Good

Meredith d'Ambrosio sounds enough like Jerri Sothern to be Jerri Sothern. Almost. What's missing is that mysterious note of urgency Ms. Sothern used to put into even the most unlikely material—remember her transfixing Sand in My Shoes? Meredith's pretty good on her own, however, and you'll probably find a lot to enjoy here. I particularly like her measured Spring Is Here and the sad coolness that permeates I Get Along Without You Very Well. P.R.

RICK NELSON: Playing to Win. Rick Nelson (vocals, guitar); instrumental accompaniment. Almost Saturday Night; Believe What You Say, Little Miss American Dream, The Loser Babe Is You, Back to School Days; It Hasn't Happened Yet; and four others. Capitoll SOO-12109 $8.98, © 4X00-12109 $8.98, © 8X00-12109 $8.98.

Performance: Another white man's burden Recording: Good

Through much of this, Rick Nelson tries to get back to the roots he wishes he had. He was in on the beginnings of rock-and-roll, technically, but those of us who were there at the time regarded him as a lightweight and a dilettante—in no small part because he was bland (read white) enough to seem no threat to our parents, no small thing with those days (though we did admire his knack for finding super-catchy tunes), and a lot of it strikes me as merely a bit of feedback guitar and hard-hit drums superimposed on the basic Ricky Nelson shtick. Still, there are those inevitable catchy tunes, and there are a couple of cuts, at least, in which Rick, growing older gracefully, and not Ricky, is featured. He does not have much of a voice for rock, to get down to the basics, but he does have one capable of some nice nuances. Almost Saturday Night is one rocker here that uses the best of his vocal qualities, but—catchiness aside—it doesn't have much company. Although this isn't bad overall, considering its competition, a more grown-up approach and a more lyrical set of songs would serve him better. N.C.

ROSE ROYCE: Golden Touch. Rose Royce (vocals and instrumental); instrumental accompaniment. And You Wish for Yesterday; I Wanna Make It with You, Funkin' Around; Golden Touch; Love Is in the Air.
Blow Your Life Away, Trying to Get to Me. Precious to Me: I Found a Love; and four others. BOARDWALK FW 36996 $7.98, © FWT 36996 $7.98.

RECORDING OF SPECIAL MERIT

THE SEARCHERS: Love’s Melodies. The Searchers (vocals and instrumentals). Silver, Infatuation; She Made a Fool of You; Almost Saturday Night; Little Bit of Heaven; You Are the New Day; Love’s Melody; Everything but a Heartbeat; and four others. SIRE SRK 3523 $7.98, © M5S 3523 $7.98.

Performance: Excellent
Recording: Very good

Phil Seymour was the lead singer of the now-defunct Dwight Twilley Band, and on this, his first solo outing, he’s simply terrific. I haven’t heard such a commanding, seasoned, and tasteful mainstream rock singer in many a day. Seymour is nobly aided by his musicians; unlike most California recording dates, the album has a virile sound, with the easy professionalism and laid-back feeling of a Memphis or New York session from the late 1960s.

Nearly all the material was written by Seymour and his band, with a couple of entries from Twilley, and they are all sturdy and serviceable. Of special note, though, is Bobby (I Fought the Law) Fuller’s Let Her Dance. Fuller died young and is remembered, occasionally, for his one hit. But he wrote straight-ahead songs in the post-Buddy Holly Tex-Mex style, and Seymour and his band revel in this example. Yahoo! J.V.

SHALAMAR: Three for Love. Shalamar (vocals); instrumental accompaniment. Full of Fire; Somewhere There’s a Love; Make That Move; Pop Along Kid; This Is for the Lover in You; Some Things Never Change; and two others. SOLAR BZL1-3577

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Performance: Cool and confident
Recording: Sparkling
Perseverance is paying off for Howard Hewett, Jody Watley, and Jeffrey Daniel. Hits they've had, from Second Time Around to the title cut of Sockeye. But their music has not been distinguished, and the high energy their live performances have given off has never been captured on discs. Their new album is a giant step forward, however. It contains only one really topnotch number: Attention to My Baby is a good new song sung solo with an exciting tension that is perfectly captured in the strutting dance tempo. But there are lovely musical touches everywhere: the piano accompaniment to two dreamy ballads, Somewhere There's a Love and This Is for the Lover in You; a vocal arrangement for Some Things Never Change that is full of pleasant surprises; a nice sense of humor in Pop Along Kid.

A lot of the credit goes to producer Leon Sylvers. He's been careful with Shalamar, giving most of the vocal solos to the stronger-voiced men than to the bland Jody Watley. And he's kept the mood up and the music bubbling. Shalamar, that capable hands, may not break new ground, but it comes over cool and confident.

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CIRCLE NO. 49 ON READER SERVICE CARD

Reprinted from the April 1979 issue of STEREORVIEW.
TOSHIKO AKIYOSHI: Notorious Tourist from the East. Toshiko Akiyoshi (piano); Steven Huffsteter (trumpet); Gene Cherico (bass); Billy Higgins (drums). Soliloquy; Memory; After Mr. Teng; and three others. INNER CITY IC 6066 $7.98.

Performance: Oddly disjointed
Recording: Unsatisfactory

I have ambivalent feelings about Toshiko Akiyoshi’s latest Inner City release. Trumpeter Steven Huffsteter’s playing on the title song is stilted, but that seems to be the way Akiyoshi—who composed all the music and produced the album—wanted it. Certainly Huffsteter is capable of more involved input, as he proved with the Akiyoshi/Tabackin Big Band and, indeed, demonstrates on this set’s second track, Soliloquy. Huffsteter and Akiyoshi herself play nicely if not with great excitement on Hangin’ Loose, but here again I have a reservation: drummer Billy Higgins is recorded too prominently. Akiyoshi goes it alone on Memory, a very pretty tune that’s sensitively rendered—but, alas, on an electric piano with all the character of a celeste. Perhaps poor recording balance is the real fly in this ointment. There is something disturbingly disjointed about this “Notorious Tourist from the East.”

C.A.

BOB BROOKMEYER: Bob Brookmeyer, Composer & Arranger, with Mel Lewis and the Jazz Orchestra. Bob Brookmeyer (trombone); Clark Terry (trumpet); Mel Lewis and the Jazz Orchestra. Skylark; Ding Dong Ding; Hello and Goodbye; and three others. GRYPHON G-912 $7.98.

Performance: Excellent
Recording: Okay remote

This album of brassy big-band arrangements represents Bob Brookmeyer’s first writing efforts in twelve years, and it makes me wonder why he ever stopped. The band, led by Mel Lewis, is perhaps a bit hard around the edges, but there are some good solo spots (although pianist Jim McNeely tends to tinkle a mite too much for my taste). In any case, I long ago found out that one should never judge a big band by a recording made (as this one was) in that closet of jazz called the Village Vanguard. My favorite moment here is Dick Oates’ slightly surrealistic alto solo on Hoagy Carmichael’s Skylark, but there are other highlights to savor. A fine set that will be a revelation to those who have thought of Brookmeyer only as a trombonist. C.A.

RECORDING OF SPECIAL MERIT

DEXTER GORDON: Gotham City. Dexter Gordon (tenor saxophone), Woody Shaw

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RECORDING OF SPECIAL MERIT

Dexter Gordon (tenor saxophone), Woody Shaw

CIRCLE NO. 9 ON READER SERVICE CARD
Weslia Whitfield

WESLIA WHITFIELD is what used to be known as a "song stylist," one of those singers who can take the most dog-eared of popular standards and, with a combination of taste and talent, make every word and note sound as if the whole thing really matters. When she sat on a leather swivel chair enchanting the customers in the Plush Room at the York Hotel in San Francisco last year (she had to sit—her legs are paralyzed as a result of her being shot by some misguided teenagers in 1977), the only embellishment to her sweet, straightforward singing came from a piano.

On her first record, "Lady Love," Ms. Whitfield gets support from piano, bass, and drums and has dubbed in her own background vocals, but she doesn't need much help to put a number over. Her voice is supple and versatile, something like Cleo Laine's if less remarkable in range and power. But it is the warmth of her musicianly approach that carries the day, and you don't need a text to follow every word, even of an unfamiliar lyric. She is particularly effective in ruminative, throbbing items like My Ship, You Go to My Head (it's the first time it's gone anywhere near my head since the days of Dietrich), and Billy Strayhorn's A Flower Is a Lovestruck Thing, though she also displays a perkiness that she dusts off Rodgers and Hart's Mountain Greenery or a forgotten bit of fluff like Them There Eyes. In a letter accompanying her album, Whitfield describes herself modestly as "quite unknown," a situation, what with her April booking at Michael's Pub in New York, that is undoubtedly destined for rapid reversal.

PAUL KRESH

WESLIA: Lady Love
Weslia Whitfield (vocals); instrumental accompaniment. A poppy Day; You Go to My Head; Mountain Greenery; Love May Not Be There; A Flower Is a Lovestruck Thing, One for My Baby/Blues in the Night; But Beautiful; Them There Eyes; If I Should Lose You; Fly Me to the Moon; In Other Words; My Ship; Since I Fell for You. MYOHO P1980 $7.98 (plus 50c postage and handling from Myoho, 1435A 25th Avenue, San Francisco, Calif. 94122).

(Trumpet); Cedar Walton (piano); George Benson (guitar); Percy Heath (bass); Art Blakey (drums). Hi-Fly; The Blues Walk (Loose Walk); A Nightingale Sang in Berkeley Square; Gotham City. COLUMBIA JC 36853 $7.98, © JCT 36853 $7.98.

Performance: Excellent
Recording: Very good

Five years have passed since tenor saxophonist Dexter Gordon made his highly publicized "return" to the American jazz scene. The hoopla has long since subsided, but Gordon obviously continues to be marketable—at least Columbia keeps those albums coming, and there's no skimping on the supporting cast. Disregarding those unfortunately cluttered, let's-bring-everybody-to-Montreux albums on which Columbia threw together the great and the pathetic, Dexter Gordon's association with the label has yielded many fine recordings, and "Gotham City," the most recent one, may well be the most thoroughly satisfying to date.

With a solid rhythm section consisting of Cedar Walton, Percy Heath, and Art Blakey, and with one appearance by Woody Shaw and two by George Benson, there is not a moment on the record that deserves less than complete attention. Gordon maintains his excellence throughout, the rhythm section cooks, and Woody Shaw will surely win new followers with his electrifying work on The Blues Walk. But the greatest delight of this album is to hear George Benson's guitar speak jazz flawlessly again, especially on the laid-back title tune, which would have made a much better opener than Hi-Fly (why do producers always think they have to open with a fast track?). This is the kind of album that gives me hope.

C.A.

EARL KLUGH: Late Night Guitar
Earl Klugh (guitar); instrumental accompaniment. Smoke Gets in Your Eyes; Jamaica Farewell; Tenderly; Mona Lisa; Triste; Laura; Two for the Road, and six others. LIBERTY LT-1079 $7.98.

Performance: Limp
Recording: Very good

A mood music album? Shades of 1955! Why didn't Earl Klugh go all out and call it "Drifting and Dreaming"? The sighing-string sections! The lone cello! The plunk-plunk of the nylon-string acoustic guitar! Admittedly, all this is very well recorded, but after listening, in succession, to Jamaica Farewell, Tenderly, and Mona Lisa, I had had enough. "Late Night Guitar" ought to be awarded the soggy palm as Throwback of the Year.

J.V.

L.A. 4: Zaca. Bud Shank (flute, alto saxophone); Laurindo Almeida (guitar); Ray Brown (bass); Jeff Hamilton (percussion). Faure's Pavane, Op. 50, Secret Love, You Can't Go Home Again; and four others. CONCORD JAZZ CJ-130 $7.98.

Performance: Smooth
Recording: Very good

Since its formation in the mid-Seventies, the all-star L.A. 4 has made about one album a year and gained a world-wide reputation as the top chamber-jazz group. Given the reputation of its members, it was clear from the very beginning that the quartet wouldn't exactly go unnoticed, but even all-star groups have been known to fail, so longevity was never guaranteed.

The quartet's most recent album, "Zaca," was recorded in London last summer following a successful booking at Ronnie Scott's club. It contains no surprises, just forty-two or so minutes of bouncy, Rio backstage! A mood music album? Shades of 1955! Why didn't Earl Klugh go all out and call it "Drifting and Dreaming"? The sighing-string sections! The lone cello! The plunk-plunk of the nylon-string acoustic guitar! Admittedly, all this is very well recorded, but after listening, in succession, to Jamaica Farewell, Tenderly, and Mona Lisa, I had had enough. "Late Night Guitar" ought to be awarded the soggy palm as Throwback of the Year.

J.V.

GERRY MULLIGAN AND HIS ORCHESTRA: Walk on the Water. Gerry Mulligan (soprano and baritone saxophones); orchestra. For an Unfinished Woman Across the Track Blues; Song for Strayhorn; Angelica; and three others. DRG SL 5194 $7.98, © SLC 5194 $7.98.

Performance: Excellent
Recording: Very good

If 1980 saw a proliferation of music called "New Wave"—that unimaginative parody
of Fifties rock-and-roll—it also saw the continuation of music created without any strenuous efforts to attract attention. Good music, of course, does not need bizarre presentation to catch the ear, and Gerry Mulligan has long been a wellspring of good music. His latest album, “Walk on the Water,” recorded last September with a nineteen-piece band of musicians whose names are not likely to be dropped outside of jazz’s inner circle, is a wonderful exercise in taste, musicianship, and musical reverence. There is a nice bow to Duke Ellington in Across the Track Blues, a fine version of Tommy Dorsey’s theme, I’m Getting Sentimental over You, and a pretty tune by the band’s Keith Jarrett-inspired pianist, Mitchell Forman. The remainder of the program is made up of Mulligan’s own compositions, exquisitely arranged by him and—like the rest of the set—sprinkled generously with solos of substance. C.A.

RED NORVO AND HIS ORCHESTRA—1938. Mildred Bailey, Terry Allen (vocals); Red Norvo and His Orchestra. Tea Time; I May Be Wrong; Rug Cutter’s Swing; Lullaby in Rhythm; Blue Skies; A-Tisket A-Tasket; Just You and Me; Drop Me Off in Harlem; and eight others. CIRCLE ® CLP-3 $7.98.

Recording: Good
Performance: Good

POLLY PODEWELL: All of Me. Polly Podewell (vocals); instrumental accompaniment. She’s Funny That Way; Skylark; All of Me; Just One of Those Things; Seems Like Old Times; Radio, and six others. AU-DIOPHILE AP-136 $7.98.

Recording: Good
Performance: Good

Polly Podewell is a jazz-pop debutante whom Benny Goodman recently introduced as a “throwback” because she’s apparently intent on becoming a big-band singer. I wish her luck, but I have a feeling that she’s going to have trouble finding big bands to sing in front of—that is, unless she’s content to do the Sun City circuit. On this album, accompanied by a sextet, she comes across as a good-enough singer (she does a fine, vexed-sounding Just One of Those Things), but her style seems tacked-on rather than innate. Polly Podewell is serious enough to make it clear that she isn’t kidding or camping, but what kind of future there is for this sort of thing I really couldn’t say. P.R.
One of the most gifted young writers to emerge during the black revolution of a decade ago, Gil Scott-Heron has always been primarily a poet and became a musician almost incidentally. He saw his first novel published when he was eighteen, wrote another while a student at Lincoln University in Pennsylvania, and had published a book of poetry (including the popular The Revolution Will Not Be Televised) by the time he eased into his twenties. A brilliant career as a wordsmith seemed to be in the making. But Scott-Heron discerned that the young audience he hoped to reach would be more likely to receive his message if he presented it through music. It is essential to pay close attention to his lyrics; they are the driving force of his art. Admittedly, his voice is limited in expression and his melodies sound alike, but there is power in the words. This album reflects Scott-Heron's serious nature. He deals with such subjects as the reparations that never were given to blacks after the Civil War, the ennui of retirement, the continuing threat of the Ku Klux Klan, and the fear that haunts so many in our society, from prison inmates and welfare mothers to the elderly, who are stalked by crime. Pretty heavy stuff. But he also has a softer side, displayed here in Combinations, a ballad about intimate relationships, and in a little song for babies, Your Daddy Loves You (for Gia Louise).

Gil Scott-Heron's lyrics are so far above the mindless stuff of most of today's popular music that I would like to see him turn again to his typewriter in pursuit of longer forms. Until he does, though, this album will do.

A Legend in His Own Mind; and three others. ARISTA AL 9540 $8.98, ACT 9540 $8.98, A&I 9540 $8.98. Performance: Social commentary Recording: Satisfactory
THEATER • FILMS

RECORDING OF SPECIAL MERIT

BEN BAGLEY'S EVERYONE ELSE RE-VISITED. Nell Carter, Arthur Siegel, June Carroll, Patti Wyss, Su-La Haska, Jamie Rocco, Albert Evans, the Populares (vocals), orchestra, Dennis Deal cond. Follow the Girls; Let's Talk About the Weather; I Walk with Music; What'll They Think of Next? Ohh, What You Said! Way Back in 1939 A.D., Slightly Less Than Wonderful/Hi-De-Ho-High/This Is So Nice; Meet the People/The Same Old South; It's Me Again/Let's Make Memories Tonight/I Can't Afford to Dream; Black Diamond; Don't Sell the Night Short/I Know You by Heart; and seventeen others. PAINTED SMILES PS 1374 $8.98.

Performance: Worth the revisist
Recording: Very good

Having committed to disc the dormant contents of musical-theater scores by all the better-known Broadway composers from Harold Arlen to Vincent Youmans, the enterprising Ben Bagley turns his attention this time to "lesser known tunesmiths" such as Jay Gorney, Hugh Martin, Phil Charig, Baldwin Bergersten, and Arthur Siegel (the latter composer who is heard on just about every record in this series). Although some of the lyrics—even some by such past masters as Johnny Mercer, Howard Dietz, and George Marion Jr.—suffer from the curse of cuteness, there is a lot of musical life in the program. And when the material gets tiresome, expectation builds up on the talents of that delectable woman who won a much-deserved Tony Award for Ain't Misbehavin'—keeps it going anyway. Her performance of a medley of three little-known Fats Waller numbers from a 1943 flop called Early to Bed is one of the juiciest plums in this package. But there are plenty of other pleasures: medleys of melodious moments from forgotten scores by Hoagy Carmichael (Walk with Music), Duke Ellington (Baggar's Holiday), Hugo Martin (Best Foot Forward), and Jay Gorney (Meet the People, including the still stinging satirical The Same Old South); Kalmar and Ruby's songs for The Five O’Clock Girl, which has somehow made it all the way back to Broadway; and charming pieces from clever revues of the Thirties and Forties, such as Three’s a Crowd, Small Wonder, and Bagley’s own Shoestring Revue of blessed memory.

Arthur Siegel sings three of his contributions to the Shoestring Revue in his eminently pleasant way. The menu includes such mouth-watering desserts as Nell Carter's terrific treatment of the Rodgers and Hart rarity Black Diamond (originally (Continued on page 116)

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T. S. Monk

Thelonious Monk Jr., Boo Boo Monk, Yvonne Fletcher

It's a pleasure to be able to report that real musicians are at work in dance music in the post-disco era. The T. S. Monk band's debut album "House of Music" on Mirage is a joyously performed, impeccably produced collection of up-tempo (read "danceable") material with a dominant one-two beat. You want to hear some superb singing? Listen here to Boo Boo Monk and Yvonne Fletcher, the group's distaff members, weave skillful harmonies through Candidate for Love and give a high-flying back-up to Can't Keep My Hands to Myself. You want to hear some virtuoso playing? Pay attention to Jeff Sigma's guitar in the driving Hot Night in the City. Looking for interesting new songs? Check out Bon Bon Vie by Sandy Linzer and L. Russell Brown or lend an ear to the Burt Bacharach-inspired The Last of the Wicked Romancers by Linzer and Steve Wise.

T. S. Monk's arranger, drummer, and male vocalist is Thelonious Monk Jr., and the title song's line "We grew up in a house of music" refers to the house of his and Boo Boo's father, jazz great Thelonious Monk. They obviously learned the master's lessons well, for their album is a joy.

Irv Cohn


Performance Good
Recording: Average

This must be the first time something started as a magazine article and wound up as two soundtrack albums. It is natural to expect this release to be inferior to the first Urban Cowboy album simply because of the way it's titled, and it is—it doesn't have Bonnie Raitt—but not by a lot. This sampling is less commercial (it also doesn't have the Eagles or Charlie Daniels' greatest hit), but, being a bit closer to hard country, it is probably more representative of the taste of the natives of Gilley's, the Texas club where most of the movie is set. Mickey Gilley, our host at that setting, rocks like a champ on his three numbers, and Johnny Lee and J. D. Souther start each side with simple but pretty-good songs. Personally, I don't think either of the soundtrack albums is all that terrific, but the first one did a lot of ambassadorial good, and this one is designed to lead the converts to the next plateau. If I were you, I wouldn't hock my Stetson just yet.

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