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Stereo Review®

Buyers' Guide to **HEADPHONES**

Plus: our ten-member listening panel rates fifteen headphones

STEREO TV
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How to get four-channel sound from your stereo discs

EQUIPMENT TEST REPORTS:

- Dual C844 Cassette Deck
- Harman Kardon PM660 Integrated Amplifier
- JBL L46 Speaker System
- SAE P101 Preamplifier
- Teac X-1000R Open-reel Tape Deck

DISC SPECIALS:

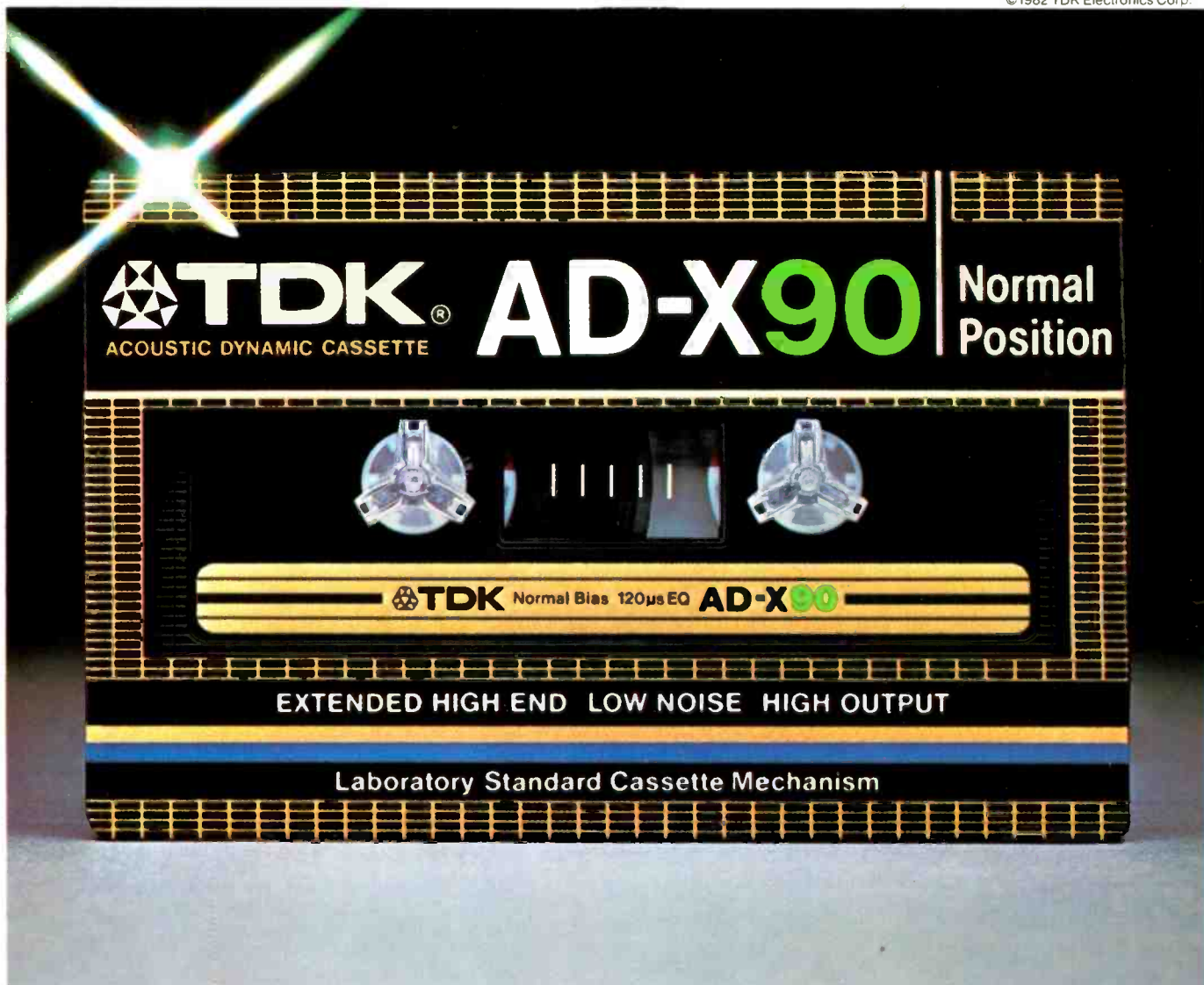
Mike Oldfield • Van Morrison
John Denver • Simon & Garfunkel
Pete Seeger and Arlo Guthrie

BRITTEN: Two String Quartets
BRAHMS: Clarinet Sonatas
Lauritz Melchior Revisited



41101





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the higher MOL and lower bias noise, will make it difficult for you to believe how much AD-X "improves" your deck. Extraordinary.

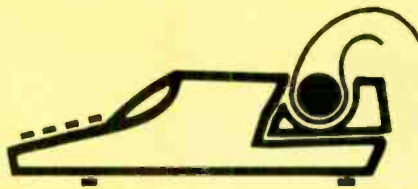
Of course, there's a solid reason why AD-X performs so brilliantly. It's TDK's Super Avilyn technology at work. You see, AD-X is the first normal bias audio cassette to use TDK's Avilyn magnetic par-

ticle—based on the same formulation that's made TDK the leader in audio and video tape technology.

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TDK
THE MACHINE FOR YOUR MACHINE
CIRCLE NO. 33 ON READER SERVICE CARD



Edited by William Livingstone

● **WINNING RECORDS:** The 1982 Juno Award (Canada's equivalent of the Grammy) for Best Classical Album went to the London recording of Ravel's Daphnis et Chloé by the Montreal Symphony under Charles Dutoit....Philips' recording of Mahler's Symphony No. 8 played by the Boston Symphony conducted by Seiji Ozawa has been awarded the Prix Jacques Ibért by the French Académie du Disque Lyrique. This award honors not only the performance, but the technical side of the recording as well....The Grand Prix International du Disque was given to Deutsche Grammophon's recording of Verdi's Un Ballo in Maschera with soloists and orchestra of La Scala conducted by Claudio Abbado.

● **DEUTSCHE GRAMMOPHON'S "DOUBLETIME TAPES"** are designed for users of the Sony Walkman and similar personal portable cassette players, and each tape in this new series will make full use of the ninety minutes of playing time provided by a C-90 cassette. The music on each cassette will be the "greatest hits" of a single composer. The half-dozen releases for July are devoted to Bach, Beethoven, Chopin, Mozart, Johann Strauss, Jr., and Tchaikovsky. All performances have previously been released on disc, but there will be no disc counterpart to these cassettes. Price: \$6.98.

● **CLASSICAL AWARDS:** Honorary degrees of Doctor of Music have been given to soprano Jessye Norman by Howard University in Washington, D.C., and to soprano Roberta Peters by St. John's University in New York....German music critics voting for the Deutscher Schallplattenpreis awards selected conductor Carlos Kleiber as Artist of the Year and violinist Shlomo Mintz as Discovery of the Year....In Paris the Prix du Président de la République Française and the Beethoven Society Medal were awarded to conductor Daniel Barenboim....At Los Tiños, Mexico, President López Portillo presented the Aztec Eagle, Mexico's highest award for artistic excellence, to conductor Leonard Bernstein and to pianist Claudio Arrau.

● **STAR WARS**, a movie widely pirated on videotape, has just been brought out by Twentieth Century-Fox Video in both Beta II and VHS formats. This is the picture's first legitimate appearance on videocassette, and for the months of June, July, and August it can only be rented, but it will probably be available for sale by fall. Winner of six Academy Awards, Star Wars is said to be the biggest box-office hit in movie history. The soundtrack was composed by John Williams. The VHS version is available in stereo that is mono compatible. Rated PG, the movie has a VCR running time of 121 minutes. Rental prices will vary from dealer to dealer.

● **TECH NOTES:** The Jensen Home Audio Division of Esmark Industries is continuing its acquisition streak with the purchase of both Phase Linear and Advent. The companies will keep their separate identities as has Discwasher, which was acquired last year....Those who have been awaiting introduction of a digital audio disc (DAD) player will have to hold out only until late summer, which is when Cybernet says it will begin selling its player under the Kyocera label....Matsushita and dbx have developed a low-voltage dbx decoder integrated-circuit chip that will enable the noise-reduction system to be used on personal portable tape machines. A Panasonic pocket player with dbx is expected to be on the market this fall....JBL will be joining the car-stereo market with a line of speakers....When audio pioneer Rudy Bozak died early this year the loudspeaker company bearing his name closed down. It has now been reopened with new management but the same product philosophy....Sansui is planning to show a prototype AM stereo tuner at the Consumer Electronics Show in Chicago that will be compatible with the Harris, Kahn, and Magnavox systems by using a three-way switch. ...JVC has decided to postpone the introduction of its VHD videodisc system because of what it feels to be the lack of consumer response to the RCA and Pioneer disc systems.

"This New Radio Shack Receiver Puts Digital Technology At Your Fingertips"

Isaac Asimov

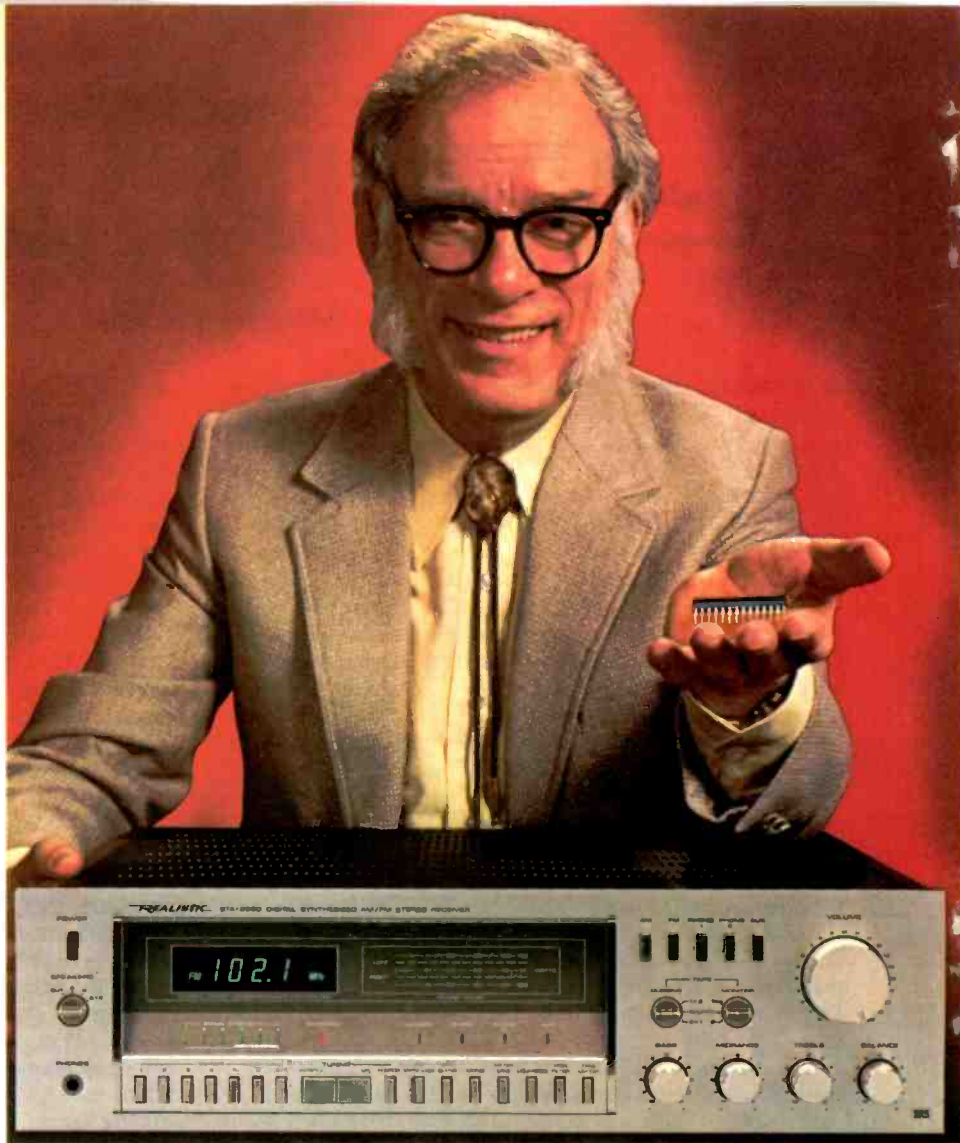
Renowned science and science fiction author

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COVER: Design by Borys Patchowsky; photo by Lynn Goldsmith. Carly Simon is listening to Sennheiser's Model HD-40 headphones (also see note on page 6).

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Speaking of Music...

By William Anderson



TAXING TAPE

WHEN, 'way back in 1968, Harman Kardon took a full page in the *New York Times* to hawk its new SC2520 stereo compact system with turntable, receiver, speakers, and built-in cassette recorder, it headlined the offer with a humdinger of a come-on: "You may never buy a record again." The 120-dB roar that immediately rocked the executive suites of the nation's record companies soon subsided, however, for industry profits had never been higher (it was high noon for the Beatles, remember), low disc prices kept dubbing effectively in check, and an apparently insatiable public was eager to buy any disc it could lay its hands on.

Economics and technology have since conspired to alter that picture radically. Disc sales are down, disc prices are up (the two are not necessarily related), and cassette recorders are now as common (and as

handy) as cameras. The result has been an enormous increase in the dubbing of music from discs and off the air—a Warner Bros. study estimates that over \$2.85 billion worth of music was taped in 1980—and the roar in the executive suites is back up to 120 dB again. The industry wants its profits back, and it thinks it knows how to get them: a tax on tape.

In 1976, movie-makers Universal and Walt Disney sued Sony Corporation as a "contributory infringer" under copyright law because home tapers were using Sony Betamaxes to tape their broadcast products. Sony at first won, then lost on appeal and is now trying to get the case heard before the Supreme Court. In the meantime, bills have been introduced in both houses of Congress to get home video tapers off the copyright-infringement hook. The bills have the support of the Home Re-

cordings Rights Coalition (made up of consumers, retailers, and equipment manufacturers). The Senate bill, oddly enough, also has the support of the Coalition to Save America's Music (made up of such music-industry organizations as AFM, ASCAP, NARAS, etc.) but with one sly difference: the inclusion of an amendment that would extend the bill's coverage to audio as well as video and provide royalty compensation for copyright owners by taxing tape and recording equipment manufacturers and importers—taxes which would, of course, be quickly passed on to consumers. Give with one hand, take away with the other.

I confess that I find it difficult to work up much sympathy for movie producers in this matter since they have presumably already made three dips into the till—the initial release, the videotape release, and the TV broadcast release(s)—and I cannot see how time-shift taping has anything to do with copyright infringement. Record producers, however, are being hit in the middle of their first dip, and it must hurt. Nonetheless, I do not think that taxes are the answer. Collecting, administering, and divvying up the take among the interested parties would mean a bureaucracy of staggering size, computer programmers, lawyers, creative accountants, and other fat cats without number. I suspect that royalty checks would reach struggling artists about the time highway taxes are used to fill potholes, cigarette taxes fund lung-cancer research, and liquor taxes go to support the families of incurable alcoholics. And there might not even be any take: tapes can be bootlegged as easily as cigarettes.

Other solutions? We can dismiss lowering disc prices, keeping records off the air, and repealing human nature as equally impractical. But part of that \$2.5 billion a year in lost revenue might be used to develop some gimmick to foil dubbing, and maybe the rest to put the record industry in the blank-tape business. If you can't lick 'em . . . □

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LETTERS TO THE EDITOR

Bucky Pizzarelli

● Joel Vance's May review of guitarist Bucky Pizzarelli's solo album, "Love Songs," omitted mention of one very important fact. How could Mr. Vance neglect to point out that Pizzarelli plays a seven-string guitar? I've been a conventional guitarist for years and marvel at the way Pizzarelli has mastered his instrument. Anyone who likes guitar and hasn't heard him play is in for a treat.

RUNO S. JOHNSON
Malden, Mass.

the conversion to digital recording is a catastrophe, that the sampling rate should be at least 200 kHz, that a 1/2-inch analog tape recorded at 30 ips has a greater dynamic range than a digital recording, that even record producers complain of headaches from the process, that the record companies' investment in digital equipment is so massive that they can't back out despite its shortcomings, and so on.

I can report firsthand that when Mr. Sax asked the opinions of the sixty-some audiophiles assembled to hear him—before stat-
(Continued on page 8)

Vaughan Williams

● I am in complete agreement with James Goodfriend's May review of the London Madrigal Singers' album of Vaughan Williams' folk-song arrangements, "The Springtime of the Year," but he is in error in his assumption that the Musical Heritage Society release is the recording's first appearance in the U.S. It has been available for several years on Seraphim S-60249—and at a price considerably below the nonmember's price for the MHS album. On the other hand, perhaps MHS has rectified a problem common to both the original EMI release and the Seraphim disc: a bothersome low recording level that allows original surface noise and wear effects to rise to the same level as the music.

LOWELL DORMAN
Rock Island, Ill.

James Goodfriend replies: Mr. Dorman and several other readers are correct in pointing out the prior Seraphim release, which I somehow overlooked. As for the sound quality, the MHS version does seem improved.

Digital Dissent

● Two weeks before I read E. Brad Meyer's "Digital" article in the April issue, I heard a talk on the subject by Doug Sax, a record producer for Sheffield Labs and owner of the Mastering Lab. I am certainly in no position to judge his assertions that

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ing his own—not one had a kind word for the process. Their comments were of the now-familiar kind recounted by Mr. Meyer: “gritty,” “harsh,” “granular,” “hard,” and so on. In his otherwise lucid and well-written article, Mr. Meyer made a fallacious inference that goes to the heart of the matter: “Such adjectives . . . all tend to flow from the idea that one simply can’t just chop up a musical signal into little bitty pieces. . . .” Such observations flow from a *listening experience*, and there is no arguing with that.

ARNOLD FEDERBUSH
Los Angeles, Calif.

● I am pleased that E. Brad Meyer brought my work on the stress effects of

digital recordings to the attention of STEREO REVIEW readers. During the two years since I first presented my findings to the Audio Engineering Society, the evidence has continued to mount. However, there are certain points in Meyer’s article that should be addressed. First, I have no “dark tales of conspiracy” concerning the recording industry, though I have referred repeatedly to their lack of cooperation.

Mr. Meyer states that “better-controlled experiments . . . cast serious doubt” on my findings. He is confusing my public presentation to the AES, which was not an experiment but a demonstration, with my carefully controlled experiments dating back several years and including some hundreds

of subjects. The two very minor studies that allegedly cast doubt on my work did not control all the variables in the experimental procedure. Most important of all, the researchers did not know how to carry out properly the very test I advocate!

If my research findings are correct, if listening to digital recordings is very stressful mentally and physically, then what does it say of the critics who are unable to feel this stress in themselves? Are they really competent to be critics if they are so out of touch with their minds and their bodies? I will be happy to supply interested readers of STEREO REVIEW with a full description of my findings. Simply send a self-addressed, stamped business-size envelope to me at the address below.

JOHN DIAMOND, M.D.
Institute of Behavioral Kinesiology
P.O. Drawer 37
Valley Cottage, N.Y. 10989

E. Brad Meyer replies: Mr. Federbush makes a good point, concerning which I stand corrected: negative preconceptions about digital encoding do not make recordings sound bad; what such preconceptions can do is cause the digital process to be blamed erroneously for the bad sound. But no matter how unanimous a given group of audiophiles may be on the subject, without a controlled comparison between the input to the digital recorder and its output, no conclusions can be drawn about the digital process.

Concerning Dr. Diamond’s letter, since I have not yet received the copies of his work that I requested, I must withhold my final judgment as to its validity. But a group of members of the Detroit chapter of the Audio Engineering Society, having received instruction from Diamond himself on how to conduct the tests, did manage to duplicate his results. However, they then made one small change: the experiments were repeated, but made “double-blind,” so that neither subject nor tester could know which selection was playing. All correlation between digital sound and the strength of the subjects’ deltoid muscles disappeared.

Finally, the “dark tales of conspiracy” I attributed to Dr. Diamond may be found in the December 1980 issue of The Absolute Sound, pages 392 and following.

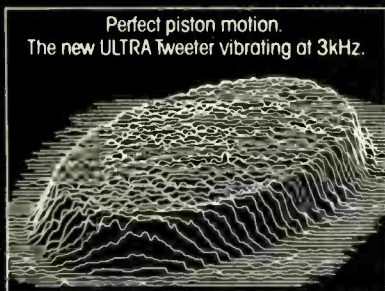
Repertoire

● Are the record companies and STEREO REVIEW trying to “dumb down” the record-buying public? If I see one more review of Mozart, Bach, Brahms, or Beethoven I think I will give up reading your classical reviews. The buying public can stand just so many versions of Mozart’s Symphony No. 41 or Bach’s Brandenburg Concertos or Beethoven’s Ninth. What about Norman Dello Joio, Frank Bridge, or the brilliant black composer Fela Sowande? Eugene Ormandy recorded Dello Joio’s *Variations, Chaconne, and Finale* on Columbia some years back, but it can no longer be obtained. And try to find the Ace label recording of Sowande’s beautiful *African Suite*—you could find a Chinese translation of the Koran in Salt Lake City with less trouble!

I realize that in these days of high pro-
(Continued on page 10)

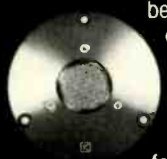
WHAT NO HUMAN EYE HAS EVER SEEN BEFORE, THE HUMAN EAR NOW HEARS.

AND THE CRITICS NOW PRAISE.



The COMPLETE BUYER’S GUIDE TO STEREO/HI-FI EQUIPMENT calls it “the technology of today.”

We call it ULTRA™: our exclusive Ultra-accurate Laser Topographic Response Analysis system. A computerized laser interferometer that lets our speaker designers see, for the first time ever, the vibrating surface of a speaker diaphragm, frozen in time and magnified for detailed examination. Yielding the secrets of how



best to determine critical dimensions, select materials and modify physical and electrical characteristics.

The result? The

following quotes from the COMPLETE BUYER’S GUIDE review of the new Difton 100 loudspeaker, designed with ULTRA, speak for themselves:

“There is a tendency to compare all speakers in this configuration to the LS3/5A, and that’s not really a fair test: the latter speaker costs well over twice what Celestion asks for the Difton 100. Nonetheless . . . the Celestion was the clear winner in high frequency response, apparent deep bass, and—to the ears of half a dozen critical listeners—overall sound quality.

“ . . . Celestion has managed to achieve better results for less money using the technology of today. And that, friends, is what audio is still all about: bringing fine sound within the reach of all who have the desire to hear it.”

Audition the Difton 100 or one of the other superb Diftons at your Celestion dealer. And discover why the COMPLETE BUYER’S GUIDE closed their review with: “Bravo Celestion!”



*Celestion’s suggested retail price: \$130.

COME SEE US AT CES McCORMICK INN
SUITE NO. 2-26

celestion  speakers

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In Canada, Toronto

© 1982, Celestion Industries, Inc.

CIRCLE NO. 5 ON READER SERVICE CARD

...and then came the SE-9.

35 years ago, to satisfy listening preferences, serious music lovers had to redesign their listening rooms. Remove the drapes. Add a rug here. Rearrange the upholstered sofa there. Get rid of that crystal chandelier!

Bass and treble tone controls came later, and they helped—but only a little. When you needed a boost in that lowest bass region, you had to accept boosted upper bass and mid-range tones as well—whether you needed them or not.

By 1958, the first equalizers appeared. They allowed you to alter specific bands of tones to suit the needs of the listening room—and the music program. With special mics, a pink noise generator, and a real-time

analyzer, you could electronically adjust your system to your listening preference. If—that is—you didn't mind spending several thousand dollars and a half hour adjusting and readjusting controls to enjoy a half hour of listening.

Then came Sansui's remarkable SE-9 Compu-Equalizer. It takes the guesswork and the frustration out of equalization. At the touch of a button, the SE-9's built-in pink noise generator feeds its signals first to one speaker, then the other. Sounds picked up by the SE-9's calibrated microphone are then analyzed by its microprocessor. Sit back and watch in amazement, as the SE-9's motorized system moves each of its

16 fader controls (8 per channel) to create the curve that yields precisely flat response at your preferred listening location.

Touch another button, and the curve is memorized for future, instant recall. Move to another room—even another room—and the SE-9 can create and store a new curve—up to four of them.

At last, after 35 years, a perfect equalization system without errors or frustration. And, at a price that makes perfect equalization affordable for all serious music lovers.

See the SE-9 and Sansui's truly complete line of high quality components and systems at your Sansui dealer today. Or write to us for details.



SANSUI ELECTRONICS CORPORATION
Lyndhurst, New Jersey 07071, Gardena, CA 90248
Sansui Electric Co., Ltd., Tokyo, Japan
CIRCLE NO. 27 ON READER SERVICE CARD

Sansui

Loran™ is the cassette of the future... but it's here right now. The original and only heat resistant cassette shell and tape that withstands the oven temperatures of a car dashboard in the sun. Testing proves that even TDK or Maxell cannot take this kind of punishment.

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

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

Loran also has other exclusive features not available on any other cassette. Safety

Tabs™ (patent pending) prevent accidental erasures. Unlike other cassettes, you can restore its erase and record capabilities simply by turning the Tab screw a 1/2 turn.

No wonder Loran was selected as "one of the most innovative consumer electronics products..." by the Consumer Electronics Show Design and Engineering Exhibition.

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



WHEN ALL OTHERS FAIL... LORAN™ CASSETTES ARE SAFE AND SOUND SENSATIONAL.



Actual cassettes tested in a closed car in the sun.

LORAN™
The Design of Spectacular Sound

LORAN™ is manufactured exclusively by Loranger Entertainment, 10-48 Clark Street, Warren, Pa. 16365

CIRCLE NO. 21 ON READER SERVICE CARD

duction costs the companies want to make "safe" records, but when you have as many as five or six recordings of Beethoven's Ninth on one label, what is the point? It is sad to think we have allowed the industry and the public to fall into such complacency as to allow hundreds of worthy composers to go unnoticed while Beethoven—and God knows I love Beethoven—has thirty to forty recordings of his Third Symphony. I hate to think that my and other people's collections must suffer from staleness because either the record companies won't release new material by contemporary composers or STEREO REVIEW won't review it.

EDWARD G. MACOMBER
Middletown, Pa.

Huh? In the last five months alone, STEREO REVIEW has reviewed new records of music by Pinkham, Snyder, Delius, Cavalli, Bloch, Bolcom, Finney, Froberger, Reger, Honegger, Scriabin, Suk, Tippett, Turina, Barab, Gottlieb, Starer, Wellesz, David, Rappf, Urbanner, Rameau, Purcell, Schoenberg, Hasse, Hummel, Hoffman, Rodrigo, Kupkovic, Pärt, Barkauskas, Schnittke, Finzi, Stanford, Reinecke, and Harris—among others. As far as the Sowande and Dello Joio discs are concerned, did reader Macomber buy them when they were available? If more people had, they might still be.

Tim Hardin

● It was with great interest that I read Noel Coppage's March review of the Tim Hardin "Memorial Album." My first exposure to Tim Hardin was in the late Sixties when I purchased Bobby Darin's "If I Were a Carpenter," which includes Hardin's *Reason to Believe*, *Misty Roses*, *Red Balloon*, *Don't Make Promises*, and the title song. I have always been very fond of this album, which I believe is Darin's best, and it gave me an appreciation for Hardin.

PAUL DOERING
Pottstown, Pa.

Final Burnette

● In March "Letters" Allen Pasternak wrote in to correct Joel Vance's identification of Billy Burnette's "Gimme You" as his second album; Mr. Pasternak said it was his third. Then in May Sean McGowan wrote to say that Mr. Pasternak was not only a "nit-picker" but wrong, since "Gimme You" is actually Burnette's fourth album. Now I'll take the crown as King of the Nit-pickers: it is actually Burnette's fifth album! The others have all overlooked "Billy Burnette" on the Entrance label (Z31228, released in May 1972). Let's hope that this is the last (nit-picking) word on Billy Burnette's recording history.

PAUL ROBIN
North Hollywood, Calif.

Erratum

● The power-vs.-distortion graph for the McIntosh MC 2255 amplifier on page 42 of the June issue had an incorrect wattage scale. The scale should have ranged from 1 to 1,000 rather than 0.1 to 100 watts.

A truly beautiful car such as Lamborghini would only specify an equally beautiful car audio sound system. Alpine.

Because Alpine's passion has always been to recreate the purest, most accurate music possible. From brilliant, crisp highs. To powerful, solid lows.

And this year, Alpine takes high fidelity still higher. With electronically engineered, matched component systems that work together so precisely, so beautifully, that now you can own what you've always wanted to hear.

Higher Fidelity Car Audio Systems. They're at your Alpine Dealer now. For his location call toll-free, 800-421-1395. In California, 800-262-4150. © 1982 Alpine Electronics of America, Inc., 3102 Kashiwa Street, Torrance, California 90505.



ALPINE
car audio systems



Body by Lamborghini. Higher fidelity by Alpine.



Because Sony redesigned the car stereo, the auto makers don't have to redesign the car.

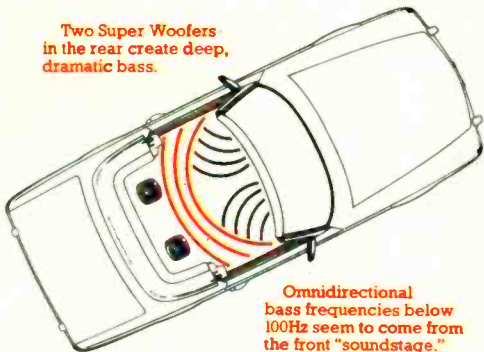
The interior of an automobile is designed with a lot of purposes in mind. Unfortunately, great stereo sound reproduction isn't one of them.

Fortunately, Sony did more than just tackle this problem. They actually solved it. By designing a stereo system that meets the acoustical challenges inherent in a car.

INTRODUCING THE SONY SOUNDFIELD™ SYSTEM.

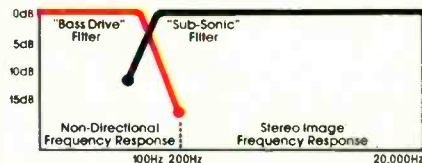
As the very name of our system indicates, we started with the acoustical sound field itself by treating the entire front of the car as a stage. The very directional high-end and mid-range frequencies emanate from this stage in an accurate stereo image.

Two Super Woofers
in the rear create deep,
dramatic bass.



Omnidirectional
bass frequencies below
100Hz seem to come from
the front "soundstage."

So the highs come across clear and soaring. The midrange, natural and accurate.



The bass frequencies below 100Hz actually are directed from the rear of the car, where the Super Woofers are placed. However, since these frequencies are omnidirectional, they seem to be coming from the proper "stage" location.

The result is richer, fuller, and more dramatic bass.

CONVERT WITH COMPONENTS.

The optimum SoundField System consists of a powerful amplifier (XM-120) driving a pair of 8" Super Woofers (XS-L20), along with a medium-powered amplifier driving the front speakers. This means full-range speakers can be used without risk of modulation distortion.

But you can begin to enjoy the

SoundField System simply by adding one of our lower powered amplifiers and the Super Woofers to the car stereo you already have. Then you can slowly build up your system, adding a higher powered amplifier, more speakers, and an equalizer.

A SOUND THAT TAKES A BACKSEAT TO NONE.

Although the technology of the Sony SoundField System is complex, the reason for it is simple.

It will give you high dB levels with very low distortion, extremely precise stereo imaging, and an amazingly broad frequency response. In addition, you'll be pleasantly surprised at just how easily a SoundField System can be installed in your car.

So come into your local Sony dealer and ask to hear the next generation in autostereo systems.

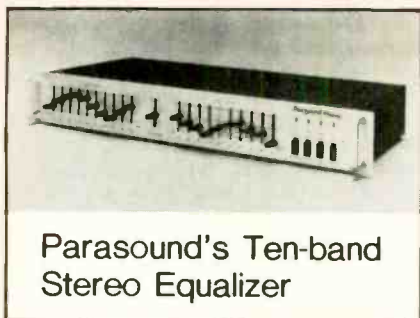
One listen and you'll know why the auto makers don't have to redesign the car.

SONY
THE ONE AND ONLY



© 1982 Sony Corporation of America. Sony and SoundField are trademarks of Sony Corporation. Models shown: XS-L20 Super Woofers, XS-301 Front Speakers, XR-55 In-dash Cassette/Receiver, XM-E7 Graphic Equalizer/Amplifier and XM-120 Amplifier.
CIRCLE NO. 30 ON READER SERVICE CARD

New Products latest audio equipment and accessories

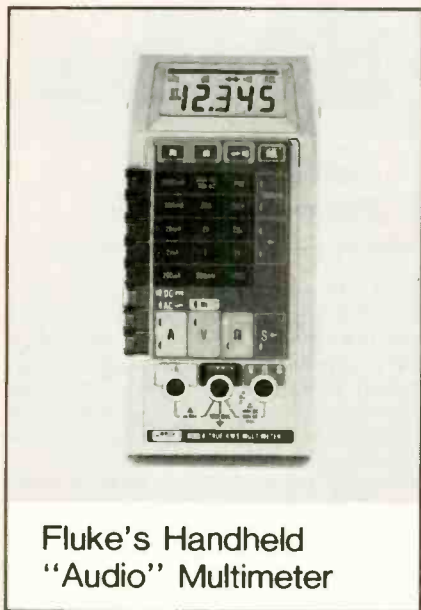


Parasound's Ten-band Stereo Equalizer

□ The Parasound EQ210s octave graphic equalizer has ten controls per channel centered at 30, 60, 120, 240, 480, 1,000, 2,000, 3,000, 4,000, 8,000, and 16,000 Hz. A boost or cut of up to 12 dB is available in each band. Frequency response with the equalizer controls centered is 5 Hz to 100 kHz ± 0.5 dB. Harmonic distortion is 0.01 per cent and signal-to-noise ratio is 100 dB.

A separate control adjusts volume levels so that they are similar with either equalized or unequalized control settings. Other controls include an equalizer bypass and a tape-monitor switch. It is possible to use the unit to equalize the signal being fed to a tape recorder. Size is 19 x 3 x 8 inches; weight is 5 1/2 pounds. Price: \$249.95. Parasound, Dept. SR, 680 Beach Street, San Francisco, Calif. 94109.

Circle 120 on reader service card



Fluke's Handheld "Audio" Multimeter

□ The Fluke Model 8060A is a handheld, 4 1/2-digit multimeter with special audio applications using a microcomputer and a custom large-scale integrated circuit to provide functions besides the five standard voltmeter functions (a.c. and d.c. voltage and current plus resistance). The unit features true-rms measurements for a.c. signals up

to 100 kHz in frequency, frequency measurements up to 200 kHz, resistance measurements up to 300 megohms, and the ability to store any measurement as an offset (a positive or negative relative-reference value). Voltage measurements can be directly displayed in dBm (referred to 600 ohms) or in relative dB. Basic d.c. accuracy is 0.04 per cent. Also included are continuity testing (with selectable visual and/or audible indication), conductance, and constant-current-source diode-testing functions. Power is supplied by a 9-volt alkaline battery (for 170 hours of continuous operation) or by an optional battery eliminator. Price: \$349. John Fluke Mfg. Co., Inc., Dept. SR, P.O. Box C9090, Everett, Wash. 98206.

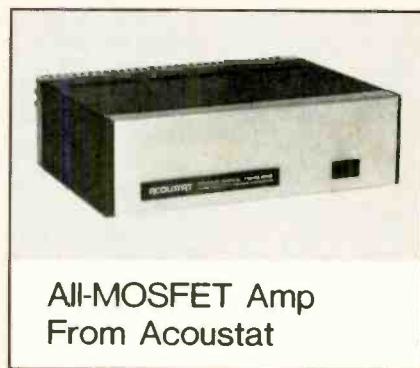
Circle 121 on reader service card



Inter-Ego Systems' Three-way Speaker

□ The Inter-Ego Systems SE-12.3 speaker is a three-way unit with a 12-inch woofer, 5-inch midrange, and 1-inch Mylar-dome tweeter. A LED peak-level indicator signals how hard the speaker is being driven; at moderate power levels it flashes, and at high power levels it glows steadily. Specifications include crossover frequencies of 700 and 5,000-8,000 Hz (adjustable), overall response from 30 to 23,000 Hz, and a sensitivity of 97 dB sound-pressure level at 1 meter with a 1-watt input. Rated impedance is 4 ohms. The grille is black knit polyester on a removable frame. Dimensions are 26 3/8 x 15 1/2 x 11 7/8 inches; weight is 48 pounds. Price: \$395. Inter-Ego Systems, Inc., Dept. SR, 50 Werman Court, P.O. Box 221, Plainview, N.Y. 11803.

Circle 122 on reader service card



All-MOSFET Amp From Acoustat

□ Claimed to be the first production amplifier to employ MOSFETs (metal-oxide semiconductor field-effect transistors) in all circuits, the Acoustat Trans-Nova Twin-200 power amplifier is said to provide the benefits of the MOSFET's low cost, cool operation, and long-term reliability plus the sonic quality of tube amplifiers. The TNT-200 is rated at 200 watts per channel into 8-ohm loads. It uses a "Complement Feedback" signal-correction system that is said to reduce distortion without the phase shift or transient intermodulation distortion normally associated with large amounts of negative feedback. Separate power supplies are provided for the left and right channels on the 18 x 4 x 14-inch stainless-steel chassis. Price: \$995. Acoustat Corp., Dept. SR, 3101 S.W. First Terrace, Ft. Lauderdale, Fla. 33315.

Circle 123 on reader service card



Bose Revises Its Model 501 Speaker

□ The design of the Bose 501 Series III loudspeaker is based on the original Bose 501 speaker introduced in 1970. Like its predecessors in the line, the 501 Series III uses an array of three drivers to create a desired balance of reflected and direct sound energy. The 501 Series III differs from the original 501 in that it incorporates a newly designed ported enclosure, new high-sensitivity tweeters, and a new high-compliance woofer. A system-protection circuit has been added to protect the woofer

New Products latest audio equipment and accessories

and crossover as well as the tweeters, and system impedance has been changed to 8 ohms.

The driver complement is one 10-inch forward-firing woofer and two 3-inch tweeters, one inward- and one outward-firing. Crossover frequencies are 1,500 and 2,500 Hz. Minimum recommended amplifier power is 20 watts. The cabinet is finished in walnut-grain vinyl and measures 24 x 14½ x 14½ inches. The 501 Series III is sold only in matched pairs. Price: \$680 per pair.

Circle 124 on reader service card



Four-way Speaker Kit from Heath

□ Heath's AS-1324 four-way speaker kit combines the company's AS-1320 subwoofer with the new AS-1321 three-way speaker module. The module contains a 6½-inch polypropylene mid-bass driver covering the range from 100 to 600 Hz, a 2-inch ferro-fluid-damped impregnated-textile dome midrange covering 600 to 4,000 Hz, and a "planar tweeter" for frequencies from 4,000 to 25,000 Hz. The subwoofer is said to have a frequency range of 15 to 750 Hz and a frequency response of 22 to 500 Hz ± 3 dB. It features an 8-ohm, 15-inch long-throw driver design in a 9-cubic-foot vented enclosure.

The AS-1324 system's crossover takes advantage of the natural low-frequency rolloffs of its individual drivers and uses matched second-order LC filters. Minimum recommended amplifier power is 30 watts per channel; maximum is 250 watts. Instead of fuses, the speakers are protected by built-in circuit breakers. The speaker's rear panel has two amplifier inputs and two ter-

минаl strips for either full-range or bi-amplified operation. The entire cabinet, with walnut-stained decorative-ash rails, uses high-density materials said to prevent sound coloration. Dimensions are 64½ x 21½ x 17 inches. Both the AS-1321 three-way system and the AS-1320 subwoofer can be built and used separately. Kit prices: complete AS-1324 system, \$569.90; AS-1321 module, \$289.95; AS-1320 subwoofer, \$299.95.

Circle 125 on reader service card



Auto-reverse Car-stereo Receiver From Jensen

□ Jensen's RE508 Electronic Tuning Receiver is an AM/FM/cassette player with auto-reverse. Four AM and four FM station presets control a digital-synthesis tuner section which also has a conventional tuning knob. The station-frequency display can be switched to show the time of day. The tuner section has electronic station scanning which permits the user to scan the entire frequency band or to move to the next station on the dial. Other features include locking fast forward and rewind, a permalloy tape head, and light-touch electronic switches. Price: \$299.95.

Circle 126 on reader service card

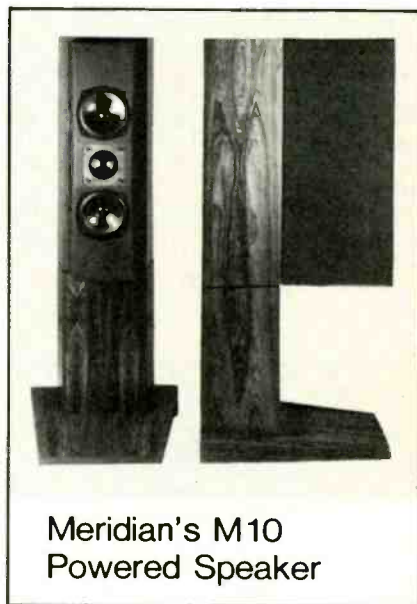


Revox Updates Its B77 Open-reel Deck

□ The Revox B77 MKII has several significant changes from the earlier B77 deck.

The new version incorporates a variable-speed control as a standard feature. When activated via a pushbutton switch, the Vari-Speed knob adjusts tape speed by as much as 2 semitones above or below the selected nominal speed of 3¾ or 7½ ips. For easier editing, the record-head shield remains in the down (open) position when the edit switch is engaged whatever the transport's operating mode. Updated transport-control logic in the B77 MKII uses four separate starting pulses for smooth tape acceleration regardless of tape speed or reel size. Other features of the B77 retained in the MKII version include a die-cast transport chassis, servo-controlled capstan motor, ASA-standard VU meters with peak-reading LEDs, and 10½-inch reel capacity. Price: \$1,799.

Circle 127 on reader service card



Meridian's M10 Powered Speaker

□ As the manufacturer puts it, the Meridian M10 active loudspeaker "sets out to reproduce correctly [the] spatial and dimensional aspects of the sound by presenting a virtual point source of sound." Midrange frequencies are handled by two 5-inch drivers mounted above and below a 2-inch dome tweeter. The midrange drivers operate in their own separate, highly damped enclosure. The bass frequencies are produced by four directly driven 5-inch drivers (two on each side of the loudspeaker) and an 8 x 12-inch passive radiator mounted behind the cabinet. The crossovers at 190 and 2,000 Hz have slopes of 24 dB per octave. Frequency response is given as 33 to 24,000 Hz +0, -3 dB. Maximum output level is approximately 110 dB sound-pressure level with music. The unit's four power amplifiers, electronic crossover, and power supply are contained in the lower part of the cabinet. Size is 39 x 16 x 18 inches; weight is 70

(Continued on page 16)

RECOMMENDED FOR MATURE ADULTS ONLY.

You're old enough to know better.
So pull out all the stops, end all the
compromising and introduce yourself to
AKAI quality and performance.
You'll find we've engineered all the



intimidation out of high-performance
hi-fi. And put a whole lot more human
engineering in. While adding 15 superbly
crafted new components that give you
just a little more for your money.

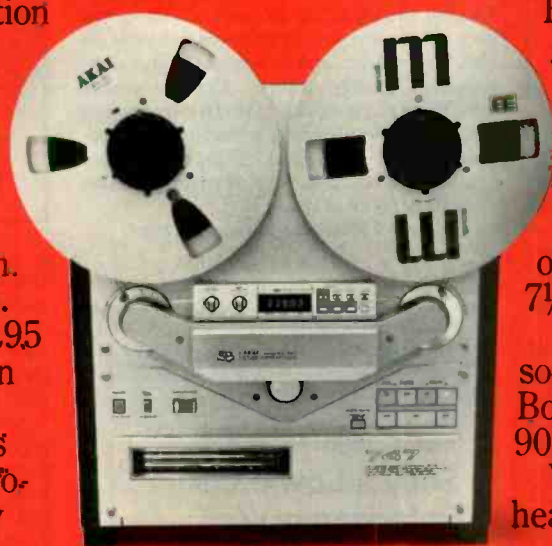
But if you're an adult, you're not about
to settle for less.

In tune with the times.

For example, take the all-new AKAI
GX-F71 cassette deck. Just for openers,
you get Dolby* B and C noise reduction
and AKAI's famous Super GX Combo
Heads. Plus the convenience of a built-
in microcomputer that automatically
calibrates bias, equalization
and sensitivity for any
tape used, Auto-Fade,
Instant Program Locat-
ing System and Intro-
Scan that plays a
10-second preview of
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One for the records.

With the AKAI AP-L95
you can always count on
a well-rounded perfor-
mance. And for obvious
reasons. A built-in micro-
computer makes it fully



programmable. A linear-tracking tone
arm virtually eliminates normal tracking
error. And a superb quartz lock, direct
drive motor keeps wow & flutter to an
inaudible minimum.

Efficiency expert.

AKAI's magnificent GX-747 repre-
sents that latest breakthrough in open-
reel technology. Because it's one of the
world's first decks designed to handle
the new "EE" (Extra Efficient) tapes.

And that means you get the equiva-



lent of 7½-ips per-
formance at a much more
economical speed of just 3¾ ips.

But that's not all. You also
get: four Super GX
Heads, two-erase heads,
Auto-Reverse Play-
back/Record, Auto-
Mute and an unheard
of frequency response
of 25-33,000 Hz ± 3dB at
7½-ips.

So visit your AKAI dealer
soon. Or write: AKAI, P.O.
Box 6010, Compton, CA
90224.

With AKAI, you've never
heard it so good.

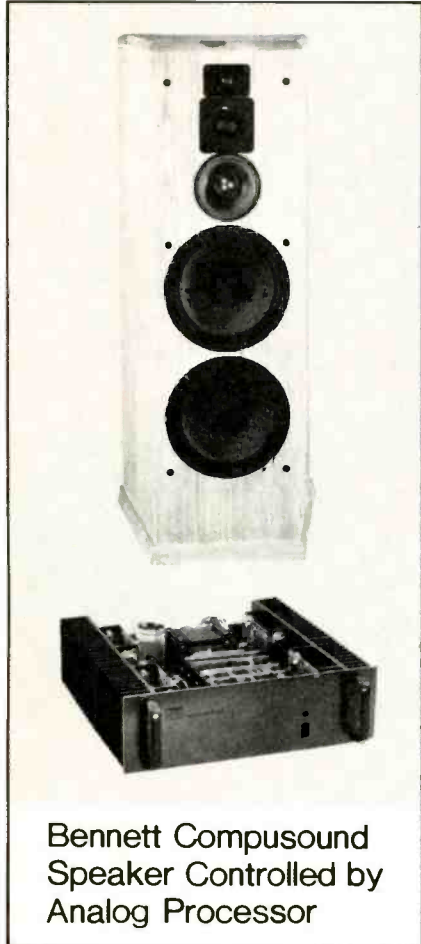
AKAI

Hi-Fi & Video.

New Products latest audio equipment and accessories

pounds. Price: \$3,950 per pair. Meridian Audio, Dept. SR, P.O. Box 653, Buffalo, N.Y. 14240.

Circle 128 on reader service card



Bennett Compusound Speaker Controlled by Analog Processor

□ The "spurious simple source emissions" said to be common with conventional speakers are claimed to be reduced by the Bennett Sound Compusound 300's analog signal-processing circuitry. The speaker system's separate processing unit (lower photo) cancels such emissions by electronically simulating them and feeding the error signal to the speaker in reverse phase.

The four-way system contains a pair of 12-inch woofers, a 7-inch lower-midrange driver, a 2-inch high-midrange driver, and a 1-inch tweeter. Crossover frequencies are 190, 750, and 2,250 Hz. Sensitivity is given as 90-dB sound-pressure level at 1 meter with a 1-watt input. Dimensions are 50 x 23 x 16 inches.

Containing four power amplifiers with a total output of 300 watts, the Compusound 300's "Computer Control System" also incorporates the system's crossover circuits. Input sensitivity is 0.75 volt for full output power. Dimensions are 16 x 16 x 5 1/2 inches. A complete two-channel system requires

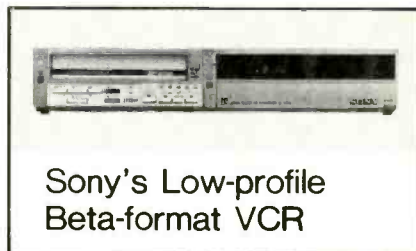
two loudspeaker systems, two amplifier/control units, and a small volume-control box. Price: \$6,000 complete. Bennett Sound Corporation, Dept. SR, P.O. Box 565, Redwood, Calif. 91335.



V.P.I.'s Heavy-duty Record Washer

□ The V.P.I. HW-16 from Singer Products is a heavy-duty, semi-automatic, wet-wash record-cleaning machine. The device is said to clean a record thoroughly, to the very bottom of the grooves, in less than 35 seconds. An alcohol-water solution or V.P.I.'s own record-cleaning solution is used to wet the record with the supplied brush. Closing the cover of the unit activates the vacuum system, which removes the solution plus any residue and prevents the accumulation of foreign matter. Contact points with the record in the HW-16 are covered with Teflon to reduce the possibility of record damage. Price: \$335. Singer Products Co., Inc., Dept. SR, 875 Merrick Avenue, Westbury, N.Y. 11590.

Circle 129 on reader service card



Sony's Low-profile Beta-format VCR

□ Designed to match in styling the latest Sony stereo components, the Sony Betamax SL-2500 is said to give higher-quality reproduction of both video and audio signals, greater precision in visual picture-search

functions, nonvisual tape indexing and retrieval features, and video editing capability. Special features include front loading of video cassettes, BetaScan II high-speed picture search, Swing Search bidirectional playback and freeze-frame capability, an electronic Tab-Marker Indexing system for random access to as many as nine selectable positions on any recorded tape, and a two-week programmable timer. The unit includes connections and a power supply for video cameras. Multiple video inputs and outputs simplify home video taping and editing using a second VCR.

Specifications include color horizontal resolution of more than two hundred and forty lines and a video signal-to-noise ratio (S/N) of greater than 45 dB. Audio frequency response at the Beta II recording speed is from 50 to 10,000 Hz with a S/N of better than 40 dB. Dimensions are 17 x 3 1/8 x 13 3/8 inches. A wireless remote control is included. Price: \$1,500.

Circle 130 on reader service card



Dry Record Treatment by Rozoil

□ Gruv-Glide is a dry record treatment that is said not only to clean records but also to reduce friction, eliminate static electricity, and improve tracking. The product consists of special chemicals that are sprayed onto a velvet pad that is then used to treat the record. One application is said to last indefinitely, although it can be removed by repeated use of liquid record cleaners. The product is also claimed to remove dirt and dust when applied properly and not to harm records even if accidentally over-applied. Gruv-Glide contains "no silicones, fluorocarbons, oils, or other harmful ingredients." A 4 1/2-ounce can will treat more than two hundred LPs. Two pads are supplied. Price: \$21.95. Rozoil Lubricant Co., Dept. SR, P.O. Box 19003, Las Vegas, Nev. 89119.

Circle 131 on reader service card

CONCORD.

Anything else is a compromise.

It's quite a claim, we realize. But our goal of constantly perfecting sound has resulted in the first line of car stereos which offers true high fidelity specifications, and therefore true high fidelity sound reproduction.

So for the first time, the uncompromising listener can hear music in the car — and feel truly at home.

As an example, let's take a look at Concord's latest, the HPL-130.

lasting Sen-alloy tape heads in car stereo, and the playback frequency response of the HPL-130 is something you really have to hear to believe (out to 20,000 Hz).

To ensure enough power to take advantage of all these features, there's a superb amplifier which — like all the others in the Concord line — is designed with exactly the same high fidelity specifications as



fader which lets you install a front/rear speaker system and adjust the balance without loss of power or frequency response.

Quite a list! But then the HPL-130 is quite a machine.

It all adds up to the first car cassette deck that can accurately reproduce your DBX recorded tapes through its built-in amplifiers, and perform comparably to the high fidelity equipment in your home.

So as you perhaps suspected, the HPL-130 costs a little more than average.

But as with all Concord equipment, we think you'll find the difference is worth the difference.

SPECIFICATIONS:

Tuner Section

Sensitivity	30dB Quieting
	1.0 Microvolts 11.2 dBf
Stereo separation:	min. 35dB
Frequency responses:	±2dB
	30-16,000 Hz

Tape Section

Frequency response:	±2dB
Standard tape:	30-15,000 Hz
Metal tape:	30-20,000 Hz
Wow & flutter:	0.08% WRMS

Amplifier Section

Maximum power:	25 watts/Ch
High fidelity power:	12 watts min. RMS
	per ch into
	4 ohms, 30-20,000 Hz with
	0.8% THD max

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DBX is the registered trademark of DBX.

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Tarzana, California 91356 (213) 344-9335



First and foremost, it features Concord's exclusive signal processor circuitry which (with our plug-in HPQ 90 adaptor) lets you enjoy the superb high fidelity of DBX recorded tapes. Alternatively, you can plug in a stereo imager or equalizer for further sound enhancement.

But quite apart from its exclusive DBX capability, the HPL-130's other features take it far beyond the current state of the art.

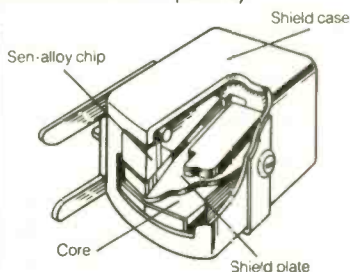
Take the tuner; it's a quartz digital four gang unit which offers significantly improved selectivity and performance over the three gang tuners used by our competitors, plus automatic scan and a 10-station preset memory.

Then there's the HPL-130's unidirectional tape mechanism, continuing Concord's 22-year-old reputation for excellence in this area with outstanding wow & flutter and speed regulation characteristics, along with the convenience of power-off auto eject.

Concord originated the concept of using high performance long-

home amplifiers. That's why we can give you *complete* specifications: 12 watts per channel into 4 ohms from 30-20,000 Hz with less than 0.8% distortion.

And if you'd like more power than that, just plug in our new HPA-25 amplifier for a 48-watt system (100 watts maximum power).



Other important HPL-130 features include a built-in bass equalizer for overcoming bass speaker deficiencies, equalizer level, loudness and treble cut/boost controls, Dolby noise reduction, speaker pop muting circuitry, adjustable dual line outputs, and a low level preamplifier front/rear

Audio Q. and A.

By Larry Klein



Technical Director Klein discusses some fine points of circuit-board layout with Dirk Roos of McIntosh.

Signal Processing

Q. I resent all these signal-processing devices that are coming on the market whose purpose is to modify the original signal in some way. Whatever happened to the concept of a straight wire with gain?

RICHARD O'BRIAN
Boston, Mass.

A. The concept is alive and well, but in my view it is philosophically confused. The straight-wire-with-gain approach is based on the unstated assumption that the program material (whether records, tapes, or FM) perfectly embodies the original performance. (If anyone out there believes that, then they are likely to believe anything—and probably own stock in the Brooklyn Bridge to boot.) But even if the recorded program were a perfect facsimile of the live original and was perfectly handled by the electronic elements in the system, the speakers would still somehow have to produce in your listening room a duplicate of the original live sound field. The chances of this happening approximate zero with conventional program material, equipment, and normal-size living rooms. In general, electronic components stand a good chance of performing like straight wires with gain, but nothing else comes close.

Given the aberrations (in frequency response, noise level, dynamic range, etc.) introduced—deliberately or otherwise—at every stage of the recording and playback process, I see nothing wrong in attempting to minimize, counter, or offset various ill effects by the use of one or more of the signal-processing devices reader O'Brian complains about. I've long since given up any hope of recapitulating the sound of any original performance in my home. If I can simply achieve *plausible* reproduction—have the music sound as it *might* be heard "live" in some adequate acoustic environment—I'll be satisfied that I've achieved my definition of high fidelity.

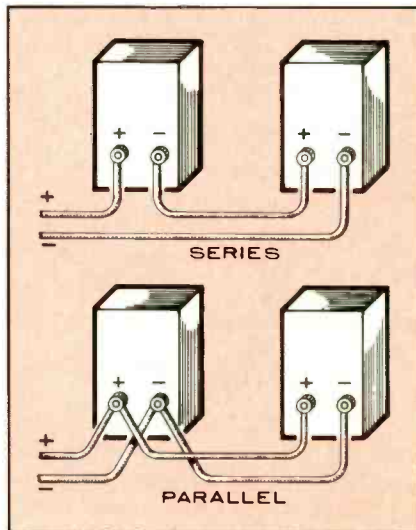
No A + B Sound

Q. My speakers are hooked up to the "A" terminals on my receiver. One day I accidentally turned the speaker-

selector switch to the "A + B" position and heard only a faint version of the program. Can you explain what's happening?

ROBERT DESIO
Memphis, Tenn.

A. Either your speaker-selector switch is miswired (unlikely) or it is deliberately wired so that when set to the A + B position the speakers on each channel are connected in *series*. I assume that the designer of your unit chose a series connection in order to keep the speaker-load impedance from falling to a value too low for the amplifier to handle comfortably. Two 4-ohm speakers connected in series present a safe 8-ohm load to the amplifier, but the same speakers connected in *parallel* (by the speaker switch) would present a total impedance of only about 2 ohms. This would cause most amplifiers to shut off or blow a fuse on strong signals (see the diagram below of series and parallel speaker connections).



If your amplifier is connecting the speakers in series when set to A + B, it is setting up a "Christmas-tree-light" configuration. This means that if either the A or B speaker pair is *not* in the circuit, then the other con-

nected pair gets no drive power except that which somehow leaks through.

There's some controversy as to the propriety of connecting speakers in series, because each speaker then sees the other's impedance as a series resistance that changes with frequency. This is likely to introduce response irregularities, particularly in the bass range, if two different brands—or models—are involved.

Speaker-switch designers must decide whether they prefer to risk amplifier problems caused by low speaker impedance or risk complaints from users who feel that the tonal quality (and volume) of their main (A) speakers is affected when they switch in the B pair. Most designers prefer to employ parallel connections in their speaker-switching circuits and place appropriate warnings in their manuals cautioning against the use of 4-ohm speakers in the A + B position. (Next month's issue will include plans for building speaker switches that can handle 4-ohm units.)

Although I've not recently come across any units designed this way, it is possible that reader DeSio's receiver connects internal 2-ohm (or so) resistors in series with the speaker circuits when in the A + B position. The purpose, of course, is to keep the speaker-load impedance high. That is a better idea than connecting the speakers in series, and I've seen some external speaker switches designed that way.

Nuclear-powered Amp

Q. A friend told me of a "nuclear powered" amplifier he saw a couple of years ago in Madison, Wisconsin. If a "nuclear amp" really exists, I would be interested in its specs and/or a comparison with a conventional amp. Do you know anything about this?

JIM MARSHALL
Redford, Mich.

A. With all the other nuclear devices around to trouble this and future generations, I'm pleased (and relieved) to say that I know of no nuclear-powered amplifier either existing or on the drawing boards.

Homemade Speakers

Q. I am interested in building speaker systems, either from kits or from scratch, but I find little or no information on do-it-yourself systems in *STEREO REVIEW* or in the general electronics magazines. Is there a publication that specializes in speaker construction?

PETER GOLDFARB
Miami, Fla.

A. Have I got a magazine for you! *Speaker Builder* is a quarterly published at 5 Old Jaffrey Road, Peterborough, N.H. 03458. Each issue includes several very well thought-out build-it-yourself speaker articles, theoretical discussions, and a host of advertisements for raw drivers, crossover parts, kits, and books. *Speaker Builder* is well worth its \$10 annual subscription cost for anyone who finds pleasure in building speaker systems. □

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CIRCLE NO. 22 ON READER SERVICE CARD

Car Stereo

By Ivan Berger



MOBILE MADNESS

LAST January I took a brief tour of custom auto-sound installers out on the West Coast. I came back with some understanding of what you get when you spend \$10,000 or more on a car-stereo installation. (Where anybody gets the money to spend on such an installation is the part I still don't understand.) I couldn't hear all the high-end systems I saw—most were still in progress—but the few I did hear proved to me that car-stereo installations can sound just about as good as all but the very, very finest home ones. I also saw some of what is involved in making them sound that way, and it isn't simple.

Much of the cost of custom systems on this level comes from the labor—or rather the craftsmanship. The equipment cost is surely not trivial—you could buy a spare, small car for what some systems run to—but the work involved in getting it all in right accounts for the greater share of big-buck installation costs.

But let's talk for a minute about those equipment costs. Imagine you want an in-dash tuner/cassette deck, bi-amplified speakers in the front and rear, a subwoofer, an equalizer, and plenty of power. That could run you about \$500 for the in-dash unit, \$300 or so per amp for five high-power amplifiers (one each for front and rear bass and mid/high frequencies, plus one for the subwoofer), and \$200 or so for each of three electronic crossovers (front, rear, and subwoofer). That brings us up to about \$2,600, and we haven't even gotten to the speakers yet. Those could run you about \$600 to \$1,000 more if you're getting fancy. Add an antenna and possibly such accessories as interference reducers, and you're well on your way to a \$4,000 system. You might want more speakers, maybe triamplification (separate amps for the tweeters and the midrange drivers as well as the separate woofer amps), and certainly a good alarm to help protect all this, so figure about \$6,000, maximum, for the equipment alone.

It's easy to see where the money's going when you spend it on hardware, but \$6,000 worth of equipment can easily cost you about that much again in installation costs. It's harder to see where the money's going there because much of the installation is de-

voted to making sure you *can't* see where your money is. Where my car, for example, has readily visible speakers in its doors and on its rear deck, the speakers in custom installations are often made invisible or *very* unobtrusive.

Those rear-deck speakers, for example, won't necessarily be built into the deck that came with the car. Instead, they're likely to be sunk down flush into the surface of a new and stiffer deck made of heavy plywood. Then, instead of separate grilles, the deck is likely to be covered with a single piece of grille cloth—and the cloth is often chosen (or dyed) to match the car's upholstery. In the front (and in the back too, if the car is a hatchback or wagon) you may find custom-designed speaker enclosures built to fit particular nooks and crannies of your car.

Those enclosures aren't just for looks by any means. Custom-built enclosures free the installer from the need to stick speakers wherever there are suitable body-panel cavities rather than wherever they'll *sound* best. They can also be engineered to provide whatever enclosure volume is best for the speakers in question rather than whatever volume may happen to be available behind a conveniently placed panel. Even when the car's own dash or body panels are used as speaker mounts, they're often modified, reinforced, or rebuilt. Resonance-damping panels may be installed in the cavities or

elsewhere too. If the dashboard doesn't have suitable spaces for the head-end and equalizer units, a custom console will be built.

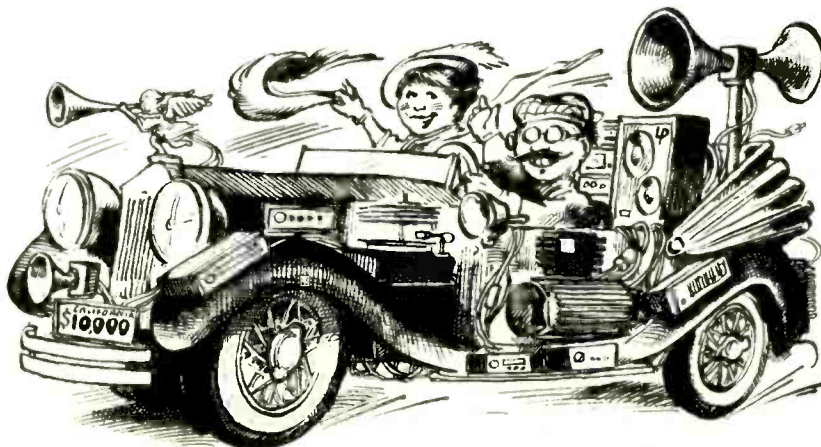
Amplifiers and crossovers in such systems are usually mounted on panels in the trunk (AudioMobile and Spectron even make pre-assembled amplifier panels). That way, the amplifiers are out of the passengers' way yet better cooled and more accessible for service than they would be under the seats or dashboard.

The car's electrical system may need modification too. Heavy-duty power cables must be run back to the amplifiers. Reasonably heavy separate wires are run directly from the battery to the in-dash unit because the factory-installed wires already in the dash are likely to carry interference from the car's electrical equipment. (That, in fact, is standard operating procedure on most good installations, not only custom ones.)

All of this takes a lot of special tools and skills. Some of the dealers I visited could mold their own enclosures out of fiberglass and resin (others had arrangements with local plastics fabricators). All of them could handle carpentry that bordered on fine cabinet-making. And all were equipped to do metal-working and upholstery too.

Many custom installers are also equipped like audio labs. Alpine's big, fat, looseleaf dealer manual, for example, includes audio test gear (distortion analyzer, dual-trace oscilloscope, real-time analyzer, radio- and audio-frequency signal generators) in its list of extra equipment that custom installers should have. Most of the dealers I spoke to used it all—to check the equipment before installation, to measure and adjust the installed system's acoustical response, and to help trace interference in the system.

So that's where the money goes: not just for equipment, but for enough carpentry, electrical work, and upholstery to finish a small den—not to mention the electrical and acoustical alignment of the finished system. One thing puzzles me, though: these systems are carefully designed and calibrated to sound natural and realistic when they leave the shop, but when they come back in for maintenance, their owners have usually adjusted the equalizers for a U-shape curve—bass and treble turned up to maximum. I guess if the buyers can't see where all their money went they're going to want to *hear* every decibel of bass boom and treble screech their outlay bought them. □



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Tape Talk

By Craig Stark



Maintenance Damage

Q. *As long as it is done properly, can cleaning and demagnetizing the heads of a tape deck cause any damage if it is done often?*

ROBERT PEBLY
Leola, Pa.

A. Certainly not if done properly. I recommend using a commercial head-cleaning solution or the 91 per cent isopropyl alcohol sold in pharmacies—not one labeled “rubbing alcohol compound,” which, though cheaper, may contain a glycerin lubricant, and definitely not acetone or carbon tetrachloride. I routinely clean my heads every dozen running hours or, if I’m testing cheap tapes that shed a lot, whenever an oxide stripe appears on the rubber pinch-roller. At the same time I use a commercial head demagnetizer, making sure (1) that the deck is turned off and no tapes are nearby, (2) that the demagnetizer itself is neither turned on nor off within arm’s length of the deck, and (3) that, once on, the demagnetizer is brought up to and withdrawn from the head area *slowly*.

In most recording studios you’ll find these two procedures practiced at least daily and always just before a master tape of really critical quality has to be made.

Grand Recording

Q. *I have a 9-foot Steinway concert grand and am having trouble recording it despite using professional-quality microphones and a five-year-old, quarter-track, 7½-ips open-reel deck. The dynamic range and clarity I get from dubbing commercial piano LPs is actually better than what I can capture live! Is my problem the microphone preamp in my deck?*

CHARLES M. HOLMES
St. Petersburg, Fla.

A. There are several possible reasons for your problem. A big concert-grand piano, particularly when located outside a concert hall or a specially designed recording studio, is a bruiser to capture on tape. Yes, your microphone preamp stage may very well overload *before* the signal reaches

the record-level control, especially if the mikes are closely placed. If the lack of clarity is not due to overload on transients too brief to show up on your deck’s meters, it may result from your use of omnidirectional microphones in a room whose dimensions are so small that the first “echoes” off the walls and ceiling arrive at the pickups much sooner than they would in a more spacious acoustical environment. Even under professional recording conditions it is not unusual for an engineer to use a little limiting (automatic dynamic-range restriction) between the microphone and the recorder. If it is *judiciously* done, the artist himself won’t notice that you’ve adjusted the dynamic range to the equipment’s limitations.

Another point to consider is that the microphones you are using are probably designed for “balanced line” operation (two signal conductors plus a braided shield), while the plug connecting them to your deck (or the jack inside the deck) is “unbalanced”—that is, it uses a single signal conductor plus shield. You can make this combination work, no doubt, but you cannot make it work *optimally* in terms of maximizing the potential signal-to-noise ratio and the flatness of the frequency response. Electro-Voice, Shure, Neumann, and others manufacture “microphone cable transformers” designed to mate your kind of microphone output to your deck’s kind of input. Cheap models would do you little good; expect to spend \$25 to \$50 each, and get specific recommendations from a local professional recording studio as to reliable nearby sources.

Finally, a quarter-track stereo machine with a top speed of 7½ ips is just a bit marginal if you’re really trying to produce professional-sounding results from a big Stein-

way. Looking at your deck’s original specs, the wow and flutter should be lower and the signal-to-noise ratio should be higher—as they would be on a top-notch consumer open-reel deck of today’s vintage.

Deck Updating

Q. *My open-reel deck was never sold as a super top-quality unit, and it has given good service with moderate use and good maintenance for thirteen years. I wonder, first, how it compares with today’s units, second, whether by readjusting bias and changing heads I could make it use the new “EE” tapes, and, finally, whether the addition of a dbx noise-reduction unit would make a significant improvement?*

PAT MICKLE
Santa Ana, Calif.

A. After thirteen years, I would say you’ve gotten your money’s worth out of your deck. A 1969 Rolls Royce might indeed be worth fixing up, but not a 1969 Buick. Since your deck was new the available signal-to-noise ratios and wow/flutter figures have improved tremendously. Even if your deck were still performing up to its original specifications, it would rank among the “cheapies” of today.

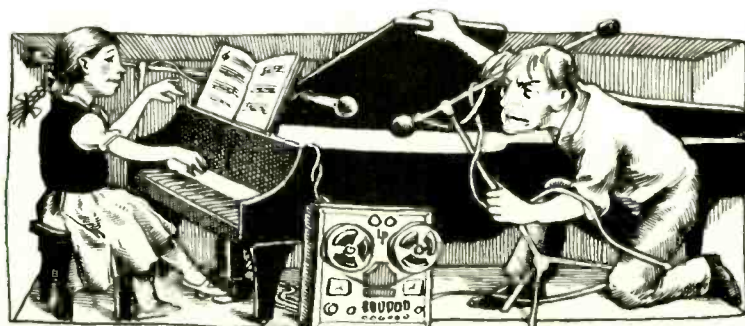
Second, the bias oscillator with which your deck is equipped simply does not have enough output to produce the bias current required for EE tapes, and the recording head would doubtless have to be replaced as well. In addition, the EE format calls for different playback equalizations than those of a non-EE machine, and this would involve rather costly redesign. The dbx system is *capable* of improving the signal-to-noise ratio, but using it with such an old deck might pose problems related to frequency response, for any departure from flatness will be doubled by the 2:1 linear compression/expansion dbx employs.

Chrome on Ferric?

Q. *Does it make a big difference if you record a normal-bias tape with the recorder’s controls set for CrO₂, and if you do, should you play back at the normal or the chrome setting?*

PAUL FISHKIND
Yorktown Heights, N.Y.

A. Yes, there will be a loss of high frequencies if you record a ferric tape in the CrO₂ position. Try playing such a bungled recording using the ferric (120-microsecond) playback position. The restored treble may outweigh the increase in tape hiss that will also occur. □



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SHURE

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CIRCLE NO. 29 ON READER SERVICE CARD

Technical Talk

By Julian D. Hirsch



Larry Klein

• Testing Tone Arms and Cartridges •

LIKE the turntable, the phono cartridge cannot be tested in isolation, since it requires a mechanical means (the tone arm) to couple it to the rotating record. The electrical output of a cartridge results from the relative motion of the stylus and the cartridge body. The function of the tone arm is to support the cartridge in a fixed relationship to the plane of the rotating record so that the groove modulation can move the stylus and generate a proportional electrical output voltage.

Most tone arms are *pivoted*, the cartridge end moving in an arc as the stylus travels along the spiral record groove. A second pivot allows vertical arm movement to permit handling of the pickup and to accommodate record warps. Ideally, the cartridge axis (actually the axis of the stylus cantilever viewed from above) should be tangent to the record groove. This is because records are cut with a head guided by a lathe that moves the cutting stylus along a record radius. The pickup stylus should follow an identical path, and any significant departure from groove tangency will increase playback distortion.

If the pivoted tone arm is positioned so that the stylus "overhangs" the turntable center by some critical distance and the cartridge axis has an angular "offset" from an imaginary line joining the arm pivot to the stylus, the departure from tangency (the tracking error) can be reduced to zero at two points and kept quite small elsewhere on the record. Since the mounting and alignment of a cartridge are critical for achieving low tracking error, most arms and

record players are supplied with an alignment gauge or other installation aid.

One of our first tests, after installing the cartridge in the arm according to the manufacturer's instructions, is to measure the actual tracking error at a number of radii from 2 to 6 inches. This is done with a special protractor that slips over the turntable spindle and has reference lines that are set parallel to the cartridge body (or headshell) axis in order to measure the error. The actual error in degrees is not as important as the ratio of error to the radius. It is this ratio that affects the playback distortion, and this is why our reports state the tracking error in degrees *per inch* instead of the largely meaningless maximum degrees often listed in tone-arm specifications. An error of 0.5 degree per inch or better is common for good arms and adequately low.

AFTER balancing the arm according to instructions, we set the tracking-force dial to its major calibration points (usually 1 to 3 grams at intervals of 0.5 gram) and measure the actual vertical force with a Shure SFG-2 gauge. This has been checked against balance weights and found to be accurate within the 0.05-gram resolution of its scale. An error of 0.1 gram in the tracking force is entirely negligible, and even 0.2 gram is of no importance if it is on the high side (too low a force is less desirable).

The calibration of the arm's antiskating scale is checked by playing the German Hi-Fi Institute No. 2 test record, which has 300-Hz tones recorded at increasing levels; these have sufficient range to tax the track-

ing abilities of any cartridge. Played without antiskating compensation, one of the levels on this record will be mistracked, causing audible distortion in the right channel. The antiskating is then adjusted to eliminate the distortion and still higher levels are played until the distortion returns. The process is repeated until, at some high recorded level, the distortion is audibly equal in both channels. The setting of the antiskating dial will usually be somewhat greater than the recommended value when this is achieved. We have recently received the new Shure TTR-117 test record; its antiskating test is used in a similar manner, and it appears to be an exceptionally easy disc to use for this purpose.

To measure the effective arm mass (as "seen" at the stylus position) we use a small loudspeaker whose voice coil has been modified to drive a spring. The fixture is placed on the turntable and the free end of the spring is attached to the headshell, as close to the stylus as possible, by a piece of Mortite or similar putty-like material. The speaker is driven by a low audio frequency that is varied slowly until the entire arm is seen to move up and down. At the exact resonance of the tone-arm/cartridge system the amplitude of movement may be so large that the drive level has to be reduced considerably. From the frequency at which resonance occurs, the total effective mass of the arm plus cartridge can be determined, either by calculation or from a calibration curve prepared for the fixture with the aid of a number of standard weights instead of the arm. Subtracting the known mass of the

Tested This Month

Teac X-1000R Open-reel Tape Deck • SAE P101 Preamp
Harman Kardon PM660 Integrated Amplifier • JBL L46 Speaker System
Dual C844 Cassette Deck

cartridge (from the manufacturer's specifications) from the total gives us the net effective mass of the arm.

The setup for a cartridge test is identical to that for arm and/or turntable testing. Only the specific test records and measurements differ. After the cartridge installation and tone-arm adjustment, our first step is to determine the optimum tracking force for the cartridge. To do this, we play some records with very high-level test signals that emphasize different parts of the audio-frequency range. The antique Cook Series 60 (a mono record) has a sequence of low-frequency signals (down to 32 Hz) recorded at extremely high amplitudes (the groove modulation is visible to the naked eye at a distance of several feet). The minimum force needed to track this record is determined. Another test involves the German HiFi Institute No. 2 record (the same one we used to set the antiskating compensation of the arm). Using both the nominal (or mid-value) and the maximum recommended force, we determine the highest level that the cartridge will track without audible distortion. We consider the 60-micrometer level to be a minimum tracking requirement for a high-fidelity cartridge at its maximum allowable force, and only a few cartridges can play the 100-micrometer

quency and automatically plots the output frequency and amplitude of the cartridge on a chart. The frequency response is measured with a number of capacitance loads between 100 and 400 picofarads. The load giving the flattest overall response is used for subsequent measurements (unless the manufacturer's recommended load gives essentially similar results).

Playing both left and right channels of the record through each of the cartridge channels in turn gives us the frequency response and crosstalk of the cartridge for both channels. The square-wave response is measured with a CBS STR 112 test record, which has four 1,000-Hz square-wave bands—one in each channel as well as one cut laterally and one cut vertically. The amount of overshoot on the leading edge of the square wave and any ringing visible on the flat portions indicate the flatness of the cartridge response in the upper audio range and the degree to which its stylus resonance is damped.

The output voltage is measured by a meter connected directly to the cartridge but with the normal load termination added. The 3.54-cm/sec. 1,000-Hz standard-level bands of the CBS STR 100 record are then played. Both channels are measured, and their ratio (expressed in decibels) is the

gle of the playback stylus. Although this method is not the most accurate means of determining vertical stylus angle, it is adequate for our purposes and does give a valid indication of the relative vertical angles.

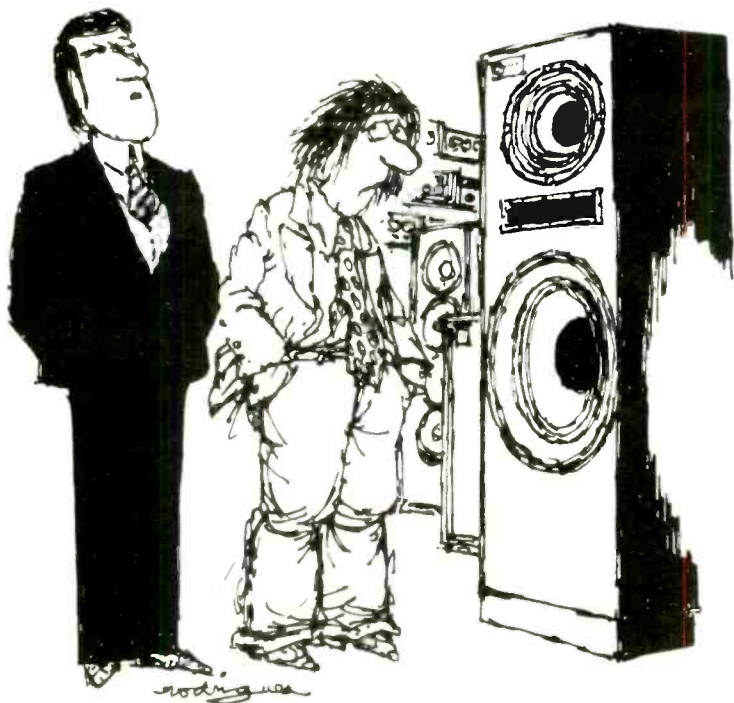
We measure cartridge distortion in two frequency ranges: middle and high frequencies. For the first, we use the Shure TTR-102 test record. This is an intermodulation (IM) test record with mixed 400- and 4,000-Hz tones whose combined peak level extends over a range of 6.9 to 27.1 cm/sec in several bands. At the rated tracking force, this record is played into a standard Techron (Crown) IMA intermodulation analyzer. The IM distortion readings usually lie in the range of 1 to 2 per cent up to some velocity where the cartridge begins to mistrack; at that point it begins to rise steeply. This is an indication of the maximum recorded velocity the cartridge can track at the test force in the mid-frequency range. However, the actual value of the distortion reading does correlate well with its audible qualities below the point of mistracking (in much the same manner as in the case of most amplifiers whose distortion rating below the point of clipping has little or nothing to do with its sound).

The second distortion measurement uses the Shure TTR-103 test record, which contains bands of specially shaped 10.8-kHz tone bursts recorded at a 270-Hz repetition rate and with peak velocities from 15 to 30 cm/sec. A reference-level reading is taken from the meter using the total output of the cartridge. Then a filter is inserted in the signal path to remove the 10.8-kHz frequency, leaving only the 270-Hz repetition-rate component. In a distortionless system, this will be zero. In the case of a real cartridge, there will always be some of the 270-Hz component present, and its amplitude, relative to the total signal, is the "distortion." The readings usually begin at less than 1 per cent at 15 cm/sec, increasing slowly to perhaps 2 or 3 per cent at 30 cm/sec.

OUR final cartridge test is a subjective test of tracking ability using Shure's "Audio Obstacle Course" records. A few years ago, the original "ERA III" record was a convenient and useful test of a cartridge's tracking ability, but as cartridges improved (and the V15 Type III was succeeded by the Type IV) Shure came out with the "ERA IV" version, an even more severe test. With the advent of their Type V, they have come out with the TTR-117 record, which is essentially a test of a cartridge's overall tracking ability through the audio range using a triple-tone signal instead of music. We expect to use all three of these and other records as well, depending on the capabilities of the cartridge we are testing.

Finally, of course, we just listen. No attempt is made to limit the musical fare only to the latest audiophile records (which tend to sound impressive with any cartridge able to track them); instead, we use an assortment of records, both new and old. This period of extended use will, we hope, reveal any qualities, good or bad, that our tests have not already disclosed, or perhaps simply confirm the verdict of the instruments. □

Test Reports begin overleaf



"... Indeed, sir, incredibly realistic reproduction! You'd swear you were sitting in the last row of the balcony at Symphony Hall. ..."

maximum level on this record at *any* tracking force.

The cartridge's frequency response and crosstalk are measured by playing the CBS STR 100 test record (which sweeps from 40 to 20,000 Hz with a constant recorded velocity) and connecting its amplified output to a Urei response-plotting system. This instrument "tracks" the incoming signal fre-

channel unbalance. The vertical stylus angle is measured with the CBS STR 160 test record, which has a number of bands recorded with a 400-Hz signal cut at different vertical stylus angles. The output of the cartridge is displayed on a spectrum analyzer, and the second-harmonic distortion can be seen to go through a minimum on the band that corresponds to the vertical tracking an-

Equipment Test Reports

By Julian D. Hirsch
Hirsch-Houck Laboratories



By Craig Stark
Starksonic Studio



Photo by Roy Schneider

Teac X-1000R Open-reel Tape Deck

- Teac X-1000R Open-reel Tape Deck
- Size: 17 x 17¼ x 10³/₈ inches
- Weight: 48½ pounds
- Price: \$1,400

THE Teac X-1000R is a fully bidirectional open-reel recorder designed to use both conventional tapes and the newly introduced EE ("Extra Efficiency") type on reel sizes up to 10½ inches. It also incorporates a dbx Type II noise-reduction system and operates at either 7½ or 3¾ ips in the regular home-stereo quarter-track format. The closed-loop, dual-capstan drive of the X-1000R uses a servo-controlled d.c. motor, and the capstan shafts are magnetically "floated" at the bottom to minimize low-frequency mechanical noise. Separate d.c.

motors are used for the reels. A total of six heads (erase, record, and playback for each direction) are employed, and the light-touch transport controls operate through solenoids under microprocessor control.

Unlike most tape decks, the five-digit electronic tape counter of the X-1000R can be set either to register tape footage or, more conveniently, to read out directly in hours, minutes, and seconds. In conjunction with PROGRAM, REPEAT, and CUE pushbuttons it can also be used to define a specific block of recorded material to be repeated or skipped within the reel. The counter is driven by an inertial roller on the right side of the head nest; a corresponding roller on the left side contains a sensing post to detect the presence of a foil strip to initiate the auto-

matic-reverse sequence. An additional pair of spring-loaded tension arms is provided to smooth tape motion further, minimizing wow-and-flutter at the cost of making the threading of the tape slightly more tricky. Two pushbuttons permit the user to "search to zero" (STZ) or to a selected cue point (STC) at high speed. An electrically assisted braking system slows the tape gently to a stop at the desired points.

Green LEDs indicate the direction of tape travel at the two normal speeds, and red LEDs accompany the PROGRAM, REPEAT, PAUSE, RECORD, and DUPLI-SYNC buttons. This last is used only in conjunction with certain other Teac recorders for dubbing, which can also be done by convention-

(Continued on page 28)



Beyond quartz, the world's most precise tuning system, lies the extraordinary ability to expand sound.

Imagine you're in a room with Technics SA-828 receiver. What you hear is beautiful stereo. Then you activate Technics variable Dimension Control. Incredibly, the sound begins to move. The stereo image widens to the point where the music begins to surround you. You're intrigued by its richness and depth. You're enveloped by a new experience in sound. That's the wonder of the patented technology in Technics Dimension Control.

Just as wondrous is quartz synthesis, the world's most precise tuning system. That's how the SA-828 quartz synthesizer eliminates FM drift as well as the hassle of tuning. You can even preset and instantly retrieve 7 FM and 7 AM stations, all perfectly in tune.

Another perfect example of Technics technology is our

synchro-bias circuitry. What it does is constantly send minute amounts of power to the amplifier transistors. And since they can't switch on or off, switching distortion is eliminated.

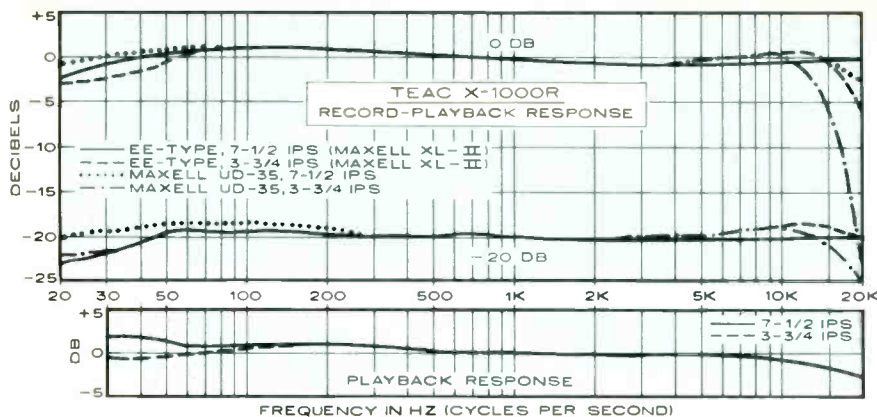
And when it comes to power, the SA-828 has plenty: 100 watts per channel minimum RMS into 8 ohms from 20Hz to 20kHz with no more than 0.005% total harmonic distortion.

The SA-828 goes on to show its sophistication with a super-quiet phone equalizer, soft touch program selectors, fully electronic volume control, and a Dimension Control display that doubles as a power level meter.

Technics SA-828 is part of a full line of quartz synthesized receivers. Hear it for yourself. Beyond its quartz synthesizer lies a new dimension in sound.

Technics
The science of sound

CIRCLE NO. 34 ON READER SERVICE CARD



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

al techniques. The RECORD LED begins flashing when a separate REC MODE switch is pressed to ready the system, and it remains on constantly while the recording is being made.

Separate concentric controls are provided for microphone and line inputs, which are monitored on a pair of VU-type meters calibrated from -20 to +5 VU. Another set of knobs adjusts the output simultaneously at the rear jacks and at the headphone connector. The REC MUTE button is provided with an AUTOSPACER control that varies the silent time between selections from 0 to 8 seconds. Pushbuttons for external timer control in either direction interact with the setting of the AUTO REV switch, and a pull-out/turn knob (similar to the on-off/volume control on many TV sets) permits varying playback speed by ± 6 per cent to

correct an off-pitch recording. Three push-buttons permit selection of typical LH-I, LH-II, and EE tapes, but without the option of fine-tuning bias and equalization. Additional buttons switch between source and monitor, dbx noise reduction in/out, high or low tape speed, and large or small (7- or 10 1/2-inch) reels. A tape-lifter defeat lever is included to hold the tape against the heads to facilitate editing.

The rear panel of the X-1000R contains the usual line-level input and output jacks, plus additional connectors for the Dupli-Sync function and an optional RC-100 remote-control accessory.

● **Laboratory Measurements.** While no test data were supplied with the X-1000R, Teac did provide the actual tapes used for factory adjustment of two of the three bias/

equalization positions. These were Maxell XL-II (for EE) and Maxell UD35 (for LH-II), and I used them for my measurements. For the LH-I position I achieved the best results with 3M's 207.

Playback-equalization accuracy was measured using Magnetic Reference Laboratory test tapes. As shown in the accompanying graph, the response was exceedingly flat at both 7 1/2 and 3 3/4 ips. The very mild treble rolloff at 20 kHz for 7 1/2 ips undoubtedly reflects a slight azimuth difference between the playback head and test tapes. (The 3 3/4-ips tape stops at 10 kHz.)

Overall record-playback frequency response was impressively flat throughout the 20-Hz to 20-kHz range. At the 0-dB level the EE tape (Maxell XL-II) was superior to traditional formulations at the extreme high end, particularly at the 3 3/4-ips speed, where its response was very close to that of other tapes running at 7 1/2 ips. At the conventional -20-dB test level the advantage was 3 dB at 20 kHz. More impressive was the nearly identical frequency response of

**Teac X-1000R
Open-reel Tape Deck**

● **Comment.** The Teac X-1000R is obviously a top-quality machine, and its inclusion of the dbx noise-reduction system gives it a dynamic range nearly equivalent to that of a digital recorder. Copying master tapes and recording pure tones at 3 3/4 ips produced a very slight grainy quality, but the 7 1/2-ips performance was excellent. And FM and disc copies made at either speed were just fine. Obviously, the Teac X-1000R is an excellent machine for the serious home recordist, and I recommend it strongly. —Craig Stark



"You'll take it? Fine! Now, let's see—where did I put those pot holders . . . ?"

all the tapes when shifting speed from 7 1/2 to 3 3/4 ips. Frequency-response error induced by the dbx noise-reduction system was slight: within a ± 2 -dB range except at the lowest frequencies (below 40 Hz).

Distortion at a 0-VU input measured 0.3 per cent at 3 3/4 ips for the two Maxell tapes and 0.5 per cent for 3M 207. The overload margin (3 per cent third-harmonic distortion) was reached at input levels of +6.2 dB (3M 207), +7.6 dB (Maxell UD-35), and 10.5 dB (Maxell XL-II). At 7 1/2 ips the 0-VU figures were 0.2 per cent for Maxell UD-35, 0.3 per cent for 3M 207 and Maxell XL-II; their respective overload margins were +6.2, +10.4, and +5 dB.

Unweighted signal-to-noise ratios at 3 3/4 ips measured 56.3, 56, and 59.2 dB for the 3M 207, UD-35, and XL-II tapes, respectively. Adding IEC A-weighting and dbx noise reduction, these figures improved to 84.2, 82.2, and 86.3 dB. At the 7 1/2-ips speed the corresponding figures for the three tapes were: 61, 60, and 59.4 dB unweighted and without dbx, 88.2, 82.2, and 88.5 dB with A-weighting and dbx noise re-

(Continued on page 30)

A cowboy wearing a white hat and a red shirt is riding a brown horse through a brushy, hilly landscape. He is holding a lasso in his right hand. In the foreground, a brown and white cow is running towards the viewer. In the background, several other cows are visible, some running and some standing. The scene is set in a natural, outdoor environment with green and brown vegetation.

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Kings: 10 mg "tar," 1.0 mg nicotine—100's: 16 mg "tar,"
1.1 mg nicotine av. per cigarette, FTC Report Dec. '81

duction. All of these figures are outstanding for a quarter-track analog recorder.

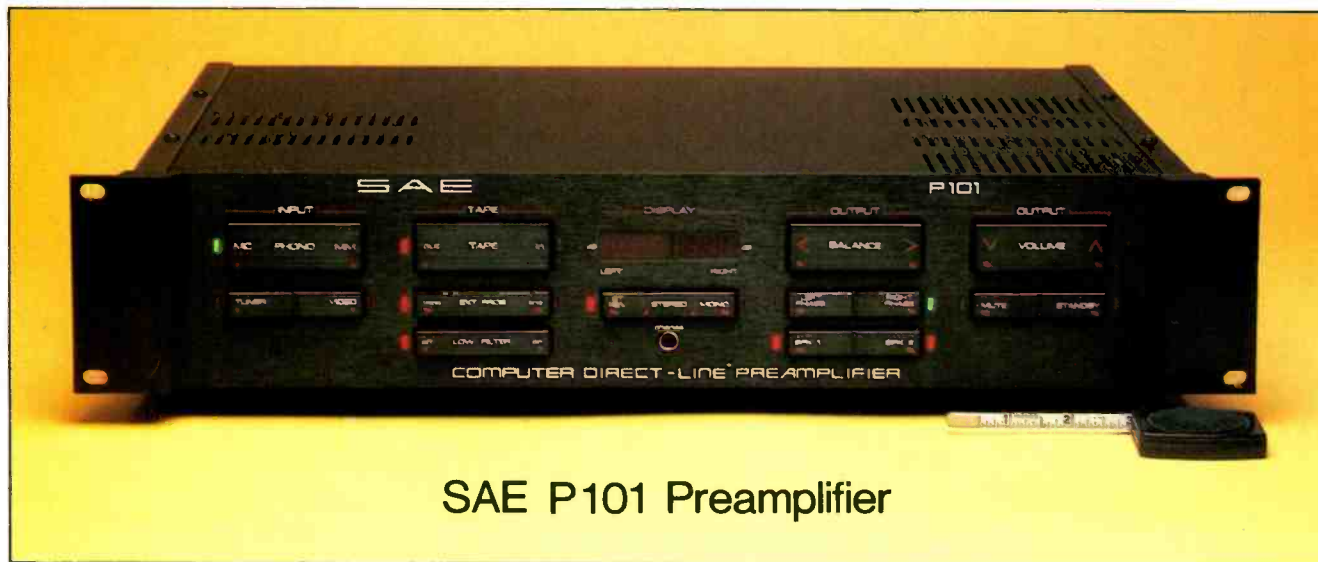
Wow-and-flutter measured 0.08 per cent and 0.04 per cent (wrms) in the forward and reverse directions at 3³/₄ ips (0.12 and 0.07 per cent on the more stringent DIN standard). At 7¹/₂ ips the forward/reverse

measurements were 0.03 and 0.02 per cent (wrms) and 0.08 and 0.04 per cent (DIN), again very impressive performance.

Fast-forward and rewind times averaged 56.5 seconds for a 7-inch reel of 1,200 feet and 172.5 seconds for a 3,600-foot 10¹/₂-inch reel. A line-level input signal of 55 mil-

ivolts (mV) was necessary to achieve a 0-VU indication with an output of 0.8 volt. The microphone input required 0.19 mV to achieve 0 VU and would accept up to 0.015 volt before overload.

Circle 141 on reader service card



SAE P101 Preamplifier

- SAE P101 Preamplifier
- Size: 19 x 12¹/₂ x 3¹/₂ inches
- Weight: 20 pounds
- Price: \$650

THE SAE P101 Computer Direct-Line preamplifier is a high-performance device with several advanced control and circuit features. As its name suggests, the P101 uses digital circuits to perform almost all the functions normally handled by physical switches and potentiometers. The knob-free front panel contains only momentary-contact flat pushbuttons with adjacent lights to show their status. The "Direct-Line" part of the preamplifier's name refers to the fact that all physical signal paths are at or immediately adjacent to the rear panel where the signal-input and -output connectors are located. All signal switching is performed (separately for each channel) by tiny relays with gold-plated contacts; these are activated by digital logic circuits that respond to a light touch on a front-panel button.

The P101 has no tone controls, and a LOW FILTER is its only conventional signal-modification function. It has inputs for both moving-magnet (MM) and moving-coil (MC) phono cartridges through separate preamplifier sections optimized for their functions. The gain of the MC preamplifier is automatically adjusted by the impedance of the cartridge connected to it, adapting the circuit for the probable output voltage of the cartridge. The capacitance and resistance of the MM phono input are separately switchable to match the cartridge's loading requirements. The two high-level inputs are marked TUNER and VIDEO. There is a single

set of TAPE connections with a monitoring (but not dubbing) facility, and an external-processor loop that can switch devices such as equalizers and other signal modifiers into the line or tape signal paths. It can also be used for a second tape deck. The preamplifier's operating mode can be set to stereo, reversed stereo, or mono.

A unique and useful feature of the SAE P101 is its switchable phase (polarity). Each channel can be switched independently to an inverting or a non-inverting mode, making it easy to correct for an occasional recording with out-of-phase channels or an inadvertent speaker-line polarity reversal. There are two sets of main preamp outputs in the rear which are always in opposite phase. This makes it possible to drive a stereo power amplifier in a bridged mode for high-power mono output. (When a stereo amplifier's two inputs are driven in opposite phase and a single 8-ohm speaker is connected across the two "hot" speaker outputs, it becomes a mono amplifier of roughly twice the normal stereo 4-ohm power-output rating. Also, by operating *both* front-panel phase switches, the absolute phase of the program can be reversed easily (there are those who claim that absolute polarity, from the original sound source to the loudspeaker cone motion, is important for fully natural sound).

There is provision for an optional speaker-switching device that plugs into a socket in the rear of the P101, making it possible to switch the power-amplifier outputs to either or both of two pairs of speakers. There is a headphone jack on the front panel. Whenever the preamplifier is plugged into an energized a.c. outlet, a small "on-standby"

power supply keeps the computer memories active and illuminates a red LED next to the STANDBY button. A momentary touch of STANDBY turns on the preamplifier, extinguishes the light, and turns on red LEDs next to the various last-used selector buttons (input source, tape monitoring, etc.). Touching the GAIN button reduces the preamplifier gain by 15 dB.

The variable functions of the P101 (volume and balance) are performed by micro-processor-controlled resistor-ladder attenuators. The volume and balance can be changed in either direction in steps of 1.5 dB by a momentary touch on the corresponding button. Holding in a button causes the stepping to continue at a rate of about 6 dB per second. Although the changes are in discrete steps, the audible effect is of a continuous level variation (the total volume-control range is 94.5 dB). A pair of numerical LED displays in the upper center of the panel shows the gains of the left and right channels, including the effect of any balance offset between the channels (which is maintained during overall volume changes), but does not register the effect of the GAIN circuit.

The two pairs of phono-input jacks (for MM and MC cartridges) are gold plated for low contact resistance. The input termination of the MM input can be switched to 22,000, 47,000, or 100,000 ohms by a slide switch near the jacks, and the shunt capacitance can be set to 100, 200, or 400 picofarads by another similar switch. The SAE P101 employs low-impedance circuits, including its RIAA phono-equalization feedback network, which is driven by a small power amplifier from the output of the

phono-preamplifier stages. The combination of low-impedance circuits and the separate relays used for switching each channel gives the P101 exceptional isolation between inputs as well as between channels (typically 90 dB or better).

● **Laboratory Measurements.** All tests of the SAE P101 were made using the IHF standard output termination of 10,000 ohms in parallel with 1,000 picofarads and the standard gain settings specified in EIA Standard RS-490. The distortion of the P101 is rated at less than 0.008 per cent; in our measurements it did not exceed 0.003 per cent for any output voltage up to 10 volts at 1,000 Hz. At the rated output of 2.5 volts, the distortion was no more than 0.004 per cent from 20 to 20,000 Hz, except that at 20 Hz the signal harmonics could not be resolved from power-line harmonics.

The frequency response through a high-level input was flat within about ± 0.25 dB (the approximate resolution of the test equipment) from 20 to 20,000 Hz. The RIAA phono equalization was accurate within ± 0.3 dB from 200 to 20,000 Hz, rising to +1.5 dB at 20 Hz. It was virtually unaffected by the inductance of a typical phono cartridge in the input circuit. The phono (MM) input overloaded between 260 and 270 millivolts (mV), and the overload limit for the MC input was about 14 mV. The low filter began to roll off the response below about 100 Hz; it was -3 dB at 30 Hz

SAE P101 Preamplifier

● **Comment.** From a human-engineering standpoint, we found the SAE P101 very easy to operate and totally without such common vices as switching transients or any other noises (it was completely silent). The signal isolation afforded by its relay switching was truly extraordinary: the largest available signal fed to the tuner inputs produced absolutely no audible feedthrough to any other input at maximum gain and with open-circuited inputs. This is one preamplifier that does not need shorting plugs in its unused input jacks to prevent unwanted noises while switching; not only is there no noise to begin with, but the selection system permits changing

from any input to any other directly without passing through the others. Although the test meters clearly showed the 1.5-dB steps, the digital volume and balance controls worked so smoothly that acoustically they seemed to be continuous in their action.

The SAE P101 is a very well constructed unit, built for the most part on a single large fiberglass circuit board with virtually no hand wiring or internal cabling. SAE claims that direct control of the signals leads to sonic benefits. Although we were unable to confirm any special benefits, the P101 was easily the equal of any preamplifier we have used and better than many in the important respects of freedom from noise and switching transients, lack of crosstalk, and overall ease of operation.

—Julian D. Hirsch

and continued to drop at an apparent 6-dB-per-octave rate below that frequency.

The impedance of the MM phono input was as specified, including both its resistive and capacitive components. The 1,000-Hz impedance of the MC input was about 350 ohms. The preamplifier input sensitivity for a reference output of 0.5 volt was 52 mV for TUNER, 0.87 mV for PHONO (MM), and 0.057 mV for PHONO (MC). The A-weighted noise

in the preamplifier output at reference gain settings was below our measurement limits (100 microvolts, or -74 dB referred to 0.5 volt) for all inputs. The GAIN button reduced the gain by 14.7 dB. The output clipped at just above 10 volts, although it was perfectly distortion free only a few millivolts below that level.

Circle 142 on reader service card



Harman Kardon PM660 Integrated Amplifier

- Harman Kardon PM660 Integrated Amplifier
- Power Rating: 80 watts per channel
- Size: 17 1/4 x 14 1/4 x 4 3/4 inches
- Weight: 26 pounds, 11 ounces
- Price: \$529.95

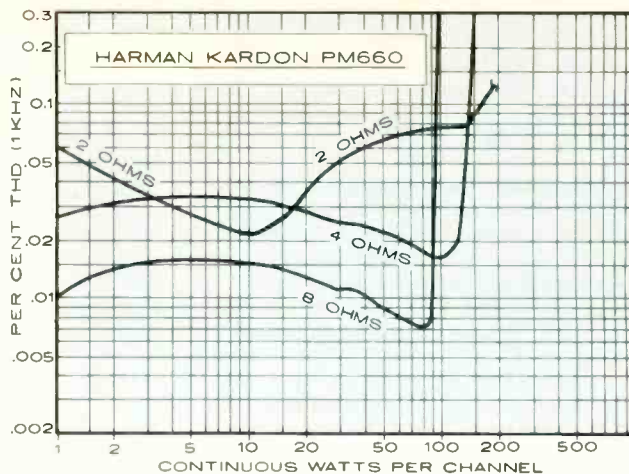
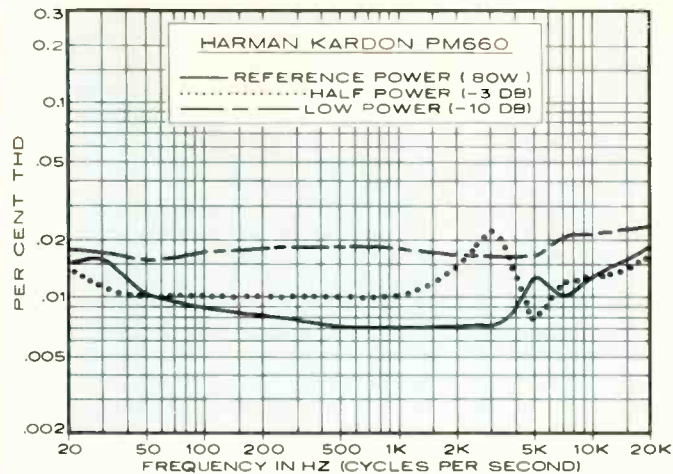
HARMAN KARDON, for many years an exponent of "wide-band" amplifier design, has recently announced a new line of

integrated amplifiers which, in addition to having wide bandwidth, feature "high current capability" and low overall negative feedback, the latter being in the interest of reducing transient intermodulation (TIM) distortion.

Heading the company's new 600 Series audio-component line is the PM660 integrated amplifier. It is rated to deliver 80 watts per channel to 8-ohm loads from 20 to

20,000 Hz with no more than 0.02 per cent total harmonic distortion. The front-panel configuration and operating controls of the PM660 are, for the most part, conventional. The tone, balance, and volume controls are knob-operated, as are the MODE and TAPE OUT selectors (MODE selects normal or reversed-channel stereo and mono operation). The PM660 offers independent program se-

(Continued overleaf)



lection for listening and tape recording, and its TAPE OUT knob has positions for OFF (which isolates the tape outputs), SOURCE (the usual arrangement, in which the program being heard is also fed to the tape decks), and TUNER (for recording from a tuner while listening to phono or another source). It also has two DUBBING positions for copying tapes from either of two tape decks to the other.

The program is selected by means of five pushbuttons at the upper right of the panel. Three mechanically interlocking buttons control AUX, TUNER, and PHONO sources. Two others, which can be engaged individually or together, are the TAPE MONITOR switches for the two tape decks. Across the upper part of the panel is a narrow "dial window" behind whose tinted glass are a number of illuminated identifiers for the input selections as well as the power-on indication. When the amplifier is first turned on, WAIT appears in yellow, and after a few seconds it is replaced by a red ON when the internal delay circuit connects the speaker outputs to the amplifiers. A large power-switch button is at the left of the window.

Most of the other operating controls of the H/K PM660 are "push-on, push-off" buttons. They include speaker selectors for two pairs of speaker outputs, a tone-defeat control to bypass the tone-control circuits, infrasonic and high-cut filters, loudness compensation, audio mute (a 20-dB gain reduction), and a MAIN DIRECT button that bypasses all signal-modifying controls and circuits except for the volume control and reduces the gain by 7 dB. This is a suggested manner of using the PM660 as a basic power amplifier.

The Harman Kardon PM660 has two phono inputs, selectable with a second push-button switch. The capacitance of the PH1 input can be adjusted by a small knob on the panel to add 50, 100, or 200 picofarads to the amplifier's "normal" (but unspecified) input capacitance. The PH2 input has a fixed termination, but it can be set for either a moving-magnet (MM) or moving-coil (MC) cartridge by another small button beneath the input selector. In the MC mode the signal passes through a head amplifier for low-output MC cartridges.

The PM660 is perhaps unique among modern amplifiers in its use of discrete

transistor circuits rather than integrated circuits throughout. The advantage claimed for this is a reduction in what Harman Kardon calls "thermal distortion," presumably caused by heat transfer between portions of an integrated-circuit chip. The rear of the PM660 presents a conventional appearance, including insulated binding posts that grip the ends of the stripped speaker wires, and three a.c. outlets, two of which are switched.

● **Laboratory Measurements.** Since the PM660 is relatively large and massive for its power rating, it became only moderately warm above the output-transistor heat sinks during the preconditioning period and the high-power testing that followed. With both channels driving 8-ohm loads at 1,000 Hz, the outputs clipped at 100 watts per channel for a clipping-headroom rating of 1 dB. A high current-output capability in an amplifier implies an ability to deliver an in-

creased power output as the load impedance is reduced, and the PM660 proved to be superb in that respect. Driving 4-ohm loads, the clipping output was 156 watts per channel, and into 2 ohms the output reached a remarkable 200 watts (this was not actually the clipping power, since the amplifier's internal line fuse blew at that point). When we used the tone-burst test signal of the dynamic-power measurement, the power outputs were predictably higher. Into 8 ohms, the short-term output was 111 watts (for a dynamic-headroom rating of 1.42 dB), and into 4 and 2 ohms the respective maximum power outputs were 200 and 336 watts per channel. The PM660's qualifications as a "fast" amplifier were confirmed by its rise time of 1.5 microseconds (rated 1.8) and slew factor of greater than 25. Its performance was unaffected when we drove a standard IHF reactive load, and with a complex reactive simulated speaker load a 10-kHz

(Continued on page 34)

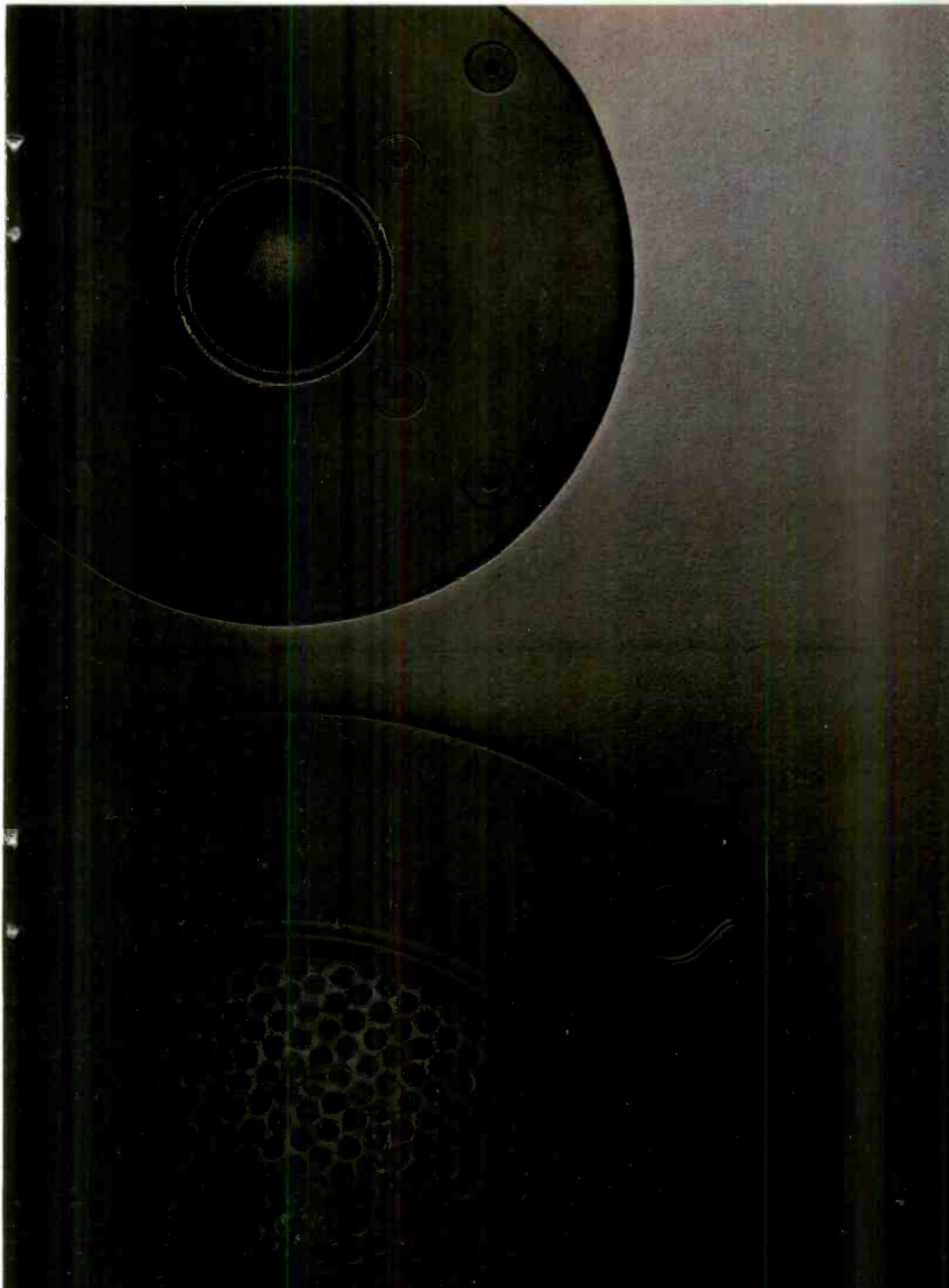
Harman Kardon PM660 Integrated Amplifier

● **Comment.** There is little we can say about the sound of the PM660 other than to confirm that it is as clean and quiet as any amplifier we know of. Whether its all-discrete circuitry or wide-band, anti-TIM design contributed in any audible way to the final sound we cannot say. However, we are not at all ambivalent about the "high-current capability" of the PM660 and what it does for the sound. Although the amplifier must be rated at 80 watts or so according to current FTC regulations, its dynamic-power output (or even medium-duration output) into loads of less than 8 ohms can match or surpass that of many amplifiers with much higher ratings. Our speaker tests have shown that it is the rule, rather than the exception, for a speaker's impedance to drop well below its nominal rated value at certain frequencies. If the amplifier cannot maintain its undistorted output into such a low impedance, it is not going to

do justice to the sound, regardless of its "official" power rating. This can be heard quite clearly when one "pushes" the PM660 to very high listening levels, especially when driving more than one pair of speakers. It is without doubt a very "muscular" 80-watt amplifier, and we were never able to force it into audible compression or any lack of "punch" or clarity.

Aside from its sound, the Harman Kardon PM660 is an impressively smooth and unobtrusive amplifier. For example, after the turn-on time delay, instead of abruptly connecting the speakers with the "click" of a relay, the 660 introduces the sound with a smooth transition from silence that takes no more than a fraction of a second, adding a sense of ease and precision to the total effect of using the amplifier. This is a small thing, to be sure, but there is much more to good product design than mere numerical specifications, and Harman Kardon has done itself proud with this amplifier by paying as much attention to the details as to the basics.

—Julian D. Hirsch



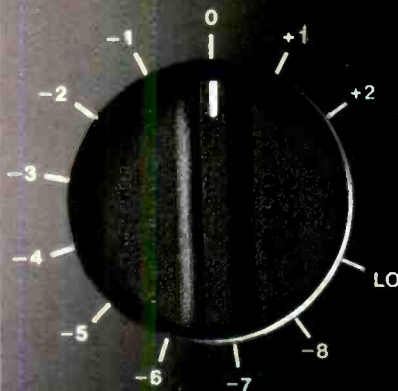
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CIRCLE NO. 19 ON READER SERVICE CARD

HIGH FREQUENCY LEVEL



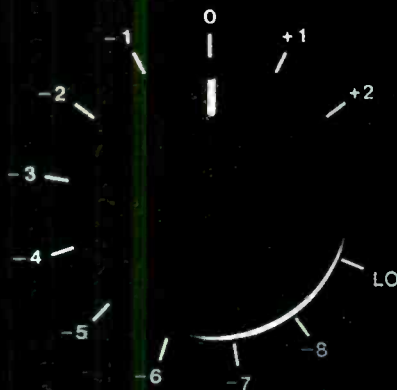
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SYSTEM C

POWR-COMP™

POWER OVERLOAD
COMPENSATION MONITOR
MAXIMUM POWER
125 WATTS

MID FREQUENCY LEVEL



MADE IN U.S.A.



square wave showed only a moderate amount of ringing at about 50 kHz.

The 1,000-Hz harmonic distortion, driving 8-ohm loads with both channels, was in the range of 0.007 per cent (at 80 watts) to a maximum of 0.016 per cent at 10 watts. With 4- and 2-ohm loads, the distortion curve was similar, with slightly higher readings. The highest distortion was in the range of 0.022 to 0.125 per cent when driving 2-ohm loads at power levels up to 180 watts.

The distortion of the PM660 varied only slightly over the audio-frequency range. Driving 8-ohm loads, the distortion ranged from about 0.007 per cent to 0.02 per cent for outputs from 8 to 80 watts and frequencies from 20 to 20,000 Hz. We also measured the high-frequency intermodulation (IM) distortion with input signals (at 18 and 19 kHz) whose combined peak amplitude was equal to that of an 80-watt sine wave. The measured second-order (difference-tone) product at 1,000 Hz was at our test-equipment residual of -96 dB, and the

third-order products at 17 and 20 kHz were at a -87-dB level. To check the contribution, if any, of the low-level stages to the total distortion, we measured distortion with and without the MAIN DIRECT switch engaged. We found no difference.

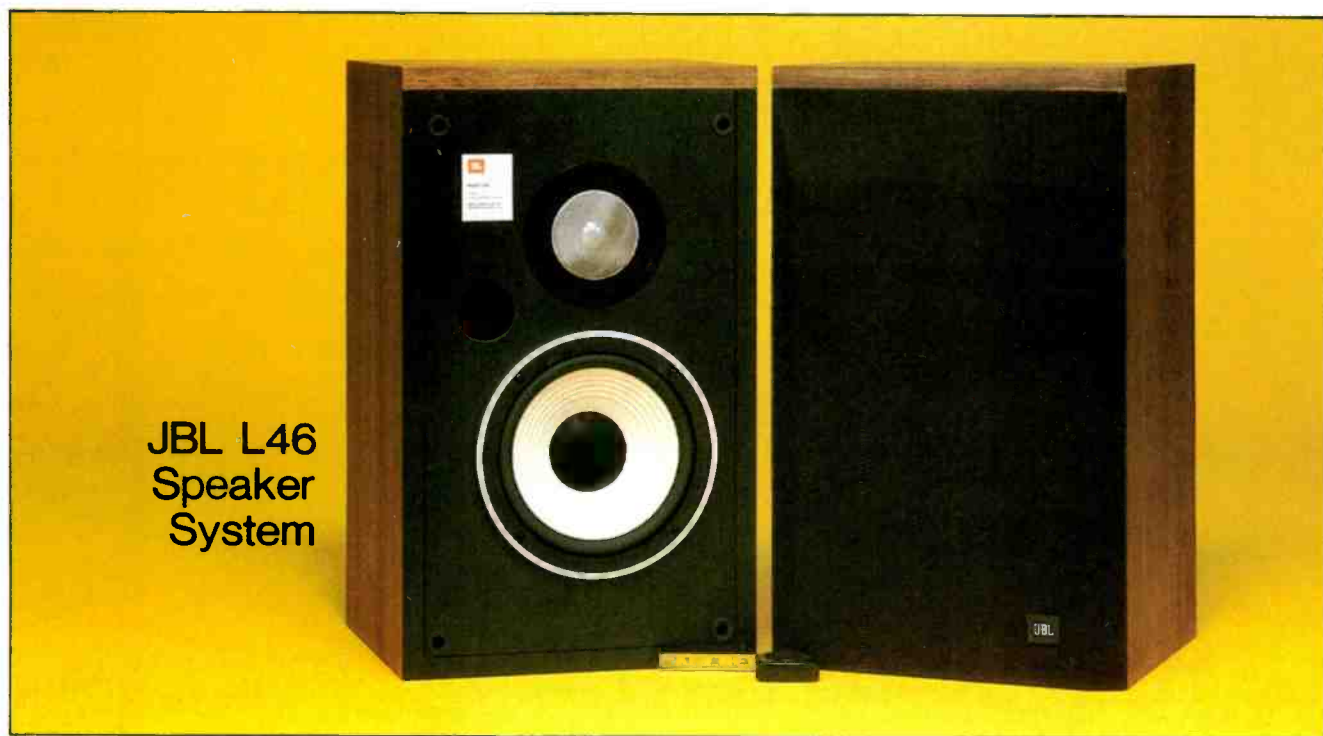
The amplifier sensitivity for a reference output of 1 watt was 14 millivolts (mV) at the high-level inputs and 0.25 mV at the phono (MM) input. Through the MC input, the sensitivity was 8 microvolts. The A-weighted signal-to-noise ratio was 77 to 78 dB for both high-level and phono (MM) inputs. It could not be measured for the MC input because of external hum pickup.

The MM phono input overloaded at a very high 265 mV at 1,000 Hz and at levels equivalent to 245 and 241 mV at 20 and 20,000 Hz, respectively. The MC input overload was 6.8 mV at 1,000 Hz. The MM input impedance was 44,000 ohms in parallel with a "normal" capacitance of 140 picofarads (pF) for PH2 and 180 pF for PH1. The front-panel switch added the indicated

amount of capacitance. The RIAA equalization was accurate within ± 0.5 dB from 20 to 20,000 Hz. It was affected only slightly by the inductance of a typical moving-magnet cartridge, which increased the output at 20,000 Hz by about 1 dB compared to the midrange level.

The tone controls had conventional properties, with the bass-turnover frequency shifting from about 50 Hz to about 400 Hz as the control was varied through its range, and the family of treble curves hinged at about 2,000 Hz. The treble control had very little effect through the first half of its rotation from the center. The loudness compensation boosted both low and high frequencies at reduced volume settings, but the amount of boost was quite moderate and the sound was never muddled by the circuit. The filters had desirable 12-dB-per-octave slopes with cutoff frequencies of about 25 and 3,500 Hz.

Circle 143 on reader service card



**JBL L46
Speaker
System**

- JBL L46 Speaker System
- Size: 20¾ x 12½ x 10½ inches
- Weight: 29 pounds
- Price: \$165

THE JBL L46 is a compact, two-way bookshelf speaker system whose newly designed components are said to provide performance typical of quality three-way systems. The L46 has an 8-inch woofer in a ported enclosure crossing over at 3 kHz to a 1-inch dome tweeter. The system impedance is 8 ohms, and it is designed for operation with amplifiers delivering between 10 and 100 watts per channel. The enclosure of the L46 is veneered in oiled walnut and has

a dark-brown grille cloth retained by plastic snaps.

The woofer of the L46 employs JBL's Symmetrical Field Geometry (SFG) magnetic structure. First used on higher-price JBL speakers, the SFG creates a symmetrical magnetic field in and around the voice-coil gap, greatly reducing second-harmonic distortion during normal operation. The woofer cone is of paper laminated with a plastic damping material, and it is supported by a rugged die-cast frame.

The tweeter's dome diaphragm is formed of a phenolic material and coated with aluminum by vapor deposition. In the crossover network, the large capacitors are all

shunted by smaller capacitors, a technique said to improve the waveform accuracy of the speaker system. Since the driver sensitivities have been closely matched, the manufacturer chose not to provide a user-adjustable tweeter control.

The enclosure of the L46, relatively compact even for a bookshelf speaker, has been designed for the deepest possible bass response consistent with the design constraints. It is constructed of ¾-inch-thick wood, it is heavily braced internally, and it is damped with fiberglass. Unlike most inexpensive systems, the L46 cabinet has a fine, hand-rubbed wood finish.

(Continued on page 36)

*"My personal advice is
to count on Smirnoff quality.*

*My financial advice is
to bank on its value."*



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to me for the quality of
my advice. To get the
best value out of every
penny they spend.*

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DR. ANDREW BRIMMER,
financial consultant.

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● **Laboratory Measurements.** The mid- and high-frequency room-response measurement of the JBL L46 speakers, when spliced to the close-miked bass response, yielded a composite response curve that varied only ± 4 dB from 25 to 19,000 Hz. Through most of the audible range, from 100 to 6,000 Hz, it was within ± 2.5 dB. The high-frequency response from the left and right speakers (measured, respectively, on axis and about 30 degrees off axis) diverged above about 5,000 Hz, indicating the directivity of the high-frequency output from the 1-inch tweeter. Our measured result is not atypical for a dome radiator of this size.

The woofer response was measured with the microphone close to the cone and again at the opening of the port. Combining the two curves, with a correction for the relative areas of the cone and port, produced a surprisingly extended response curve. Above 70 Hz it sloped slightly downward (by about 4 dB at 500 to 1,000 Hz) but was almost totally free of minor irregularities. The effective acoustic crossover to the port radiation was at about 52 Hz; response below that frequency fell at a rate of 6 dB per octave, so the output at 20 Hz was only about 4 dB less than at the midrange level.

The woofer cone's output distortion at a 1-watt drive level was about 1 per cent from 100 Hz down to 50 or 60 Hz, increasing slowly at lower frequencies. Since at those frequencies the cone contributed only a small part of the total bass output of the speaker, we used the distortion readings at the port for frequencies below about 60 Hz, making a smooth transition between the two as we plotted the curve of distortion vs. frequency. The port distortion was considerably higher than the values we read at the cone, so the composite bass distortion

JBL L46 Speaker System

● **Comment.** The measurement data implied that the JBL L46 was a very good loudspeaker, and that is what it proved to be in our listening tests. Its sound was notably smooth and unboomy, with a more natural-sounding lower midrange and upper bass than we hear from most speakers in our listening room. The extreme high end was slightly prominent, and the low-bass output belied the small size of the speaker's woofer. It could be almost palpable, yet without a trace of over-emphasis. To our ears, the measured bass response was validated by the actual listening situation (which, for some reason, does not always happen).

As we listened to the L46 speakers for some time, both by themselves and in comparison with some others, we found ourselves enjoying their sound without thinking of them as loudspeakers. As we have said before, the true mark of a good speaker (or of any other component, for that matter) is that it can be ignored as a piece of hardware and appreciated simply for the sound it produces. The L46, despite its small size and price, is a full-size speaker in its sound. It is so smooth and balanced sounding that we cannot imagine its being less than pleasing in virtually any environment. JBL can justifiably be proud of the L46, and audiophiles who have wished to own JBL speakers but found them too expensive can now indulge themselves without financial strain.

—Julian D. Hirsch

reached 10 per cent at 40 Hz. When the drive was increased to 10 watts, the shape of the curve was similar, with readings in the range of 2 per cent down to 70 Hz and climbing to 10 per cent at 60 Hz and 15 per cent at 50 Hz.

The system impedance was at least 6 ohms over the full audio range except between 3 and 4 kHz, where it fell to 4 ohms. The speaker's sound output at 1 meter with an input of 2.83 volts (1-watt nominal) of pink noise in an octave band centered at 1,000 Hz was 89.5 dB, typical of small ported systems and 1.5 dB higher than the speaker's rating.

Using our FFT computer-analysis program, we measured the anechoic frequency response of the L46 at a number of angles to

its forward axis at a distance of 1 meter. The measurement covered a range of 180 to about 15,000 Hz (the limits of the analyzer range). On the speaker axis the output was flat within about ± 3 dB over the full range, which is an excellent frequency response. At 45 degrees off axis the response was still very smooth, but at frequencies above 5 kHz or so the output was down about 6 dB from the axial response level. At a 60-degree angle the frequency-response curve was more irregular, dropping to a broad minimum between 9 and 10 kHz and rising to a maximum at 14 to 15 kHz (where it was actually greater than the axial response at that frequency).

Circle 144 on reader service card

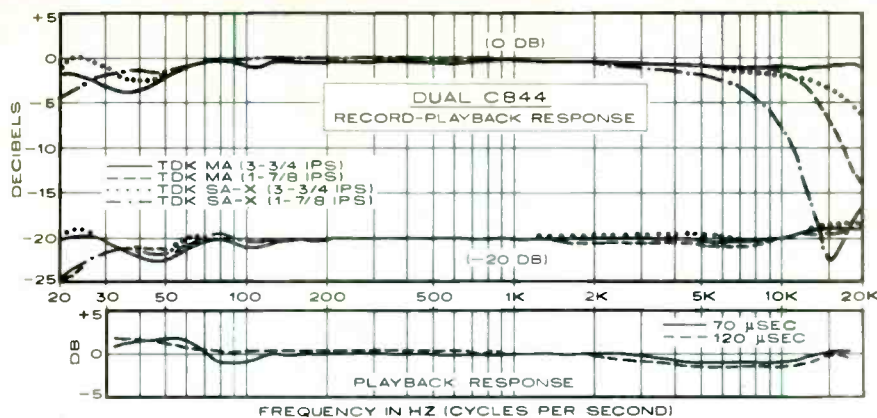


Dual C844 Cassette Deck

- Dual C844 Cassette Deck
- Size: 17 1/4 x 13 3/4 x 4 1/2 inches
- Weight: 21 pounds
- Price: \$700

THE Dual Model C844 is a two-speed, three-head cassette deck that incorporates both the normal Dolby-B and the newer, more effective Dolby-C noise-reduction

systems. Its solenoid-operated transport uses a dual-capstan drive to minimize wow and flutter, and its six bias/equalization switch positions accommodate virtually any



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

cassette tape without requiring the user to make special or individual bias-optimizing adjustments.

Loading cassettes is faster on the C844 than on most decks, for it dispenses with the usual cassette-well door with rear-mounted slides. Instead, you simply press the cassette against hubs coming out of the front panel, tape opening downward. You can also remove the cassette during play simply by reaching out and grasping it by its sides. A photoelectric sensor retracts the drive mechanism the instant your fingers touch the sides of the cassette. To protect the sendust heads from dust or possible scratching, a rounded cover automatically slides into place when the power switch is turned off. (The cover may be overridden manually for routine cleaning and demagnetizing operations.) The illuminated window lets you see how much tape is left on a side.

A four-digit electronic display is used for the tape counter, and the VU-type recording-level meters are supplemented by four peak-indicating LEDs. LEDs also signal the STOP, PLAY, RECORD, REPEAT, and DOUBLE SPEED functions. Microphone and line-level inputs may be mixed, though the playback output level is not adjustable. Memory rewind/play and timer activation are provided, as are an MPX switch (to eliminate possible problems when dubbing FM stereocasts) and an AUTOSPACE button (to insert short silent spaces between selections). A MUSIC FINDER button works in conjunction with the fast-forward and rewind modes to skip to the beginning of the next selection or to return to the beginning of the one being played. As with a number of other Dual cassette decks, a FADE EDIT feature is provided that will partially erase already recorded material so that the entrance and exit from the selection will sound much as it does when a professional broadcaster "fades in" and "fades out." The rear panel of the Dual C844 contains the usual line-level input/output jacks, plus DIN connectors for European systems and an additional phono jack for a remote-control accessory.

● **Laboratory Measurements.** The playback frequency response of the C844 was

measured with the new BASF IEC Standard ferric and CrO₂ calibrated tapes, as these have the widest test range (31.5 Hz to 18 kHz) currently available. At 17/8 ips, as shown in the accompanying graph, all tones were well within ±2 dB. Playback response could not be checked for the 33/4-ips speed since there are no calibrated tapes available for that purpose.

Dual C844 Cassette Deck

● **Comment.** Playback of top-quality In Sync (Connoisseur Society) and Mobile Fidelity prerecorded cassettes was excellent, and dubbing discs and FM broadcasts was a joy. Even so demanding a test as record-playback comparison of FM interstation hiss showed almost no high-end loss up to near 0-dB levels when using metal tape at the 33/4-ips speed. This latter is, of course, a rather expensive way to record on cassettes and could only be justified by the most demanding material, but it shows what the deck can do.

Interestingly, the 33/4-ips speed seemed to make a somewhat greater difference than did a shift from CrO₂ to metal-particle tape, so if the shorter running time per side is acceptable, at current metal-tape prices the double-speed operation with CrO₂-type tape might make economic as well as sonic sense. In any event, the solid construction and excellent sonic performance of the Dual C844 well justify its price. —Craig Stark

Because of its multiple bias/equalization switch positions, tape selection was not critical, though best results were obtained with Maxell XLI-S (ferric), TDK SA-X (CrO₂-equivalent), BASF Professional III (ferrichrome), and TDK MA (metal). Almost

comparable results were obtained with Loran High Bias. The record-playback curves shown are for the two TDK tapes at each of the two speeds; these gave the flattest response when driven with high-level (0-dB) high frequencies. Using metal tape at the 33/4-ips speed produced a frequency response at this level comparable to what one would expect of an open-reel mastering recorder at 15 ips. At the customary -20-dB level normally used for cassette-deck frequency-response measurements, the differences between the tapes were negligible out to the 20-kHz limit of the GenRad plotter, with only minor (and inaudible) wavelength-dependent effects in the extreme low-frequency region.

Though the meters on the C844 are not marked with the traditional "double D" Dolby symbol, the Dolby level corresponded to 0 dB when checked with a test tape. Third-harmonic distortion at this level, using a 315-Hz tone at the higher and lower speeds, respectively, was 0.58 and 0.68 per cent for TDK MA, 0.8 and 0.86 per cent for TDK SA-X, 0.3 per cent (both speeds) for Maxell XLI-S, and 0.35 and 0.58 per cent for BASF Professional III—very good in every case. To reach the 3 per cent distortion point required increasing the recording level by a little over 6 dB at the 33/4-ips speed and by more than 5 dB at 17/8 ips.

Signal-to-noise ratios, referenced to the customary 3 per cent third-harmonic distortion point and without weighting or noise reduction, measured 58.6 and 55.7 dB for TDK MA at the higher and lower speeds. The comparable numbers for TDK SA-X were 57.8 and 54.5 dB; for Maxell XLI-S, 58 and 53.8 dB; and for BASF Professional III, 60.7 and 56.3 dB. Using IEC A-weighting and Dolby-B increased the S/N to (listing the higher speed first) 70 and 68 dB (TDK MA), 69.2 and 67.1 dB (TDK SA-X), 69.8 and 65.8 dB (Maxell XLI-S), and 71.8 and 69.7 dB (BASF Professional III). Finally, using Dolby-C and CCIR weighting, the respective signal-to-noise ratios were: 83.8 and 82 dB (TDK MA), 76.4 and 75.5 dB (TDK SA-X), 81.2 and 79 dB (Maxell XLI-S), and 81.2 and 79.5 dB (BASF Professional III). These are really quite extraordinary numbers for an analog cassette deck, for with Dolby-C, CCIR weighting, and metal tape they rival the specifications of a digital recorder!

Dolby tracking error, using either the B or the C system, was extremely small—less than ±1 dB up to 20 kHz at both -20- and -30-dB levels—and there were no audible "breathing" or "pumping" side effects to mar the performance. Wow-and-flutter, measured with a Teac MTT-111 test tape, registered a very creditable 0.044 per cent (wrms) and 0.08 per cent (DIN peak-weighted). The line-level input sensitivity was 0.8 volt at 1,000 Hz, producing an output of 0.3 volt. A 0.5-millivolt (mV) input was sufficient to produce a 0-dB level, and overload of the microphone circuits did not occur until 160 mV. The VU-type recording-level meters over-registered by 2 dB when using 0.5-second pulsed tones and under-registered by 4 dB with the standard 0.3-second, 1-kHz pulses.

Circle 145 on reader service card

A man in a blue shirt, blue jeans, and a red life vest is sitting on the edge of a boat. He is pointing his right hand towards a large bridge under construction on the water. The bridge has several tall concrete pillars and steel beams. In the background, there are cranes and other construction equipment. The sky is clear and blue. The water is dark blue with some ripples. The overall scene is a construction site on a body of water.

W

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Going on Record

By James Goodfriend



ADVICE TO THE LOVELORN

LETTERS of frustration from would-be stars of the musical firmament (all circles included) are fairly regular in arriving at this office. All of them, even the most intelligent, seem founded on a basic confusion which underlies the rest of the thought. Answering one such letter recently has made me work to clarify for myself the nature of that confusion, a confusion between music as an art and music as a business.

Despite what record-company promotion says, an "artist" is not someone, anyone, who has made a record. An artist is a person who creates art. He does so first because he is capable of it (few people are), and second because he cannot exist without creating it. Call it a form of excretion if you will. If an artist is in some way prevented from creating art, he invariably goes to pieces. His primary interest in creating art is not to get himself discovered and hailed as a genius, but to get the damned stuff out of his system, so he can relax until the next surge begins. You can see this in painters, in writers, in composers, and in performing artists as well. The artist has to create in as perfect a form as he can because otherwise his art will continue to bother him. But his drive is to get it out; what is done with it afterwards is largely irrelevant.

But artists are, to varying degrees, people, and people have physical and psychological needs. The artist looks for someone to buy his art so that he can buy what he needs to live. Some artists live well; some don't. Some artists are coincidentally good businessmen; some aren't. An artist may also look for someone to appreciate his art to satisfy a personal need for approval and praise. But he is just about always aware of the relative quality of his art; very rarely do artists not understand how good they are, especially in relation to other artists. It is the *person* in him that may need praise and understanding; as an artist he usually knows just where he ranks on the scale and does not have to be told. Whether he is successful in a worldly way or not may make a big difference to him as a person but very little difference to him as an artist. He will continue to create art, not because he is successful, but because he has to. Artists have no other choice.

Music as a business is a very different thing. It is an industry engendered by both artists and people with a certain flair or talent. In the business of music the quality of the work is not at all the central point. The central point is whether enough people will like it (whatever "it" is) enough to pay money for it. That is why it is called a business. So what is important here is not the *artist's* recognition of the quality of his art, but what *other* people think of it. There are a lot of "other" people. At the end of the line are the consumers. They have to like it and like it enough to pay for it. Between the creator of the music and the consumers are all those middlemen. They do not have to like it, but they have to be convinced that consumers will. Their lives depend upon how good their instincts are. Now, these middlemen are also, to varying degrees, people, and as people they realize that man does not live by bread alone. Therefore they may exercise some personal taste in what they will work with and what they will not. But, ultimately, if the buying public does not see things their way, they are out of a job or out of business.

BOTH artists and consumers ought to keep this distinction in mind, for it explains some seemingly inexplicable injustices (real and imagined). The business *owes* nothing to the artist, not even a hearing. It exists quite independently of art, and there is always someone around able and willing to feed it the necessary musical material. The musician as businessman, be he artist or not, has to sell himself. If he does so successfully, to the middlemen and ultimately to the consumers, if he turns out to be a rousing commercial success, the business will benefit from him. Other musicians will copy him. Lots of people will find a way to make money or ego gratification out of him. And he will get his share too. But being an artist has nothing to do with it. Creating art has nothing to do with it. Art and non-art alike are packaged and offered, every package competing with every other one, and only a few, sometimes for inexplicable reasons, are chosen. But the choosing's the thing. In the music business, you're nobody till somebody loves you. □

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- Cartridge tracking ability.
- Channel balance.
- Hum and noise, including turntable rumble.
- Wow and flutter.
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Included with SRT14-A is a detailed instruction manual, complete with charts, tables, and diagrams. This takes you step by step through the testing process. It explains the significance of each test. It tells you what to listen for. It clearly describes any aberrations in system response. And it details corrective procedures.

For professionals too

The usefulness of the SRT14-A is not confined to the nontechnical listener. Included on the record are a series of tests that call for the use of sophisticated measuring instruments, such as oscilloscopes, chart recorders, and distortion analyzers. These tests permit the advanced audiophile and professional to make precise measurements of transient response, recorded signal velocity, anti-skating compensation, IM distortion, and a host of other performance characteristics.

SRT14-A record contents

CARTRIDGE TRACKING, HIGH FREQUENCY. Consists of a two-tone signal (16,000 and 16,300 Hz) that repeatedly swoops to a high level and returns to a fixed low level. The level and quality of the audible 300-Hz "difference tone" indicates pickup quality and mistracking.

FREQUENCY RESPONSE, 20 kHz to 25 Hz. Uses one-third octave bands of pink noise, centered on twenty-nine frequencies over the audio spectrum, compared with reference tones at three levels.

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.

SEPARATION, RIGHT-TO-LEFT. Same as Test 3, with channels reversed.

CARTRIDGE TRACKING, LOW FREQUENCY. Uses a single 300-Hz tone that repeatedly swoops to a high level, producing buzzy tones if the cartridge is misadjusted or inferior.

CHANNEL BALANCE. Two random-phase noise signals, one in each channel, produce sounds heard separately to allow accurate setting of channel balance.

CARTRIDGE AND SPEAKER PHASING. A low-frequency signal alternates in and out of phase in the two channels to allow proper phasing of cartridge and speakers.

LOW-FREQUENCY NOISE. A very-low-level orchestral passage, followed by a section of "quiet groove," allows analysis of low-frequency noise.

TURNTABLE FLUTTER. A passage of piano music is recorded three times with increasing amounts of flutter. The degree to which the record player's flutter "masks" the test passages indicates the severity of turntable flutter.

FREQUENCY-RESPONSE SWEEP, 500 Hz, TO 20,000 Hz, LEFT CHANNEL. A steady tone rises from 500 Hz to 20 kHz, allowing evaluation of system electrical response by instrument.

FREQUENCY-RESPONSE SWEEP, 500 Hz TO 20,000 Hz, RIGHT CHANNEL. Same as Test 10, but in right channel.

-tone-burst. The test signal is sixteen cycles on, same period off, sweeping from 500 Hz to 20 kHz, allowing evaluation of transient response of phono cartridges.

INTERMODULATION DISTORTION. A phono cartridge's intermodulation distortion can be measured directly using a standard IM meter designed to analyze an SMPTE signal.

ANTI-SKATING ADJUSTMENT. A specially designed signal allows adjustment of anti-skating force for best reproduction of high-level passages.

1000-Hz REFERENCE TONES. Four tones with recorded velocities that increase by 3-dB steps can be used to determine (by the comparison method) the recorded signal velocity on a disc recording.

FLUTTER AND SPEED ACCURACY. A 3.150-Hz tone recorded with great accuracy of speed provides the standard signal for use with a flutter meter or frequency counter.

STEREO SPREAD. A series of drum beats recorded out of doors provides a guide to optimum speaker placement for a subjectively satisfying stereo effect.

STANDARD "A." The standard 440-Hz tone is recorded with very high precision for tuning instruments and for checking turntable speed.

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.

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Listening tests on FIFTEEN HEADPHONES

By David Ranada

SOME are born to headphones (or learn to love them), and some have headphones thrust upon them. Into the latter category are pushed those cursed with acoustically hypersensitive roommates, neighbors, or landlords, as well as those who wish (for whatever reason) to play music at ear-splitting levels at all hours of the day and night. Into the former category fall those audiophiles who want to hear every detail in a recording, down to each passing splice and turn of a mixer knob, free of masking or distracting room noises. Also in this category are those music lovers who want to experience the full dynamic range of today's super-disc recordings and tomorrow's pure-digital playback systems without buying an expensive higher-power amplifier, and others who want the lightweight, convenient, and portable source of high-fidelity

sound that headphones can supply. It has probably occurred to all these headphone users, at one time or another, to ask a basic question: What makes a good headphone? Nobody knows. Despite their freedom from room-acoustics interactions, impedance-matching difficulties, multiple-driver directionality problems, and crossover-design debates, headphones are in many ways even more difficult to evaluate than speakers. Nevertheless, we have tried, and the report that follows will, while explaining some of the vagaries of headphone evaluation both objective and subjective, give some buying guidance—not only specific buying tips, but also the opinions of a select ten-member listening panel on the sound quality and wearing comfort of fifteen mid-price dynamic headphones (see Table 1 for brands, models, and specs). —D.R.

Testing Headphones

Measuring a headphone is easier than measuring a loudspeaker. One just mounts the headphone on a microphone coupler, attaches a signal generator, and reads out the frequency response on a meter or chart recorder. But this simple recipe for obtaining a headphone's frequency response gives rise to at least three important associated problems:

1. Headphone couplers are typically flat pieces of metal machined to look vaguely like a human ear. They have a hole in the middle to hold a calibrated measurement microphone. But a headphone's measured frequency response on such a coupler will probably not be the same as its response on a human ear, especially at high frequencies. For one thing, people's ears differ greatly in their response to headphones: deviations between individuals can amount to several decibels at higher frequencies. And even on the same subject, the left ear will probably

The headphones, left to right: Fostex T20, Sony MDR-80T, Mura Red Set VII, Koss HV/X, Stenton Model XXI, Pioneer SE-L15 (rear), Realistic Pro-60, AKG K240, Audio-Technica ATH-0.6 (top), B&O U70, Sennheiser HD 420, Beyer DT 550, Denon AH-9, and Yamaha YH-100 (Brand X not shown).

Photo by Bruce Pendleton



not match the right ear any closer than 0.5 dB. These difficulties call into question the value of most headphone frequency-response specs and measurements.

2. Assume you have obtained a frequency-response plot of a headphone made on some kind of coupler. Should the response be flat, should it be flat if you subtract the coupler's own resonances, or should the response match that of a flat-response speaker played in front of an average listener? And if the speaker to be matched is played in front of the listener, at what angle should it be (since perceived frequency response depends on the exact angle—horizontal and vertical—at which the sound encounters the ears)? Should the headphone response match the levels generated in the human auditory canal by a diffuse field of pink noise? All these questions point to valid ways of evaluating a headphone's frequency response, *and they are all different*. Most of these methods, or combinations of them, have been used in the process of headphone design by manufacturers. No wonder headphones all sound different!

3. Coupler-derived measurements can tell the prospective buyer nothing about how a headphone fits—whether it interferes with his glasses, falls off with the slightest movement of his head, or is uncomfortable enough to qualify as a torture device. Furthermore, coupler measurements, repeatable, standardized, and controlled though they may be, say nothing about how sound quality varies with slight variations in headphone positioning on the ear.

Don't make the mistake of thinking that most of these problems don't exist in the testing of loudspeakers as well. They are there, though in slightly changed form. Headphone testing just

brings these problems closer to home, so to speak. As in the testing of *any* audio component, a headphone test must deal with the human ear, the human head, and what's inside it.

Fair Plays

For this headphone project, the problems of objective testing listed above were sidestepped by taking the subjective route: a listening test. Subjective tests have their pitfalls too, a good many of which we were able to avoid; others proved unavoidable because of limited time, money, and the nature of headphones.

The primary requirement in any listening test is that it be conducted with "psychoacoustical fairness." Ideally this means that the test is double-blind (neither the listener nor the test administrator knows which headphone is being played), the levels between comparisons are matched (so that the louder headphone does not automatically get the superior score), and the switching between headphones is carried out instantaneously (to compensate for the ears' limited auditory memory by calling attention to any differences as quickly as possible).

It is virtually impossible to conduct a double-blind listening test of headphones, a test that would be completely protected from listener and tester preconceptions and biases. For one thing, only the listener can adjust the headphones properly and comfortably on his

ears. Indeed, from feeling the headphones alone, some of our more experienced listeners could determine the brand and even the model numbers of some of the headphones. In order to reduce listener awareness of the headphone brands, we covered all identifying marks (logos, name plates, etc.) with opaque black tape, taking particular care, of course, not to obscure any of the small holes often found around the earpiece of a headphone. These usually serve a vital function in determining the proper response of the headphone while it is on the ear. After all identifying marks were covered, including those on the headphone cords and plugs, the headphones were given numbers by which they were referred to thereafter.

Level matching was achieved to within 1 dB (C-weighted) by using a custom-made headphone-level matching adaptor. This box, which could connect up to twenty headphones, was designed to be connected to the *speaker* outputs of an amplifier or receiver, and it contained adjustable resistors for matching levels in addition to fixed resistors. The fixed resistors simulated the electrical characteristics of the headphone outputs of typical amplifiers and receivers. (The electrical design of the level-matching box, by the way, made the testing of electret or electrostatic headphones impossible.)

In the level-matching process, the headphones were plugged into the jacks labeled with the headphone number, and the corresponding potentiometers



HEADPHONES...

"lightweight headphones are not necessarily more comfortable. . . ."

were adjusted so that the headphone developed an 80-dB sound-pressure level (C-weighted) in a coupler when driven by a standardized level of pink noise. Short of computer-controlled adjustment of levels while the headphone is sitting on the listener's ears, this is the best that can normally be done to match headphone levels. It certainly exceeds the care usually taken with matching levels in hi-fi showrooms. Unmatched, the headphones in this test could have had up to a 20-dB disparity in apparent levels.

[Instantaneously switched headphone comparisons *are* possible with a binaural "dummy head" microphone, a high-quality recording system, and a headphone of known high quality. With a suitable arrangement of these components, not only can comparison tests be made but also "absolute" live-vs.-recorded tests as well. The difficulty with this approach is primarily a logistical one: precision dummy heads are very expensive and hard to come by. Usually they are not certified for reliable performance in the highest octave (10 to 20 kHz) because they were originally designed for hearing-aid and other acoustical research in which the highest frequencies are unimportant. Even if the headphone under test came close to duplicating the performance of the reference headphone playing into a dummy head, such a result would tell us nothing about how the headphone sounded on human heads and ears and how it interacted with various recording techniques.]

In order to make this headphone test more relevant, we took the same approach used in the \$100-speaker tests reported on in the August 1981 issue and simulated the typical hi-fi showroom situation with experienced listeners. There was no instantaneous comparison, the listeners putting the headphones on themselves and taking as long as they needed to adjust them for proper fit and sound.

Fairer Plays

In order to compensate somewhat for the uncontrolled nature of non-instantaneous switching, it was decided to make this a questionnaire-based listening test. The listeners were to listen to the headphones and to score them numerically (from 0 to 10) according to their own conceptions of how a headphone should sound. Twelve of the twenty-three questionnaire items concerned sound quality; the rest were about comfort, fit, and appearance.

A further effort to reduce listener variables involved the standardization of program material. The first seven tests concerning sound quality were related to seven recorded test selections on a specially prepared test cassette (see accompanying "Test Tape" box on page 48). The cassette, headphones, matching box, and blank questionnaires were circulated among the listening panel.

Each listener's questionnaire contained a *different*, computer-generated sequence of which headphones to listen to. This order of listening was chosen to minimize the effects of any possible consistent ordering. For example, if very bad headphone A were *always* followed by mediocre headphone B, the latter might receive an unjustifiably high average rating. The randomly scrambled listening order also tended to reduce the generally unreliable nature of the first couple of ratings, always a problem while listeners are getting their sonic bearings.

One headphone (Brand X on the charts) with known bad response was included in the test (don't worry—it wasn't from a manufacturer with even a minor reputation). Any listener who rated Brand X highly would be immediately disqualified since by rating this lemon well he would invalidate any claim he might have to being golden eared. As it happened, this drastic corrective measure was not needed, as the ratings for Brand X show.

Interpreting Results

Listed alphabetically in Table 2 on pages 46-47 are the headphones, the individual tests, the average score each headphone received on each test, and selected comments from our ten-member listening panel. The scores are out of a possible 10 *with some exceptions* (see the accompanying comments headlined "Notes on Individual Headphone Tests"). Also listed with each score is a number preceded by a plus-or-minus sign (\pm). This is the statistical spread of each score around the average (technically, \pm one standard deviation). The spread does *not* represent the highest or lowest scores given in each test. Instead, it shows the *region* into which scores are most likely to fall if more testing were done. The wider the spread (the higher the number following the \pm sign), the less firm is the average score.

Figures 1 and 2 below graphically depict the results for Test 12 (Overall Sound Quality) and Test 23 (Overall Comfort), respectively. The vertical line beneath each headphone name intersects the horizontal "score" axis at the score given in Table 2. Directly beneath each headphone name is a horizontal bar depicting the spread of the score around the average. Several headphones received the same average scores in Tests 12 and 23; they are listed in order of smaller spread.

Among the many generalizations to be drawn from this mass of data (*after*

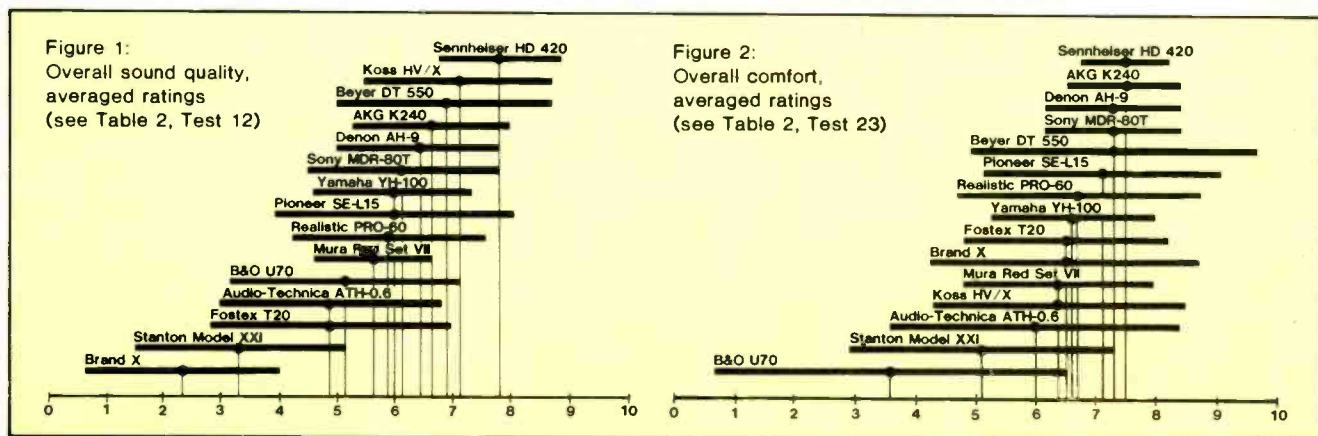


TABLE 1: HEADPHONE CHARACTERISTICS AND SPECIFICATIONS

Manufacturer (listed alphabetically)	Model	Price	On or around the ear?	Weight (ounces)	Headbands Coiled or straight cord?	Cord length (inches)	Color: cushions, headband, trim	Measured impedance at 1 kHz (ohms)	Output in C-weighted dB sound-pressure level with 0.25-volt pink-noise input	Comments
AKG Acoustics 77 Selleck St. Stamford, Conn. 06902	K 240	\$95	Around	9 ¹ / ₄	2 Straight	116	Black Black Silver	664	78	Phase inverting
Audio-Technica 1221 Commerce Dr. Stow, Ohio 44224	ATH-0.6	\$90	On	1 ³ / ₄	1 Straight	94	Blue Blue Silver	37.4	88	Mini phone plug on cord
Bang & Olufsen 515 Busse Rd. Elk Grove Village, Ill. 60007	U70	\$100	On	11	2 Straight	112	Black Black Silver	153	71	Extensive positioning adjustments on earpieces. Phase inverting
Beyer Dynamic Inc. 5-05 Burns Ave. Hicksville, N.Y. 11801	DT 550	\$83	Around	6 ¹ / ₄	2 Coiled	34 min.	Black Black Gold	611	83	—
Brand X Name withheld	Brand X	\$20	On	2 ¹ / ₂	1 Straight	64	Light blue Dark blue Silver	32	84	—
Denon America, Inc. 27 Law Drive Fairfield, N.J. 07006	AH-9	\$80	On	3 ¹ / ₂	2 Straight	126	Black Silver Black	653	83	—
Fostex 620 King Edward St. Winnipeg, Manitoba Canada R3H 0P2	T20	\$79	On	10 ¹ / ₄	1 Straight	110	Black Black Silver	49	79	Phase inverting
Koss Corp. 4129 N. Port Washington Ave. Milwaukee, Wis. 53212	HV X	\$60	Around	8	2 Coiled	38 min.	Brown Brown Gold	98	80	Superficially resembles Realistic PRO-60 below
Mura Corp. 177 Cantiague Rock Rd. Westbury, N.Y. 11590	Red Set VII	\$35	On	2	1 Straight	151	Red Black Silver	32	85	Comes with mini phone- to-phone adaptor cord
Pioneer 1925 E. Dominguez St. Long Beach, Calif. 90810	SE-L15	\$110	On	2 ¹ / ₂	1 Straight	113	Black Silver Silver	49	86	Detachable cord
Radio Shack (Realistic) 1300 One Tandy Center Fort Worth, Tex. 76102	PRO-60	\$55	Around	8	2 Coiled	42 min.	Black Black Silver	102	80	Superficially resembles Koss HV/X above
Sennheiser 10 W. 37th St. New York, N.Y. 10018	HD 420	\$89	On	4 ¹ / ₄	2 Straight	96	Gold Black Gold	577	78	—
Sony Corp. 9 W. 57th St. New York, N.Y. 10019	MDR-80T	\$85	On	2 ¹ / ₄	1 Straight	120	Brown Black Silver	41	89	Comes with mini phone- to-phone adaptor plug
Stanton Magnetics, Inc. Terminal Drive Plainview, N.Y. 11803	Model XXI	\$70	On	5	1 Straight	116	Blue Blue Silver	109	86	Headband covered with blue denim
Yamaha Electronics Corp. P.O. Box 6660 Buena Park, Calif. 90622	YH-100	\$95	On	11 ³ / ₄	2 Straight	64	Black Black Black	282	79	—

reading the "Notes" in Table 2), several stand out clearly:

- Lightweight headphones are not necessarily more comfortable than heavier ones (contrast the headphone weights in Table 1 with the results of Tests 13 and 23).
- Lightweight headphones do not generally have adequate deep bass (Test 2).
- On the average, most of the head-

phones tested here did not have overemphasized deep-bass responses (most of the scores for Test 2 were below 5).

- Out-of-the-head imaging varies widely with the individual listener as well as with the headphone (note the wide spreads in Test 11).
- Most of the headphones tested were not designed to attenuate outside sounds (generally low scores for Test 19).

Using the Results

Before you start using the test results to shop for a headphone, decide exactly what you are looking for in a headphone. For example, if the headphone will be used in sedentary applications, if you'll just be lounging around your living room with the headphone on, the

TABLE 2: AVERAGED SOUND/COMFORT TEST RESULTS

HEADPHONE (listed alphabetically)	SOUND QUALITY: AVERAGED RESULTS											
	TEST	1. Wideband pink noise	2. Deep bass, organ, best = 5	3. Midrange I: female voice	4. Midrange II: female voice	5. Wideband: orchestra	6. Lower midrange: male voice	7. Wideband: rock band	8. Lack of distortion	9. Audibility of noise, best = 5	10. Sound changes with position?	11. Out-of-head imaging
AKG K240	6.6 ± 1.4	5.0 ± 1.5	6.6 ± 1.3	7.0 ± 1.3	6.2 ± 2.1	6.6 ± 1.8	6.1 ± 1.2	7.1 ± 1.9	4.7 ± 1.9	8.2 ± 1.3	6.4 ± 3.0	6.6 ± 1.4
Audio Technica ATH-0.6	4.1 ± 1.6	3.3 ± 1.0	5.0 ± 1.7	5.5 ± 1.8	5.0 ± 2.0	5.7 ± 1.8	5.2 ± 1.9	7.0 ± 1.6	6.2 ± 1.5	4.2 ± 1.8	4.7 ± 2.6	4.9 ± 1.9
B&O U70	4.9 ± 1.8	4.9 ± 1.5	5.0 ± 1.9	5.6 ± 1.9	5.7 ± 1.6	6.1 ± 1.7	5.7 ± 1.5	7.2 ± 1.9	6.0 ± 2.1	5.9 ± 2.0	4.9 ± 2.0	5.1 ± 2.0
Beyer DT 550	6.6 ± 1.7	4.4 ± 0.7	5.8 ± 1.9	6.7 ± 1.8	6.6 ± 1.4	7.4 ± 1.2	7.7 ± 1.4	7.8 ± 1.1	8.7 ± 1.1	7.4 ± 1.8	6.4 ± 2.8	6.9 ± 1.9
Brand X	2.8 ± 1.7	1.6 ± 1.0	2.5 ± 1.7	3.8 ± 1.5	2.7 ± 1.9	4.1 ± 2.4	3.0 ± 1.8	5.8 ± 2.2	6.6 ± 2.9	4.0 ± 2.7	2.7 ± 2.1	2.3 ± 1.7
Denon AH-9	6.1 ± 1.9	3.2 ± 1.0	5.8 ± 2.0	6.6 ± 1.8	6.3 ± 1.4	6.4 ± 1.3	5.5 ± 1.6	6.4 ± 1.6	5.5 ± 1.6	6.5 ± 1.4	5.4 ± 2.8	6.4 ± 1.4
Fostex T20	5.9 ± 1.5	4.2 ± 1.4	4.8 ± 1.8	5.9 ± 1.7	5.3 ± 2.0	6.2 ± 1.4	6.4 ± 1.3	7.5 ± 1.6	5.8 ± 1.8	7.1 ± 2.0	5.1 ± 2.7	4.9 ± 2.1
Koss HV/X	6.6 ± 1.3	5.2 ± 1.5	6.1 ± 1.8	7.1 ± 1.1	6.5 ± 1.8	7.2 ± 1.4	7.1 ± 1.7	8.2 ± 0.9	5.0 ± 1.7	7.5 ± 1.6	5.8 ± 3.0	7.1 ± 1.7
Mura Red Set VII	5.8 ± 1.0	3.0 ± 0.7	5.2 ± 1.8	6.1 ± 1.7	6.0 ± 1.3	6.0 ± 1.1	6.2 ± 1.7	6.9 ± 1.5	5.3 ± 1.6	5.6 ± 1.4	5.1 ± 2.4	5.6 ± 1.0
Pioneer SE-L15	4.4 ± 1.7	4.0 ± 1.3	4.7 ± 2.2	5.2 ± 2.2	4.9 ± 2.0	5.3 ± 1.7	4.6 ± 2.2	7.0 ± 1.4	6.6 ± 1.6	6.0 ± 1.9	4.7 ± 2.5	6.0 ± 2.1
Realistic PRO-60	6.1 ± 1.9	4.4 ± 1.3	5.6 ± 1.9	6.7 ± 1.4	5.7 ± 1.5	6.6 ± 1.8	6.4 ± 1.3	7.1 ± 1.7	4.7 ± 1.2	7.4 ± 1.3	5.6 ± 2.5	5.9 ± 1.7
Sennheiser HD 420	7.3 ± 2.6	4.1 ± 1.0	6.8 ± 1.5	7.8 ± 1.3	7.7 ± 0.9	7.8 ± 1.1	7.8 ± 1.2	7.5 ± 0.7	4.8 ± 1.9	7.9 ± 0.9	6.4 ± 2.8	7.8 ± 1.1
Sony MDR-80T	6.2 ± 1.6	3.6 ± 1.6	5.6 ± 2.0	6.7 ± 1.9	6.2 ± 1.6	6.6 ± 1.6	6.4 ± 1.8	6.7 ± 1.7	5.2 ± 2.0	5.8 ± 2.6	5.9 ± 2.6	6.1 ± 1.7
Stanton Model XXI	4.8 ± 1.4	3.0 ± 0.8	3.6 ± 1.5	3.7 ± 1.7	4.0 ± 1.6	5.6 ± 1.3	4.7 ± 1.5	6.1 ± 1.3	6.7 ± 2.1	5.7 ± 2.0	3.8 ± 2.4	3.3 ± 1.8
Yamaha YH-100	6.4 ± 1.6	5.3 ± 1.0	5.7 ± 2.0	6.5 ± 1.3	5.7 ± 1.8	6.6 ± 1.4	6.6 ± 1.3	7.8 ± 1.4	6.3 ± 1.6	5.2 ± 2.9	5.5 ± 2.9	6.0 ± 1.4

Notes on Individual Headphone Tests

THE various headphone tests and their results are generally self-explanatory. Some test scores, however, result from interpretations that are not obvious.

Tests 1, 3, 4, 5, and 6 are "coloration" tests, with a score of 0 meaning obviously colored sound quality

and a score of 10 meaning no audible coloration.

Test 2 is a "level" test. A score of 0 means that deep bass was totally inaudible. A score of 10 means that the bass was overemphasized. A perfect score is therefore a 5, indicating that the bass is correctly balanced

with the rest of the phone's response.

Test 9 is a test of how much the headphone affects the perception of recording noise (tape hiss and record noise). A 0 means that noise is annoyingly emphasized, a 10 that it is severely attenuated. The ideal score in this test is a 5, meaning that some noise, but not too much, is audible.

Test 10 evaluates how much the

scores in the sound-quality section of Table 2 (Tests 1-12) may be of greatest interest. If you'll be using the headphone as a higher-quality replacement for the one supplied with your personal portable cassette player or radio, Test 13 (Weight), Test 17 (Stability), and Test 21 (Apparent Ruggedness) might loom larger in your evaluations. If you do only live recording of pipe organs, Test 2 (Deep Bass), Test 19 (Sound Isolation), and Test 21 (Apparent Ruggedness) might be more important than

the others. Those who tend to feel uncomfortable with headphones altogether might do well to concentrate on the Comfort scores (Test 23 or Figure 2).

Once you decide on the exact combination of characteristics you seek in a headphone, use the data in the tables not as a preselected shopping list but as a helpful shopping guide. The data represent the opinions of skilled listeners and can be used to calibrate your own ears if you are not too experienced in judging headphone sound. We hope

there is a wide enough selection of headphones in this test that you can find at least one that we have tested in your local hi-fi store. From that sample and its performance in our tests you can rate, up or down, all the other phones you are considering.

Don't forget that the performance of any headphone in this test is indicative only of the performance of that *model*, not the whole *brand*. There are probably more expensive models in each manufacturer's line which would score

COMFORT: AVERAGED RESULTS

13. Weight; too heavy = 0	14. Pressure on ears; too much = 0	15. Ease of positioning	16. Ease of repositioning	17. Stability on the head	18. Cord length; just right = 5	19. Sound isolation; none = 0	20. Appearance; ugly = 0	21. Apparent ruggedness	22. Interferes with glasses?	23. Overall comfort	Selected listener comments
6.5 ±1.0	7.2 ±1.4	7.1 ±2.2	7.1 ±2.7	6.2 ±2.1	5.6 ±0.9	4.9 ±1.7	5.1 ±0.7	6.8 ±1.9	6.1 ±2.9	7.5 ±1.0	Very comfortable. Slightly tubby bass. Midrange quite smooth.
7.9 ±1.1	5.6 ±2.3	4.9 ±2.3	5.0 ±2.2	7.0 ±1.4	5.1 ±1.2	2.0 ±1.2	6.3 ±2.4	5.2 ±1.8	8.2 ±2.2	6.0 ±2.4	Good on rock music. Spacious but colored. Cushions are too thin.
5.0 ±2.0	2.8 ±2.6	4.9 ±3.6	5.7 ±2.6	6.7 ±2.3	5.7 ±1.1	6.4 ±2.2	3.9 ±2.9	7.3 ±1.6	7.0 ±2.6	3.6 ±2.9	Uncomfortable. Good low bass. Zippy highs. Strident.
6.9 ±1.4	7.7 ±0.8	7.2 ±2.2	6.5 ±2.7	6.1 ±2.4	5.2 ±1.2	4.4 ±2.5	4.7 ±2.0	7.4 ±1.0	7.7 ±2.3	7.3 ±2.5	Smooth. Lots of detail and space. Piano sounds tubby. Earcups loose.
7.7 ±0.8	6.0 ±2.3	6.3 ±2.3	5.9 ±3.1	7.0 ±2.2	3.9 ±1.2	2.2 ±2.0	5.4 ±2.1	5.8 ±1.7	9.0 ±0.9	6.5 ±2.3	No highs, no bass, hard cushions. Terrible. Colored. Ugh!
7.8 ±1.0	6.9 ±1.3	7.1 ±0.7	7.8 ±1.2	7.0 ±1.1	5.6 ±1.2	3.3 ±2.5	3.8 ±2.1	5.6 ±1.8	8.0 ±1.9	7.3 ±1.2	Colorations not bothersome. Bass-shy. Open and pleasing.
6.9 ±1.4	6.3 ±1.5	7.7 ±2.1	7.1 ±2.8	6.1 ±2.5	5.8 ±1.2	6.4 ±2.0	4.8 ±1.7	7.8 ±1.3	7.2 ±2.8	6.5 ±1.8	Mid-bass hump. Good on rock music. Smooth highs. Muted.
5.8 ±1.5	6.0 ±1.5	8.1 ±1.2	8.4 ±1.0	8.0 ±1.0	4.7 ±0.7	4.3 ±2.2	5.2 ±1.2	7.6 ±0.7	6.8 ±3.3	6.4 ±2.1	Very comfortable. Low and mid-bass too heavy. Very listenable.
7.9 ±1.2	6.7 ±1.9	5.7 ±2.0	7.0 ±2.0	7.6 ±0.8	6.0 ±2.0	2.5 ±1.8	4.8 ±2.0	4.9 ±2.0	8.5 ±1.4	6.4 ±1.6	Attenuated lows and highs. Bass boost would help. Comfortable.
7.6 ±1.3	7.1 ±1.9	6.4 ±1.9	7.0 ±2.3	5.7 ±1.6	5.9 ±1.7	3.0 ±2.0	5.8 ±1.9	5.0 ±1.8	8.0 ±2.2	7.1 ±2.0	Bass boomy. Nasal. Hollow and thin. Very comfortable.
5.9 ±1.7	6.3 ±1.5	7.6 ±1.0	7.7 ±0.7	7.3 ±1.3	4.5 ±1.4	3.9 ±2.3	4.5 ±1.4	7.6 ±1.6	6.7 ±2.3	6.7 ±2.1	Peaky mid-bass. Topy, metallic. Bass overemphasized. Good sound.
7.2 ±1.0	7.2 ±1.3	7.4 ±1.2	7.8 ±1.8	7.5 ±1.2	5.4 ±1.1	3.1 ±1.4	5.4 ±1.5	6.5 ±1.4	7.5 ±2.0	7.5 ±0.8	Fine! Clear, wide, spacious, deep. Slightly bass-heavy. Smooth.
8.2 ±0.6	7.3 ±1.3	5.2 ±2.4	6.0 ±2.8	6.5 ±2.0	6.0 ±1.7	2.7 ±1.9	6.1 ±1.7	5.8 ±1.9	6.9 ±2.7	7.3 ±1.2	Pretty and natural sounding. Smooth but with bass rolloff.
6.3 ±1.5	4.7 ±1.6	6.7 ±2.5	6.4 ±2.3	7.1 ±1.3	5.7 ±0.9	4.9 ±2.0	4.7 ±3.0	7.1 ±1.2	5.9 ±3.6	5.1 ±2.2	Shrill. Strident. Rock music works, but only just.
5.6 ±1.8	5.8 ±1.8	6.8 ±2.0	7.0 ±2.3	5.9 ±2.2	4.4 ±0.9	5.8 ±2.4	5.8 ±1.5	7.3 ±1.2	6.8 ±2.5	6.6 ±1.4	Very smooth. Positioning is critical. Good. Use tone controls.

sound of the headphone changes as it is moved to various positions (all of them reasonably comfortable ones). Some headphones sound radically different if moved only slightly on the ear.

Test 15 rates how easy it is to move the headphone to a reasonable fit and sound, while Test 16 rates how much the headphone has to be read-

justed when removed from and then returned to the head. A headphone that is hard to position properly—and loses its positioning if taken off—might be annoying in use.

Test 18 is another with an ideal score of 5. If the headphone cord is much too short, it receives a 0; too long, it rates a 10.

Test 19 is a test of how greatly the

headphone shields the listener from outside sounds. A 10 indicates total sonic isolation.

In Test 21 the listeners were instructed not to actually test for headphone ruggedness, for that could have led to damaged units. They were only to evaluate how durable the headphone *seemed* to be judging from its materials and construction.

very well in this headphone test; there might even be *less* expensive ones that sound and feel better than the ones tested here. Electrostatic and electret headphones, for example, were repeatedly mentioned in our listeners' comments as being generally superior to almost all the units tested here. Electrostatics certainly deserve a listen if you can afford their generally higher cost and non-portable nature.

A good way to start shopping for a headphone, especially if you've never

used one extensively before, is to borrow one or more from friends. Then you are free to listen to a wide variety of music over an extended period (a headphone should be wearable for *at least* the duration of two LP sides).

In a showroom headphones are usually displayed together and are all attached to the same receiver. You should ask to have a turntable or cassette deck connected so that you can listen to your own program material (carefully selected, of course) and not have to make do

with what happens to be on the air at the time. With such a system you are free to compare headphones as we did in our test.

When changing models, take care to equalize apparent volume levels and to adjust the headphones carefully for best fit and sound (the optimum positions for sound and comfort should coincide). Bass-frequency performance is crucially dependent on headphone fit and positioning, and on some models so are the high frequencies. Equalizing

HEADPHONES...

"showrooms are generally too noisy for a good listening comparison. . . ."

levels is best done with a steady signal such as FM interstation hiss. Unfortunately, the sales pressures of a showroom floor do not often let you wear headphones long enough to judge their comfort properly. Also, even though headphones can mask outside sounds (even the non-sealing ones tested in this report do this to some extent), showrooms are generally too noisy for a good listening comparison of headphones. Try to find a quiet location in the store or arrange a home trial in which you can evaluate headphones in the privacy—and quiet—of your own home.

There is one special trick you *can* use in a showroom that will speed the process of elimination. Play some pink noise or FM interstation hiss through some good speakers. While listening to the speakers, cup your hands over your ears and notice the distinct change in sound character (ignore any decrease in high frequencies and listen only for a definite midrange coloration). Some headphones can create the same effect as your cupped hands because those headphones, like your hands, create a resonant cavity around your ear, a cavity that will not only color outside sounds but the headphone's sound as well. To test for this, put the headphones on while they are unplugged and listen to the hiss or noise playing through speakers. Ideally, you should hear nothing (the headphones will have completely attenuated outside sounds) or no substantial sonic change at all (the headphones are free of any "cupped hands" coloration).

One final bit of advice: unless you in-

tend to listen to your headphones that way always, *never* push or hold a headphone onto your ears while you are trying to evaluate its sound or comfort. Headphones are meant to sit *unaided* on your head and ears. Besides, if you hold the earpieces to your ears you stand a good chance of obscuring the acoustically important vents on the backs of many headphones.

Does all this advice sound complicated? It is. But then we never said that selecting a headphone would be easy. It is our hope, however, that the methods, data, and test results presented here will make your task at least a *little* less difficult. □

Dr. Puddie Rodgers, a young psychoacoustician of exceptional promise, contributed valuable advice and help toward the design of the test procedures used in this study. She died while the article was in preparation, and it is therefore dedicated to her memory. —D.R.

SINCE the first seven evaluations in the listening portion of these headphone tests were keyed to specific selections on a test cassette, a description of the program material is in order. Of the seven selections on the test tape, three (of wideband material containing significant signals from all parts of the audible spectrum) were designed for checking overall frequency balance. The remaining four selections were designed to test for colorations in selected portions of the frequency range (lower midrange, upper midrange, and deep bass).

The tape started not with music but with about one minute of 20- to 20,000-Hz pink noise obtained from an Ivie IE-20A pink-noise generator. Pink noise has equal energy per octave of bandwidth and appears on an audio spectrum analyzer as "flat." Interstation hiss on FM sounds like pink noise but actually has much less bass energy as well as slightly rolled-off ultra-high frequencies. Pink noise can make frequency-response aberrations obvious since all frequencies are presented simultaneously.

Low bass (below 60 Hz) was tested using the opening minutes of Bach's Organ Toccata in F, BWV 540 (Telarc DG-10049, Michael Murray, organist). The music opens with the sustained low-frequency pedal tones necessary for proper evaluation of low-bass performance. Bass-drum rolls—not "thwacks"—can serve the same purpose.

Recordings of the female voice have always been used as critical source material during listening

THE TEST TAPE



tests, possibly because of the large amounts of midrange energy such voices contain and because most of us are familiar with how they *should* sound. Accordingly, the next two selections (Tests 3 and 4) were of female singers. In the first, Linda Ronstadt sang *Blue Bayou* ("Simple Dreams," Nautilus NR 26), and in the second Esther Lamandier sang the fourteenth-century ballata *I' vo' Bene* by Gherardellus de Florentia ("Decameron," Astree AS 56, available from AudioSource, 1185 Chess Drive, Foster City, Calif. 94404).

Test 5 was another wideband selection, the Atlanta Symphony under conductor Robert Shaw. The music was the first movement from Hindemith's *Symphonic Metamorphosis* (Telarc DG-10056/57).

Test 6, designed to test lower-midrange coloration, used Dietrich Fischer-Dieskau singing *Ich Kann Wohl Manchmal Singen* from Robert Schumann's *Liederkreis*, Op. 39 (Deutsche Grammophon 2531 290).

The last required-listening selection, also wideband, was of a contemporary rock band with synthesizers,

drums, female vocals, etc. The selection used was *Life in Motion* ("Eye to Eye," Warner Brothers BSK 3570).

Should you wish to put together a test tape of your own, notice that all the selections, except for the orchestral excerpt, have something in common: continuity of texture. It is obvious that the sound of a piece of program material would stay more or less *constant* through its duration in the case of pink noise, but not so obvious in the others. We deemed it necessary to maintain a similarity in musical and sonic makeup during each selection because listeners could then concentrate single-mindedly on headphone sound. Distractions caused by continuous and rapid changes in the music's instrumentation and loudness were therefore avoided.

THE test tape itself was made in a two-step process. The first step was to dub all the selections *digitally* using Sony's PCM-F1 digital-audio adaptor and a Beta-format VCR. The turntable was a Sony PS-X75, the cartridge a Shure V-15 Type IV, and the preamp an Apt/Holman unit. The second step was to copy the digital tape onto two TDK MA metal-tape cassettes with a Nakamichi LX-5 cassette deck. Dolby-B noise reduction was used for compatibility with our listeners' own cassette decks. Two copies of the test sequence were recorded on each side of the tapes so that listeners would not wear each tape unduly with repeated shuttlings.



Lincoln Perry

STEREO TV

High-quality audio for broadcast television is at last a real possibility, pending only an FCC decision

By Len Feldman

If you have ever watched a televised concert while listening to it via a "simulcast" (simultaneous broadcast) in wide-range stereo by an FM radio station, then you know what quality audio can do for video. Regular readers of STEREO REVIEW know that the technology for transmitting full-range stereo sound along with the TV picture has been available for years. After all, the sound channel of TV broadcasts is FM with a potential frequency response ex-

tending out to 15 kHz and plenty of room for multiplex subcarriers. The problem is not technology but bureaucracy: stereo TV must wait until the Federal Communications Commission (FCC) approves one of the several contending stereo-TV broadcast systems.

More than three years of on-the-air experience with stereo TV in Japan has demonstrated that the public responds to two-channel audio enthusiastically and that even sporting events benefit

from stereo sound. Perhaps equally important is the fact that multichannel TV audio lends itself to bilingual broadcasts using the same technology as stereo sound. Foreign films, for example, are now routinely shown in Japan with a dubbed Japanese soundtrack on one channel and the original English, French, or whatever on the other. Multichannel audio TV receivers in Japan are equipped with an automatic or manual switch that selects either

“... the FCC might well decide to let *all three* systems go on the air”

stereo or bilingual reception depending on the broadcast.

Just how this stereo/bilingual capability will affect TV broadcasting in this country remains to be seen. In areas with large Hispanic populations (New York City, Miami, and the Southwestern states), for example, major broadcasters might very likely use English/Spanish bilingual broadcasting for most programming and stereo only for musical broadcasts.

The question of whether or not stereo sound on TV would be worthwhile was first broached in the late Fifties, when the FCC was considering which of five proposed systems to adopt for stereo-FM broadcasting. It was concluded at that time that stereo sound on TV would *not* be desirable. According to the “experts,” the paradox of a small screen surrounded by big, expansive sound would be rejected by viewers! Furthermore, with the poor quality of TV sound then (and, to some extent, even now), no one would care whether it was heard in mono or in stereo.

Shortly after Japan initiated regular stereo-TV programming, a committee of video-industry members was formed in the U.S. under the aegis of the Electronic Industries Association (EIA). With the blessing of the FCC, this Multichannel TV Sound (MTS) committee invited those who wished to offer stereo-TV broadcast systems for consideration to do so. These would be evaluated mathematically, in the laboratory, by means of listening tests, and in actual on-the-air field trials. The results of the testing would be submitted to the FCC, which would legally mandate the specific technique to be used for stereo audio on American TV.

Three different systems were proposed. One, virtually identical to the system currently in use in Japan, is known as the EIAJ (Electronic Industries Association of Japan) system. The two other systems under consideration are those proposed by Zenith and Tele-sonics (see box on facing page). As of this writing, the tests have been completed on all three systems. The MTS committee is now condensing the voluminous data amassed (a pile of documents about 18 inches thick) into a report for submission to the FCC by early

this summer. Departing from earlier custom, the EIA, after discussing the MTS report with a cross-section of interested industry parties, expects to recommend a specific system.

In previous proceedings of this kind, EIA committees traditionally remained neutral, supplying the data and letting the FCC engineering staff come to its own conclusions. Recently, however, there has been a tendency at the FCC to rule in favor of so-called “market-place” decisions. In other words, the

ence gained from the confused four-channel-sound situation of a few years ago (in which the FCC was *not* involved), and the confidently expected chaos of AM stereo, industry experts maintain that a multiplicity of systems would certainly confuse the public and might even make the better TV receivers prohibitively expensive (top-of-the-line models would very likely have to incorporate suitable decoders for *all three* proposed systems).

All of the proposed systems are sonically and technically compatible with existing mono TV sets. That is to say, a present-day mono TV set would present both channels of a stereo-TV broadcast from its single speaker in much the same way a mono FM radio mixes a stereo-FM broadcast's left and right channels into one. With bilingual transmissions, however, a viewer would hear only the “primary” language broadcast over the main audio channel.

Unfortunately, audiophile TV listeners will pay a price for the pleasures of stereo reception. All of the proposed stereo-broadcast systems will degrade audio signal-to-noise ratios (as compared with the S/N for a mono transmission measured at the same distance from the transmitter). In theory, the Japanese EIAJ system should offer the least degradation in S/N, but in practice there are other variables that determine ultimate residual noise levels for each of the systems.

Recognizing the noisy facts of life, the MTS/EIA committee invited the submission of proposals for a noise-reduction system that would serve as an integral part of the new standard for stereo/bilingual TV audio. Three compander noise-reduction systems (compression during transmission, expansion during reception) were proposed and have been tested (including listening tests) in the laboratory. The proposed three companding systems are Dolby-C, the CBS CX system, and a specially modified version of the dbx system. Non-companding noise-reduction systems (such as National Semiconductor's DNR—Dynamic Noise Reduction) don't require FCC approval since they do not involve modification or encoding of the signal before broadcast.

Initial indications suggest that none of the three companding systems was *clearly* superior for all types of music or speech used in the tests; each was effective for certain types of program material. Be that as it may, the EIA committee (and, later, the FCC) is faced with *nine* possible system permutations: there are three basic *transmission* systems, each of which might be used with any one of three possible *noise-reduction* systems.

FOUR-CHANNEL FM

AN “open docket” on four-channel FM is still in the files of the Federal Communications Commission, and it requires some disposition. In other words, the FCC is legally required to make a decision with regard to quadrasonic FM broadcasting even though that decision may now be pointless.

Rumors abound in the hi-fi community, among them one saying that the choice has narrowed down to the



fully discrete system of QuadraCast Systems, Inc. (QSI) and the semi-discrete system of RCA. It is also said that a decision is “imminent,” whatever that may mean.

Those familiar with the situation agree that any decision at this time is not likely to result in a rush to produce a lot of four-channel hardware or software. Some degree of interest might be rekindled, however, if radio stations in metropolitan areas recognize a competitive opportunity in an FCC decision and decide to be the first in town with a “new” format. So be on the safe side: don't junk your old four-channel amplifier just yet.

FCC might well decide to let *all three* systems go on the air and compete for public acceptance, just as they recently did with AM stereo. The EIA, together with most of the TV and audio industry, believes that such a retreat from a previously accepted responsibility could well destroy stereo TV before it ever gets off the ground. Citing the experi-

Stereo Video Now

While you wait for stereo TV broadcasting to begin, there are at least two video program sources that can supply you with good stereo sound right now. At least two manufacturers of videocassette recorders (Akai and JVC) offer stereo recording and playback capabilities in some of their current models. To play back stereo sound you need only connect audio cables directly from the stereo audio-output jacks of the VCR to a pair of high-level input jacks (such as AUX) on a home stereo system. Connecting the VCR's output in the normal way to get a TV set's antenna terminals results in mono sound coming out of its speaker even if the program source is in stereo (the same is true for those current videodisc players that offer two-channel sound). In short, they will play in mono if the composite r.f. audio/video signal is fed through the TV set's antenna terminals and in stereo if fed from the audio-output jacks on the player into the inputs of a hi-fi system.

Future of Stereo TV

Regardless of which stereo/bilingual TV system is ultimately chosen for use in the U.S., the transition to multichannel TV will no doubt generate a host of new audio and video products. Among them will be stereo-TV decoder/adaptors incorporating an extra amplification channel and a speaker, stereo-TV audio tuners (minus the video circuitry) complete with stereo/bilingual decoder circuitry (for use with existing stereo audio systems), and, of course, a new generation of TV receivers fully equipped to reproduce stereo through self-contained or separate twin loud-speaker systems. All these variations and more are already available on the Japanese market (see "Stereo TV in Japan," April 1981 STEREO REVIEW).

When stereo TV finally arrives on the American market, it is likely to have a very positive effect on the TV-broadcasting and home-electronics industries as well as on the nation's audiophiles. Broadcasters are likely to be motivated to provide upgraded sound on both channels once they have evidence that their audience cares about TV sound quality. The TV-set manufacturers will have the opportunity to sell an entirely new class of sonically upgraded two-channel TV sets. The hi-fi manufacturers will have a whole new category of components to sell, and, most important, the audio/videophile will have a selection of broadcast Broadway musicals, opera, ballet, recitals, and rock performances to watch and listen to in full stereo fidelity. □

STEREO TV—HOW IT WORKS

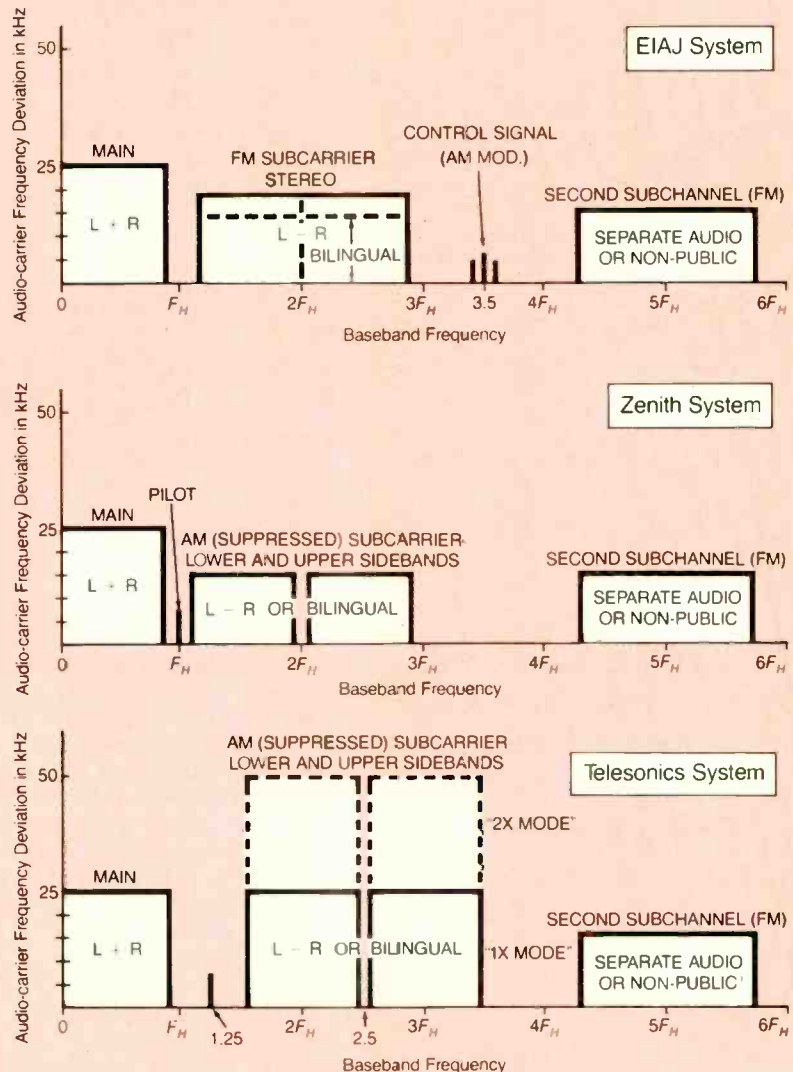
A TELEVISION audio signal is, in a way, a separate FM broadcast signal sent along with the video broadcast signal. Once the television receiver separates the FM audio signal, that signal is handled just like a mono-FM radio signal.

It logically follows, then, that most of the projected techniques for transmitting stereo audio on TV are similar to the multiplexing techniques used to broadcast in stereo on FM radio. However, instead of using the 19-kHz FM pilot signal, these TV systems employ the horizontal line frequency (15.73426 kHz, the rate at which a video picture is built up by the horizontal sweep signal); multiples of that frequency serve as carriers and pilot tones for the various subchannels needed to carry stereo/bilingual information.

The three frequency-band schematics below show how three companies propose to use these subcarriers to transmit stereo and bilingual sound.

The vertical axis of the charts represents the audio carrier frequency, and the horizontal axis represents multiples of the horizontal line frequency (F_H , $2F_H$, $3F_H$, ... etc.).

The main differences between the three systems are the means used to modulate the first subcarrier. The EIAJ system uses frequency modulation of the stereo/bilingual subcarrier while both the Zenith and Telephonics systems use amplitude modulation of a suppressed carrier. This may seem to make the EIAJ system preferable—everyone knows FM sounds better than AM—but it's not necessarily so. After all, the current stereo-FM broadcasting system also uses an amplitude-modulated suppressed carrier. Each system, in fact, seems to have its own advantages and disadvantages, and by the time you read this the EIA (Electronic Industries Association) may have sorted them out enough to make a recommendation to the FCC.



QUAD LIVES!

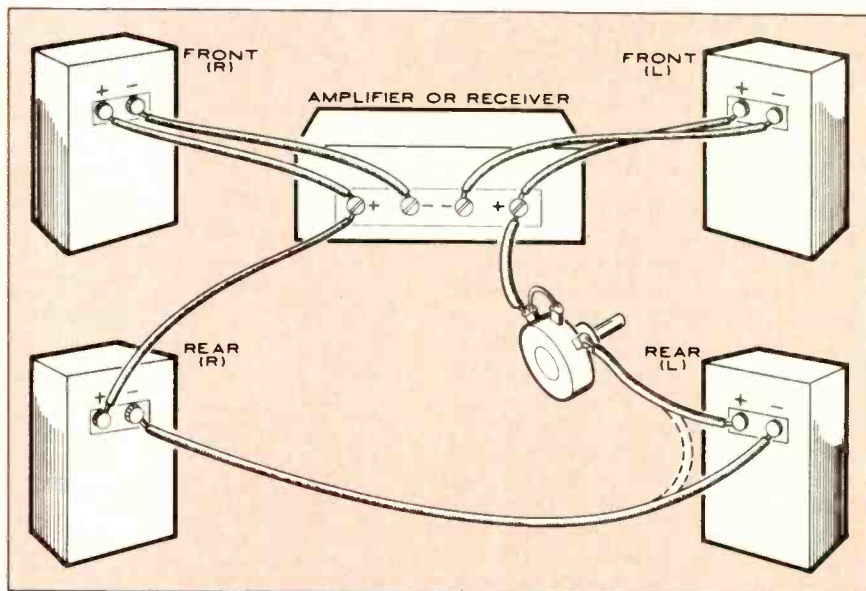
By Ivan Berger

QUADRAPHONIC sound is out of the limelight these days, but its main objective—improving the spatial perspective of reproduced music—is still very much with us. Shortly after the equipment and recording industries' brief fling with four-channel sound ended a few years ago, a number of manufacturers began to produce delay systems that required extra speakers as well as various "imaging" devices and techniques that did not. But real four-channel reproduction is still available for those who want it. At the last CES, for example, Tetrasound showed prototypes of four-channel systems for the home and (at the AFS Kriket booth) for the car as well. The British

two, perhaps a level control, and some speaker wire. (*It won't work with every amplifier, however.* Amplifiers with "bridged" or reversed-polarity output circuits, such as the Adcom and Carver units, may sense this connection as a short and shut down. Such amplifiers' instruction books will often carry warnings against headphone or other connections which join the two channels together. If in doubt, check with your amplifier's manufacturer.)

With the Hafler circuit, the front speakers each get their normal left or right signals, while the rear speakers get a signal that is the "difference" signal—the difference being that between the left- and right-channel signals—

Figure 1. The basic Hafler circuit consists of two speakers and a level control connected in series across the two positive (+) terminals of the amplifier. If only a single rear speaker is to be used, connect it directly to the level control as indicated by the dotted connection.



The Hafler "pseudo-quad" hookup will give you out-of-phase information, mainly reverberation—exactly what you want for a natural sound perspective

continue to experiment with so-called Ambisonic recordings and broadcasts, and die-hard quadraphiles still have their own magazines: *Evolution Quarterly*, Dept. SR, 23757 Canzonet Street, Woodland Hills, Calif. 91367, and *MCS Review*, Dept. SR, P.O. Box 19, Capron, Va. 23829. Both have record- and tape-sale subsidiaries.

But there's another route to quadraphonic sound: the so-called Hafler circuit, named after its inventor David Hafler. It's not new, and it isn't really four-channel, but it is inexpensive to add to your system (not counting the extra speakers) and doesn't require special four-channel recordings.

The basic Hafler system (see Figure 1) requires only an extra speaker or

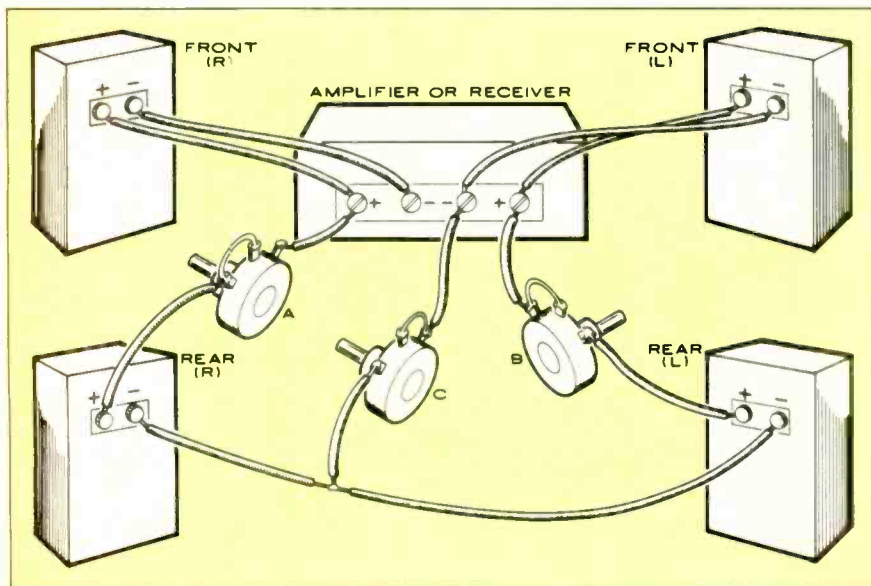
consisting of any frequencies that do *not* appear in equal strength and in phase in both channels. (A mono signal, lacking the difference, will of course produce silence in the rear channels.) On many recordings (especially classical ones), out-of-phase information is mainly reverberation, which is exactly what you want from your rear channels for a natural sound perspective. On some recordings (mainly rock records made from multichannel master tapes) individual instruments or whole sections can pop out of the extra speakers for a surround-sound effect.

The added speakers can be placed in the rear of the room, but most experienced listeners to Hafler (or delay) systems prefer them at the sides. The

speakers need not be large or expensive as long as they are reasonably smooth and clean. You may even be better off with *inexpensive* speakers. The extra bass added by top-quality units can be too much if the front speakers are already adequate in the low-frequency department. And add-on speakers with too good a high-frequency response can sometimes exaggerate tape hiss or other noises, even causing momentary confusion as to where high-frequency transients (such as those from cymbals) are originating. I suspect that many single-cone car-stereo speakers, if mounted in suitable wood boxes, would do very nicely and are likely to have adequate efficiency.

er that bounces its sound off the adjacent wall.

With two speakers, the preferred position seems to be on both sides of the listener and facing inward. The great thing about the Hafler system, however, is the fun that can be had experimenting with different setups and rear-channel volume levels. It is usually recommended that you set the volume in the extra speakers low enough that you notice they were there only when you turn them off. If your amplifier or receiver has an A + B speaker switch, you can connect the speakers across the two "hot" or "+" terminals of the B speaker circuit and switch them in and out with the speaker-selector switch.



The audible effect of the system will vary from record to record

Figure 2. This circuit provides the rear speakers with right-left stereo perspective. Controls A and B set the volume levels for their respective rear speakers and C controls the relative levels of the stereo and ambience signals. Use 50-ohm potentiometers with at least a 2-watt rating for all controls.

If the extra speakers are very efficient, they may be too loud for creating a satisfactory effect, but you can cut down their volume with a level control wired as shown in Figure 1. (It should be a 25- or 50-ohm wire-wound potentiometer rated at 2 to 5 watts.) If the speakers available are not terribly efficient and therefore not loud enough, you might try using only one of them.

THE positioning of the speakers will have considerable impact on the spatial effects of the Hafler circuit. For systems with a single rear speaker, the best results are usually achieved by mounting the speaker above and behind the listener, although some listeners prefer a floor-mounted, upward-facing speak-

A variation on the Hafler circuit is shown in Figure 2. It sacrifices some of the reverberant rear-channel information in the interest of adding some left and right stereo perspective. If the resistance of the spread control (C) is high, both of the rear speakers get the same difference signal as they would with the circuit shown in Figure 1. As the control resistance is decreased, the left-rear speaker gets more pure left signal and less difference signal; the right speaker acts the same way but with right-channel information. Note that the audible effect of this system of four-channel simulation will vary from record to record and that different recordings may benefit from different settings of the controls. □

The great thing is the fun to be had experimenting with different setups



The Albani Quartet

Left to right, Howard Davis (first violin), Roger Best (viola),
David Smith (cello), and Peter Pople (second violin)

STEREO REVIEW'S SELECTION OF RECORDINGS OF SPECIAL MERIT

BEST OF THE MONTH



• Benjamin Britten's Affecting Valedictory Quartet •

BENJAMIN BRITTEN's Third String Quartet, composed in 1975, is his last major work. It was written for the Amadeus Quartet and given its premiere by that group in London two weeks after the composer's death in December 1976. A recording of the work by the Amadeus was issued in England nearly two years later by Decca, but it is only now that a recording has reached our shores, and it is not the Amadeus', but a splendid and very moving one by the Alberni Quartet on a CRD import (it is paired with the Second Quartet, which Britten composed some three decades earlier).

Chamber music was never, quantitatively, a major part of Britten's compositional output, but individual chamber works were important throughout his career. One of the earliest to bring him attention was the Fantasy Quartet for Oboe and Strings, Op. 2, composed in 1932 when he was nineteen, and his First and Second String Quartets, composed in 1941 and 1945, respectively, were extensive and effective explorations of the medium.

The Third Quartet is an intense and provocative work, one that suggests a deep personal expression; this impression is enhanced by the music's reminders of Britten's friend Shostakovich, who died the year the work was written, and of Mahler, whom they both revered. The "autobiographical" nature of the music, in fact, is more or less certified by the presence of overt references to Britten's final opera, *Death in Venice*, whose premiere took place in June 1973.

Peter Pople, the Alberni's second violinist, in a cogent note which is difficult not to quote, traces the references to the opera and its setting throughout the work. He notes that the Third Quartet is "both a reflection upon and extrapolation of the opera's emotional world," not a programmatic work but "a distillation of drama into pure music." The symmetrical five-movement layout as well as the actual content may be said to reflect the Mahler/Shostakovich influence. The opening movement, headed "Duets," presents the instruments in all possible duo combinations. The second, "Ostinato," is a sort of good-natured scherzo. At the center is a poignant "Solo" for the first violin, the part lying quite high and accompanied only by the most discreet line of arpeggios—which underscore the mystic ef-

BRITTEN: *String Quartet No. 2, in C Major, Op. 36; String Quartet No. 3, Op. 94.* Alberni String Quartet. CRD 1095 \$10.98 (from Qualiton Records, Ltd., 39-28 Crescent Street, Long Island City, N.Y. 11101).

fect with their clear relationship to the "*Muss es sein?*" figure in Beethoven's final quartet. The fourth movement, "Burlesque," calls to mind quite strongly the characteristic drive of Shostakovich's scherzos. As if to leave no doubt regarding the purposefulness of his al-

lusions to *Death in Venice*, Britten headed the final movement "*La Sere-nissima.*" It takes the form of a recitative and passacaglia, built entirely on material from the opera, and it is as clearly a gesture of farewell as any that Mahler made.

To my ear, Britten wrote no more affecting music than this final quartet, and, while I have yet to hear the Amadeus performance, I cannot imagine a more affecting one than the Alberni's. Britten himself had coached the Alberni some years back, not only in his own music but in the quartets of Shostakovich; he was not available, of course, to help the players prepare this work, but their earlier experience is well reflected in their totally sympathetic and profoundly communicative response. With this level of advocacy, the Third Quartet should become a repertoire work before it is ten years old.

The Second Quartet, composed for the 250th anniversary of the death of Purcell and culminating in a massive "Chacony," has already been well served by the Allegri Quartet on an economical London disc with the First (STS 15303). The Alberni approach, a tiny bit more expansive, benefits from a somewhat warmer sonic focus, though both performances are really about equally persuasive. This duplication of the Second Quartet is easily borne, I think, but it can be avoided by seeking out the Alberni recording of No. 1, paired with the Shostakovich Piano Quintet on CRD 1051.

However one may choose to deal with the question of duplication, this new

" . . . the Third Quartet should become a repertoire work before it is ten years old."

disc of the Second and Third Quartets is absolutely not to be missed. The sonic focus is not only warm but exceptionally well defined, with the four instruments in the most natural and lifelike balance; the pressing too is exemplary.

—Richard Freed

Van Morrison's Celtic Soul Sparks One of His Best-performed, Best-arranged Albums

IN Warner Bros.' new "Beautiful Vision" we get Van Morrison fully realized. The album shows why the greatest soul singer Ireland has yet produced may also be the greatest the pop world can boast today. Van Morrison uncovers more of the human soul, and with less artifice, than most pop artists know exist. He strips life down to its elemental, enduring truths: the truth of a mother's love for her children, of a man's love for his country, the truth in a moment of creative inspiration.

Some of the songs in "Vision," such as *Celtic Ray* and *Cleaning Windows*, will become classics, the distilled essence of Morrison as a mature artist. *Celtic Ray* powerfully evokes the strong emotional pull felt by expatriate natives of Morrison's homeland: "Over Ireland, Scotland, England, and Wales/I can hear the mothers' voices calling/Children, children, children . . ./Come

home, children." It's been done before (*Come Back to Erin, The Old House*), but not, I think, better. *Cleaning Windows* is even more remarkable. It would probably occur to very few artists to sing about life as a window washer. And none I can think of would treat it as Morrison does, without condescending sentimentality or false pity, but joyfully, as an affirmation of life, of work, and of music.

These two songs are truly exceptional, but there is no song here, I believe, that will fail to stir you, principally because, beat for beat and note for note, nobody else sings *from* the heart to the heart like Van Morrison. He's capable of tremendous energy and power—plus a paradoxical, arresting tenderness—yet, even at his most intense, Van Morrison is a *serene* artist.

"Beautiful Vision" is also one of the best-performed, best-arranged albums Morrison has ever done. Any good rhythm section can smoke; the test of a great one is how it handles a ballad. In pace, dynamics, in filling the right spaces and leaving the right ones empty, this outfit shows it understands what soul is all about. "Beautiful Vision" contains something I can't remember ever hearing on a Morrison record before: one entirely instrumental cut, *Scandinavia*. It shows that even when he's not singing, Morrison has the ability to move you. The expansive synthesizer and the cascading piano of *Scandinavia* create the impression of soaring magically, effortlessly above icy, irregular coastlines.

Always compelling—if somewhat erratic earlier in his career—Morrison has sustained an exceptionally high level of quality in his recent output. "Vi-

sion" takes its place with the very best of his work, swelling the ranks of "must" albums Van Morrison continues, amazingly, to give us.

—Mark Peel

VAN MORRISON: *Beautiful Vision*. Van Morrison (vocals, piano); vocal and instrumental accompaniment. *Celtic Ray; Northern Muse (Solid Ground); Dweller on the Threshold; Beautiful Vision; She Gives Me Religion; Cleaning Windows; Vanlose Stairway; Aryan Mist; Across the Bridge Where Angels Dwell; Scandinavia*. WARNER BROS. BSK 3652 \$8.98, © M5 3652 \$8.98.

John Denver, Rich And Successful, Works Hard—and Makes Another Success

JOHAN DENVER, who still gets a fold-out album jacket from RCA, state of the economy be damned, is above the fray. He can make a movie, get on television, sell out the country's biggest concert hall any time he pleases, and he can still sell a ton of records—whether in the unlikely company of the Muppets or in the equally unlikely company of Plácido Domingo. He no longer has to grub it out down in the trenches with the likes of Styx and Pat Benatar; he is approaching iconhood, a state already reached by Frank Sinatra, Johnny Cash, George Burns, and few others

From the left: Van Morrison, John Denver, and Edita Gruberova, a trio of songbirds who deal in power, poetry, and coloratura.



Lynn Goldsmith/LGI

left alive. Now: consider how he behaves under these circumstances, and how he produces. You've got to admit the man has a certain amount of grace and a fair amount of class.

Both qualities show in "Seasons of the Heart," a new album that gives him quasi-Memphis backing but really features a bunch of fresh Denver songs that are as pretty as a litter of speckled pups. Since 1978 or so, Denver has been trying out his gold-flecked tenor voice against various back-up combinations, most of them harder than the acoustic-dominated "Rocky Mountain High" ones, and he has been hardening up his lyrics too, turning a subject over and giving it a tougher scrutiny than he used to.

He always wrote fine melodies, and this album is so melodic that the Memphis influences (Glen D. Hardin's keyboards, Jim Horn's reeds) play a secondary role. There are strings here and there, and a fair amount of acoustic guitar. Apparently he wrote some of the songs on a trip to the Far East, and a couple have him dipping into Jimmy Buffett's waters. *Islands*, with its strange but effective *a cappella* introduction, is the more impressive. But *Shanghai Breezes* is cleverly built: just as the wafting-back-and-forth tune starts to get tedious, it takes off and spirals upward, ending on a high note as Denver pronounces the last syllable of "Shanghai." Elsewhere, *What One Man Can Do* is simply elegant at the difficult job of being optimistic, full of subtleties that indicate how Denver has matured with this kind of song.

Although the lyrics are... well, more grown-up, the approach here generally is gentle and poetic, and Denver

seems to have succeeded at a high percentage of what he tried to do. But the important thing is, seldom does one so insulated from necessity by success give himself such difficult assignments. Even Sinatra has been known to take a day off.

—Noel Coppage

JOHN DENVER: *Seasons of the Heart.* John Denver (vocals, guitar); instrumental accompaniment. *Seasons of the Heart; Opposite Tables; Relatively Speaking; Dreams; Nothing but a Breeze; What One Man Can Do; Shanghai Breezes; Islands; Heart to Heart; Perhaps Love; Children of the Universe.* RCA AFL1-4256 \$8.98, © AFK1-4256 \$8.98, © AFS1-4256 \$8.98.

Edita Gruberova Shows Why She Is Today's Star of Stratospheric Singing

COLORATURA soprano Edita Gruberova's new Angel digital recording of French and Italian opera arias reveals a warmth and roundness of tone that are altogether delightful. Although Gruberova's impressive gifts are not exactly unknown and have been amply displayed on previous recordings, none before has so captured the beauty of her voice—the result, most probably, of more careful microphoning than she has received in the past. She delivers here a program of familiar material with uncommon assurance and virtuosi-

ty. Her technique is fluent and her command of the high register is simply dazzling; the high *F in alt* gives her absolutely no trouble. As is often the case with such high flyers, the voice has little support at the low end, but the low end is hardly what we listen for in this repertoire. Tiny imperfections aside, Gruberova's intonation is also admirable, something not always to be counted on in stratospheric singing. With careers going in unlooked-for directions these days, and with new talent appearing without notice, one finds it difficult to make lasting judgments, but it certainly appears that, for the moment, Gruberova is the reigning queen of this excitingly acrobatic repertoire.

The Italian side of the disc shows more characterization than the French—Gruberova's Lucia and Rosina in particular emerge with distinct individual touches—but no real objections can be made to her French interpretations either. I find the recorded sound very good. At times conductor Gustav Kuhn's tempos seemed a bit too leisurely to me, but that is a minor point. I have not heard such an impressive account of these coloratura specialties in a long, long time.

—George Jellinek

EDITA GRUBEROVA: *French and Italian Opera Arias.* Delibes: *Lakmé: Ou va la jeune Indoue? (Bell Song).* Meyerbeer: *Les Huguenots: Nobles Seigneurs, salut! Gounod: Roméo et Juliette: Ah! Je veux vivre (Waltz Song).* Thomas: *Hamlet: Mad Scene.* Donizetti: *Lucia di Lammermoor: Il dolce suono (Mad Scene).* Rossini: *Semiramide: Bel raggio lusinghier. Il Barbiere di Siviglia: Una voce poco fa.* Edita Gruberova (soprano); Munich Radio Orchestra, Gustav Kuhn cond. ANGEL 1 DS-37870 \$10.98, © 4ZS-37870 \$10.98.



Michael Pulland/Rama



Steve Fellerman/Angel/EMI

Classical Music Briefs



Frank Salomon, Associates

Richard Stoltzman with son Peter John and wife Lucy

SOLO clarinetist and chamber-music player **Richard Stoltzman** is a rare success ("an artist of indescribable genius"—Paul Hume, *Washington Post*) in a rare profession. Clarinetists used to sit in pairs in symphony orchestras rather than wandering around the world as soloists, but, then again, so did flutists before Jean-Pierre Rampal and James Galway. There seems to be something special about solo clarinetists, though, that sets them apart from other traveling virtuosos: many of them (if one can speak of many with such a small group) also play jazz. So it was not a complete surprise that Stoltzman's April 28th recital at Carnegie Hall was dedicated to Benny Goodman and that it included a jazz set.

Stoltzman was born in Nebraska, grew up in San Francisco and Cincinnati, and studied at Yale, so moving around is not altogether new to him. But

how does he like the life of a gypsy? "You find yourself in a vacuum. Airport, taxicab, concert hall, hotel, taxicab, airport. You have to read newspapers to remember you're still in the world. The stage, when I finally get to it, is almost the only place where I can really relax. It's all the warmth. You know you're finally in your right space where you can be yourself."

Stoltzman goes on three tours a year as clarinetist of the chamber group Tashi, each two to three weeks; he plays eighteen or twenty concerto dates, does two three-week tours with jazz pianist Bill Douglas, a number of recitals with pianist Irma Vallecillo, twenty concerts with a trio he has formed with pianist Lee Luvisi and violist Walter Trampler, and assorted dates with other artists, such as Pinchas Zukerman and the Cleveland Quartet. When I asked him how many concerts a year he played, he answered, "I don't

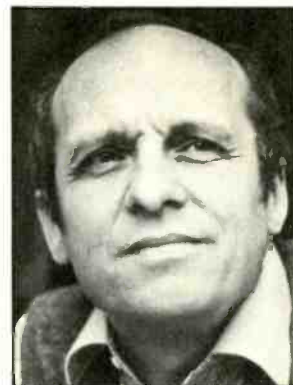
know." He wasn't surprised I asked. He just didn't know.

Who goes to hear a clarinetist? According to Stoltzman, the old/young balance varies tremendously. Do other clarinetists catch his act? "Clarinetists I've met have been terrifically supportive. They really seem to like the idea that somebody is making it as a soloist. There are lots of wonderful clarinetists in the States. But there was this space for a soloist and I just fell into it. Sure, some clarinetists come backstage and ask, 'What kind of reed are you using?' or something like that, but generally I'm not playing to show other clarinetists how. I've gotten a much greater consciousness of other people. When you replay in places there's a real feeling of trust that comes across from the audience. I use that to play repertoire they might not have been willing to listen to the first time I came around, but now they're willing to go along with me."

Richard Stoltzman's latest RCA record is of the two Brahms clarinet sonatas, reviewed on page 50 of this issue. No jazz yet, nothing too far out, but wait until that feeling of trust gets across. —J.G.

WHEN the French composer/pianist **Claude Bolling** came to New York recently to take part in the American premiere of his *Baroque Suite for Chamber Orchestra and Jazz Trio* with the Syracuse Symphony, we asked him how he felt about it. "Performing with a symphony orchestra is something new for me," he said. "For a fifty-two-year-old jazzman it is exciting."

Bolling is best known to American record buyers not as a jazz pianist but as a collaborator with famous classical soloists on a series of extremely successful crossover albums. His *Suite for Flute and Jazz Piano*, which he wrote for the flutist Jean-Pierre Rampal and recorded with him on CBS Masterworks, was on the charts of best-selling records for more than three hundred weeks. It was certified gold by the RIAA when its sales passed 500,000. Similar records have followed with such artists as violinist Pin-



chas Zukerman, guitarist Alexandre Lagoya, and trumpeter Maurice André.

"I was not the first to combine musical styles," he says. "Before me there were others, such as the Swingle Singers and the Modern Jazz Quartet. I was never too fond of these mixtures, but when Rampal asked me to write something for him, I agreed to try. He liked what I did, and we decided to record it just for fun. We had no idea that it would be such a success."

Born in Cannes, Bolling was

educated in Paris. Although he had formal piano lessons and private instruction in harmony, counterpoint, and orchestration, he started working in clubs while quite young and got much of his musical education simply from performing with more experienced colleagues. Among the American jazz artists he worked with in France were Louis Armstrong, Sidney Bechet, Duke Ellington, and Lionel Hampton. As a composer of film scores, Bolling says he is self-taught, having learned by experimentation and trial-and-error. His best-known movies in the United States have been *Borsalino*, *California Suite*, and *Willie and Phil*.

In July, Philips will release a solo piano album, "Bolling Boogie," and for fall release CBS Masterworks is repackaging his crossover albums in a box titled "Suite Inspiration." Although New York concert reviewers found the *Baroque Suite for Chamber Orchestra and Jazz Trio* rather thin, CBS plans to record it later this year.

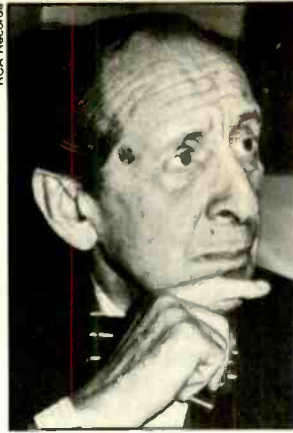
Whether crossover music is good or not depends, Bolling says, "on how it is done, why it is done, and whether it is done with taste. The main thing is entertainment. Music is meant to make people happy. There are many bad ways to do this, but music is a good way."

Bolling's colleagues have

come from widely differing musical backgrounds, but he says they all share the same professionalism, the same wish to give pleasure to an audience. "They are all men who are completely crazy about music. If you are not crazy, you don't go into this business. Your friends can have long vacations in the country or go to ski in the mountains, but if you are a trumpeter like Maurice André or a pianist like Jean-Bernard Pommier, you have to stay at home and practice six to eight hours a day. It's slavery, and you must be crazy to accept it. The reward for this work comes from the public in a form that is difficult to analyze. It is like a mysterious radio wave." —W.L.

MANY doctors say that "aerobic" exercise—vigorous activity that gets the heart pounding and the blood racing—is good for what ails us. Since plain exercise can be pretty dull, an increasingly popular way to keep fit, especially among women, is "aerobic dancing." All across the country classes are full of people leaping, kicking, and twirling to the sounds of fast music.

Not everyone, of course, is stirred by the same music. For those who shun disco and abhor rock, London Records has released a classical-music exercise album called "The Clas-



Vladimir Horowitz has been a pre-eminent figure in the pianistic world for more years than most of us can remember, but something of an air of mystery still clings to the man, and that is probably not unintentional. In January of next year William Morrow will publish the first

disc "Aerobic Woman" (AER 1000, \$8.98). With it you can do your dancercises to the beat of Bizet (*The Toreador's Song*), Bach (*Brandenburg No. 3*), Brahms (*Hungarian Dance No. 5*), Mozart (*Piano Concerto No. 21*), Rossini (*The Thieving Magpie*), Tchaikovsky (*Sleeping Beauty, Waltz of the Flowers, Piano Concerto No. 1*), and seven other classical composers. Each side of the disc has

full-length biography of Mr. Horowitz, by Glenn Plaskin, who spent over three years and approximately \$80,000 in doing the job and doing it right. It was written without the cooperation of the pianist. It will be a large book that deals with both Horowitz's professional and personal life, and it is based not only on written sources but on interviews with hundreds of people who know or have known Horowitz. It will contain an exhaustive discography, the first full history of his recording activities to be published. But the book is not intended just for record collectors, for Horowitz, as an international personality, makes a fascinating study, and Plaskin has taken pains to document the sources of his information. "I don't think it will be a flop," says the author, who is not given to overstatement, "because it's interesting and it's true." □

the same thirty minutes of music—excerpts from recordings in the London Stereo Treasury catalog—but side one has voice-over narration giving instructions for appropriate dancing and exercises. Included with the disc is a twenty-four-page booklet with illustrated descriptions of aerobic dancing and essays by authorities on health and beauty care. The record industry is diversifying. □

Disc and Tape Reviews

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

Ⓢ = stereo cassette

Ⓢ = eight-track stereo cartridge

Ⓢ = digital-master recording

Ⓢ = direct-to-disc

Ⓢ = quadrasonic disc

Ⓢ = monophonic recording

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

RECORDING OF SPECIAL MERIT

BEETHOVEN: Cello Sonatas, Op. 5, No. 1, in F Major, and No. 2, in G Minor. Yo-Yo Ma (cello); Emanuel Ax (piano). CBS Ⓢ IM 37251, © HMT 37251, no list price.

Performance: **Exquisite**
Recording: **Realistic**

Although Emanuel Ax and Yo-Yo Ma have been performing together for some time, both as a duo and as a trio with violinist Young-Uck Kim, I believe this is their first recording together. As always, they both play very beautifully—the term "poetic" is never very far from one's mind—and their teamwork is quite exceptional. Their somewhat restrained approach makes for an ex-

quisite realization of the F Major Sonata. It is absolutely free of bluster, is distinguished by some breathtaking soft passages in the two adagio sections, and shows no want of either vigor or elegance in the two fast ones.

The performance of the G Minor may be less immediately fetching, but it is the kind that seems more attractive with repeated hearings. In the unhurried first movement the apparent restraint is actually a tightly controlled intensity that conveys the nobility of this work with remarkable subtlety and allows the ensuing rondo to make its contrasting point without ever being in danger of tumbling into raucousness. In other words, as in many really memorable performances, the logic of the unusual opening

becomes abundantly and convincingly clear in the conclusion. As Peter Eliot Stone points out in his annotation, the cello is well on its way toward equality in these works, but they are still essentially piano sonatas with cello accompaniment, and that is how they come across in the realistically balanced recording, which does full justice to both performers—and to Beethoven. *R.F.*

RECORDING OF SPECIAL MERIT

BLISS: Piano Concerto, Op. 58; March in Honour of a Great Man, Op. 99; Welcome the Queen. Philip Fowke (piano); Royal Liverpool Philharmonic Orchestra, David Atherton cond. UNICORN-KANCHANA Ⓢ DKP 9006 \$11.98 (from Euroclass Record



Darvin/Frank Salomon Assoc.

Clarinetist Richard Stoltzman

Stoltzman's Superb Brahms

Distributors, Ltd., 155 Avenue of the Americas, New York, N.Y. 10013).

Performance: **Brilliant**
Recording: **Very fine**

Sir Arthur Bliss (1891-1975) began his composing career right after World War I as one of Britain's musical iconoclasts, but he eventually became a romantic neo-Classicalist and in 1953 was appointed Master of the Queen's Musick. His neo-Lisztian Piano Concerto was Britain's major musical contribution to the New York World's Fair of 1939, being premiered there by Solomon with Sir Adrian Boult and the New York Philharmonic. Solomon subsequently recorded the concerto with Boult and the Liverpool Philharmonic.

The present disc marks the concerto's third LP recording, and it is by far the most effective. Philip Fowke is a new name to me, but the exuberant virtuosity he brings to the outer movements and his intensely expressive phrasing in the bittersweet slow movement tell me that we should be hearing much more of him in the coming years. David Atherton, a top interpreter of contemporary music and now principal conductor of the Liverpool Philharmonic, backs up his soloist every inch of the way. He elicits from his orchestra the verve and rhythmic propulsion that are essential for any satisfying performance of the Bliss concerto, since except for the slow movement, the work depends more on elemental drive and pulse than melodic substance.

The two occasional pieces that fill out the disc—one written for the 1965 state funeral of Winston Churchill, the other for the ceremonial return of the Queen from her 1954 Commonwealth tour—are splendidly effective and beautifully crafted, and again we get first-rate performances here. The digi-

It is the flute and not the clarinet that has the glamorous solo status among the winds these days. But if a latter-day Benny Goodman or a clarinetist equivalent to Jean-Pierre Rampal or James Galway has not yet appeared, the instrument has nevertheless a superb exponent in Richard Stoltzman. His admirable qualities are much in evidence on his new RCA digital recording of the Brahms clarinet sonatas with pianist Richard Goode.

Brahms wrote a lot of clarinet music toward the end of his life for another Richard—Richard Mühlfeld. The two sonatas of Op. 120 are—after the opening movement of the first—surprisingly gentle, good-tempered, and (for Brahms) outgoing. Stoltzman's performances, ably supported by Goode, are on the lyrical side. There's no great show of performer personality or passion, but the tone is exquisite, the phrasing set out in an even, stately, golden flow. Beautifully recorded too. —Eric Salzman

BRAHMS: Clarinet Sonata in F Minor, Op. 120, No. 1; Clarinet Sonata in E-flat Major, Op. 120, No. 2. Richard Stoltzman (clarinet); Richard Goode (piano). RCA ARC1-4246 \$12.98, © ARE1-4246 \$12.98.

tally mastered recording is tops throughout. The microphone setup seems slightly close, but not uncomfortably so. D.H.

BRITTEN: String Quartets Nos. 2 and 3 (see Best of the Month, page 54)

CHOPIN: Ballade No. 1, in G Minor, Op. 23; Sonata No. 2, in B-flat Minor, Op. 35; Mazurka in C Major, Op. 56, No. 2; Étude in A-flat Major, Op. 25, No. 1; Étude in A Minor, Op. 25, No. 11; Nocturne in E Major, Op. 62, No. 2; Scherzo No. 1, in B Minor, Op. 20. Jakob Gimpel (piano). PELICAN LP 2018 \$8.98.

Performance: **Unusual**
Recording: **Live, not great**

This recording was made in 1978 during a concert at Ambassador College in Los Angeles, where Jakob Gimpel lives and teaches. If I say that the playing is often sloppy and the recording not particularly remarkable you will probably conclude that I don't like it. But I do. Gimpel is a vital and spontaneous musician, and these are exciting and very live performances full of character and feeling for the music. Even his more unusual interpretive decisions—for example, playing the middle section of the Funeral March in the Second Sonata as if it were Mozart—are quite convincing. Gimpel likes fast tempos and in the big ballade and the sonata he is a bit shy of all the notes, but he never loses the thread for a second. The shorter, though not much less demanding, works on side two are by and large up to the mark—even quite spectacular. It is not for spectacular playing that one should listen to this recording, though, but for the quality of the feeling. It is very Chopinesque and in the best old tradition of personal, compelling music making. E.S.

DAVIES: Ave Maris Stella. The Fires of London. *Tenebrae Super Gesualdo.* Mary Thomas (soprano); Timothy Walker (guitar); the Fires of London, Peter Maxwell Davies cond. UNICORN-KANCHANA KP 8002 \$11.98 (from Euroclass Distributors, 155 Avenue of the Americas, New York, N.Y. 10013).

DAVIES: Renaissance and Baroque Realizations. J. S. Bach: *The Well-Tempered Clavier, Book I: Preludes and Fugues in C-sharp Minor and C-sharp Major.* Purcell: *Fantasia upon One Note; Fantasia and Two Pavans.* Dunstable: *Veni Sancte/Veni Sancte Spiritus; Three Early Scottish Motets.* Kinloch: *Fantassie.* The Fires of London, Peter Maxwell Davies cond. UNICORN-KANCHANA KP 8005 \$11.98 (from Euroclass Distributors, 155 Avenue of the Americas, New York, N.Y. 10013).

Performances: **Superb**
Recordings: **Excellent**

There are some personal and even artistic connections between myself and Peter Maxwell Davies, the English composer. We were born on the same day one year apart, studied together in Italy (also at Princeton in this country although not at the same time), and both upset a few appalcarts in the Sixties by introducing vulgar popular music into a so-called "avant-garde style."

These any resemblances end; our paths diverged. Davies is really a kind of mystic whose contemplations of earthly and spiritual landscapes—he lives in a restored croft in the remote Orkney Islands—are special. Stephen Pruslin, the keyboard player of the Fires of London and the annotator for these albums, compares Davies' *Ave Maris Stella* to late quartets of Beethoven, a comparison that is not particularly apt (except that this is also contemplative and difficult music) and is likely to set up false expectations. But heard in its own right, this is music of great precision and beauty. The *Tenebrae Super Gesualdo* is a set of meditations on the music of Don Carlo Gesualdo, and some actual fragments of Gesualdo appear between the movements, but the genre is really the same: pure Max Davies.

The "realizations" on the other disc are, however, a bit different—and certainly not very pure. These were composed as curtain raisers for the concerts of the Fires and are in some ways similar to the arrangements that Charles Wuorinen and others have made for the concerts of the Group for Contemporary Music at Columbia University and Manhattan School of Music. Some of Davies' pieces in this line are sedate and close to the originals. Others range quite a bit in orchestration and musical substance—sometimes raucously and outrageously so. The two Purcell pavans are turned into hilarious foxtrots, and some of the pennywhistle effects in one of the Purcell fantasias are equally shocking. When Davies breaks his meditative air of calm, he likes to raise a bit of a row—a dreadful noise unto the Lord, you might say. Well, love it or leave it; it is special stuff, and it is well played and recorded here. E.S.

DEBUSSY: Chansons de Bilitis; Ariettes Oubliées (see FAURÉ)

RECORDING OF SPECIAL MERIT

DELIUS: *Appalachia (Variations on an Old Slave Song); Sea Drift.* John Shirley-Quirk (baritone); London Symphony Chorus; Royal Philharmonic Orchestra, Richard Hickox cond. ARGO ZRG 934 \$10.98.

Performance: **A joy**
Recording: **First-rate**

Despite its given 1902 date, *Appalachia* was completed in an earlier version seven years earlier. It represents the quintessence of Delius' Florida sojourn and his memories of black singing. Conductor Richard Hickox, who is chorus master of the London Symphony Chorus, manages to take some of the sprawl out of the piece without in any way diluting its poetic expression. The wordless offstage choral episodes at the ends of Variations Nos. 3 and 4 are utter magic here, and the true climax of the performance comes with the *a cappella* chorale "After night has gone . . ." followed by the brief and gripping solo "O Honey, I am going down the river . . ." sung by John Shirley-Quirk rather than a chorus member as on previous recordings. Shirley-Quirk shines even more in *Sea Drift*—a setting of the *Once Paumanok* section of Walt Whitman's *Out of the Cradle Endlessly Rocking*—for he is stage front and center most of the time, with the chorus setting the mood and adding commentary. He conveys more effectively and with more tonal beauty than any other soloist on record the aching sense of loss that follows the choral outburst "O darkness! O in vain!"

Hickox elicits superb playing from the Royal Philharmonic throughout both sides, and the choral-orchestral balances are remarkably just. The soloist is spotlighted to some degree, but not uncomfortably so. My only complaint about this release concerns the rather skimpy notes. Except for Beecham's still incomparable pre-stereo interpretation on *Odyssey*, Hickox has no real current competition in these two works. If you are coming to Delius for the first time, this disc is a must; if you know his music well, it's still a record well worth adding to the excellent realizations of these masterpieces that have come before. *D.H.*

DELIUS: *String Quartet (see SIBELIUS)*

ELGAR: *Minuet, Op. 21; May Song; Rosemary; Romance for Bassoon and Orchestra, Op. 62; Sevillana, Op. 7; Mazurka, Op. 10, No. 1; Sérénade Mauresque, Op. 10, No. 2; Contrasts—The Gavotte A.D. 1700 and 1900, Op. 10, No. 3; Sérénade Lyrique; Carrissima; Mina.* Michael Chapman (bassoon, in *Romance*); Northern Sinfonia Orchestra, Neville Marriner cond. MUSICAL HERITAGE SOCIETY MHS 4459 \$7.75 (plus \$1.60 shipping and handling charge from the Musical Heritage Society, 14 Park Road, Tinton Falls, N.J. 07724).

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

This record is entitled "The Lighter Elgar," and one would have to be approaching terminal Anglophilia to see it as more than a collection of Victorian and Edwardian trifles. Nevertheless, Elgar's most productive years coincided with a time when a serious composer could also turn out light music



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without fear of losing esteem, and Elgar certainly had a talent for it. The pieces are of varied degrees of time-faded elegance, but they are all put together with consummate skill and no little invention. Actually, what is *most* interesting here is the feeling of real invention—not the filling out of forms or the watering down of more serious ideas or the dressing up of folk material—that goes on in virtually all these works. The tunes are Elgar's own, and they command interest the way tunes have to be good. The harmonies are conservative but apt. The orchestration, for the most part, is also conservative but effective. And so, despite occasional echoes and pre-echoes of more serious pieces, this is a disc of old-fashioned charm without an important thing to say. It is very well played and recorded, but it is special. If you happen to have seen, some months ago, a telecast dramatization of Frances Hodgson Burnett's *Little Lord Fauntleroy* and enjoyed that, you will enjoy this. That ought to give you some idea.

—James Goodfriend

FAURÉ: *La Bonne Chanson*. DEBUSSY: *Chansons de Bilitis; Ariettes Oubliées*. Elly Ameling (soprano); Dalton Baldwin (piano). CBS ~~CX~~ M 37210, no list price.

Performance: **Sweet but bland**
Recording: **Not compatible**

Fauré's *La Bonne Chanson* is arguably the greatest French song cycle, perhaps the only one to compare in both quality and scope with those of Schubert and Schu-

mann. If, however, one is *going* to argue, then two of the other major contenders for that title are the briefer cycles by Debussy also included here. This disc, then, may be said to offer the cream of the repertoire. The three cycles have been recorded a fair number of times through the years (by no means as often as the Schubert and Schumann ones, though), but my personal standards for recorded performances have been, since I first heard them, the London records by the Belgian soprano Suzanne Danco. These are, alas, gone from the catalog.

Elly Ameling's performances here are to Danco's pretty much what her performances of lieder are to Schwarzkopf's; she is simply a far more understated and retiring singer than either of those predecessors. Contrary to what one might think, however, her coolness works *less* well in the French repertoire than in the German. Perhaps it is because there is less pure lyrical melody to fasten onto here, perhaps because the poetry itself departs much farther from folk-inspired lyrics and ballads and the feelings to be expressed are, if not always deeper, invariably more complex and changeable. At any rate, I find these performances lacking in tension and ecstasy as well as in atmosphere, rather like a torrid love story read aloud by a charming but very proper middle-aged lady. One could live with these performances without ever knowing what one was missing, but it would be a pity.

The recording, which, if you stare very hard at the lower right corner of the jacket back, you will find has been CX-encoded,

has some very peculiar characteristics in normal (non-CX) playback. It sounds compressed and aids neither the singer nor the pianist, who seem at times to be working in two different acoustical surrounds and even at times to be competing with each other rather than collaborating. With the use of a CX decoder this illusion vanishes and the recording opens up into a perfectly natural and acceptable overall sound and balance. It would seem, in the case of this record at least, that the "compatibility" of the CX encoding system is a figment of someone's imagination. Texts are supplied in three languages.

—James Goodfriend

RECORDING OF SPECIAL MERIT

FAURÉ: *Dolly, Suite for Piano Four Hands, Op. 56; Ballade, Op. 19* (arranged for two pianos). *Nocturnes: No. 4, in E-flat Major, Op. 36; No. 6, in D-flat Major, Op. 63; No. 7, in C-sharp Minor, Op. 74*. Magda Tagliaferro, Daniel Varsano (pianos). CBS ~~CX~~ M 37246, no list price.

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

This record won a Grand Prix du Disque in France. The French musical public will understand that without explanation and will also be aware of the rather special circumstances of this disc. But what of the American public? There is hardly a word on the jacket to explain who Magda Tagliaferro is, nor is there anything about Daniel Varsano

(Continued on page 66)

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EVER since Advent demonstrated, back in 1974, that the prerecorded tape cassette did not have to be the gimcrack, sonically inferior medium that most companies then made it out to be, there has been considerable interest—and competition—in finding out just how good a cassette can get. New kinds of tape and other technological developments have played a part in upgrading the cassette as a medium for music, but a great deal of the vast improvement has come from interested parties taking fanatical pains at every step of the duplicating process. Even those companies that still don't care a rap can and do produce passable cassettes today, and the ones who *do* care should be collectively proud of what is, really, a spectacular achievement. If one posits as the goal a cassette that sounds as good as the best discs, but without their inherent drawbacks, the goal has been achieved.

The four cassettes that are the first releases in Desmar's new "Sound Research Series" are on a level with the best of the Connoisseur Society/In Sync cassettes, which is to say that they are, with some others, the best analog cassettes on the market—and maybe the best analog cassettes that *can* be made. They are duplicated in real time on chromium-dioxide tape, are free of compression or limiting of any sort, and have a claimed frequency response of 20 to 20,000 Hz \pm 1.5 dB. They employ Dolby noise reduction and are, I believe, the first commercially produced cassettes to be offered in Dolby-B or Dolby-C. I find the Dolby-B cassettes virtually noiseless; the Dolby-Cs, if you have the necessary playback facility, are even better. The price is the same: \$17.98.

It is, of course, a truism that no cassette (or disc) can be better than the original recording, and in even the best cassettes made from older masters, you can still hear a faint wisp of hiss where there is no music. Such is the case here with Desmar's new Leopold Stokowski and Richard Stoltzman cassettes, but I must emphasize that you have to concentrate your full attention on the hiss to hear it. If your object is to listen to the music, you won't hear the noise. You *may* also hear on any of these tapes, in certain wide-open places, a bit of print-through pre-echo, but that too is negligible. What you *won't* hear, of course, is record-surface noise, pressing defects, groove wear, or restricted frequency or dynamic range, no matter how many times you play the cassette. A stronger argument for the medium has rarely been made.

Musically too the Desmar cassettes are top-drawer. The Stokowski performances, which I rather enjoyed when they first appeared on records in 1976, become more compelling to me the more I listen to them. Stoltzman's little recital is a collection of rather oddball delights, few of which fall with repeated hearings, and the playing is really fine. Richard Goode is a pianist I have not particularly admired in the past, but his Schubert performances here, especially of the big sonatas, are truly excellent. Yes, there are pianists who can do more with them, but Goode's clear-cut approach misses neither the drama nor the humor,

and Schubert's lyricism can take care of itself. The piano sound is excellent, and it emerges, for the most part, from dead silence. (The advantage of Dolby-C processing, by the way, is that it extends the noise reduction further down in the frequency range and offers an additional 10 dB of quieting. I hear no *disadvantages* with proper playback, but my own deck handles only Dolby-B, and I feel no pressing need to upgrade.)

The Desmar cassettes are produced in limited editions of five hundred, and they are guaranteed against defects. Program notes are not included, but there is a coupon in each box that you can send off to get a free set.

SOME superb cassettes were also released recently by the American Artists Group, Inc. (AAG) under the series names "trans-Analog" and "interDigital" (depending on whether the master was analog or digital). These too are duplicated in real time on

How Good Are Today's Classical Cassettes?

chromium-dioxide tape with Dolby-B (but not Dolby-C) noise reduction. The repertoire has been drawn from several different record labels, and to more conservative listeners it will seem distinctly adventurous. I have to tell you, though, that the New England hymns on "Vermont Harmony" sound positively gorgeous, and so do the original-instruments performances of the Haydn piano trios. I like the performance and (digital) recording of the Ives *Concord* Sonata only slightly less.

I continue to have reservations about John Gibbons' version of Bach's *Goldberg* Variations, both performance and recording, but others may feel differently. In any case, the transfer has been done well. And it is startling to hear so well recorded the kind of blues material that Johnny Shines purveys. It is multimiked in pop style, to be sure, but the sound quality is vastly superior to that of the usual blues disc.

The AAG cassettes are packaged in the standard plastic box, but that box is inserted in a cleverly designed cardboard box, measuring 6 1/2 x 4 1/4 inches, that has space for cover art and liner notes. These packages take up more space than the usual cassette, to be sure, but they fit conveniently and findably on a bookshelf. The AAG cassettes are available in record stores.

More-expected repertoire for sound buffs comes from Mobile Fidelity with their release of Holst's *Planets* from the Decca/London master by Sir Georg Solti and the London Philharmonic. The specs and production methods are the same as for the Desmar and AAG cassettes, but for some reason Mobile Fidelity has decided to claim precedence for all these qualities. It's not that I don't like their work. The transfer is well done, the sound is exceedingly good, the hiss level is virtually inaudible. It's a good product; it's just not the only game in town, and certainly not the first. No notes included or offered. —James Goodfriend

VAUGHAN WILLIAMS: *Fantasia on a Theme by Thomas Tallis*. **DVORAK:** *Serenade for Strings in E Major, Op. 22*. **PURCELL/STOKOWSKI:** *Dido's Lament*. Royal Philharmonic Orchestra, Leopold Stokowski cond. DESMAR © SRB 5011 \$17.98 (plus \$1.50 per order postage and handling charge from Euroclass Distributors, Inc., 155 Avenue of the Americas, New York, N.Y. 10013. Specify Dolby-B or Dolby-C processing).

SAINT-SAËNS: *Clarinet Sonata*. **HONEGGER:** *Sonatine for Clarinet and Piano*. **POULENC:** *Clarinet Sonata*. **DEBUSSY:** *Petite Pièce for Clarinet and Piano; La Fille aux Cheveux de Lin*. Richard Stoltzman (clarinet); Irma Vallecillo (piano). DESMAR © SRB 5014 \$17.98.

SCHUBERT: *Piano Sonata in A Major, Op. posth. (D. 959); Klavierstück No. 1 (D. 946)*. Richard Goode (piano). DESMAR © SRB 6001 \$17.98.

SCHUBERT: *Piano Sonata in B-flat Major, Op. posth. (D. 960); Allegretto (D. 915); Impromptu No. 2 (D. 935)*. Richard Goode (piano). DESMAR © SRB 6002 \$17.98.

HAYDN: *Piano Trios in E-flat Major (Hob. XV:29), G Minor (Hob. XV:19), and C Major (Hob. XV:27)*. Amadé Trio. AAG/TRANSANALOG A001 \$18.

IVES: *Piano Sonata No. 2 ("Concord, Mass., 1840-60")*. Irma Vallecillo (piano); Michael Parloff (flute). AAG/INTERDIGITAL D001 \$18.

VERMONT HARMONY. Ingalls: *Love Divine; Christian Song; Falmouth; New Jerusalem*; and seven others. Moors: *Cavendish; Charlotte; Dorset; Plainfield*; and eight others. Choral Union of the University of Vermont, James Chapman cond. AAG/TRANSANALOG A002 \$18.

JOHNNY SHINES: *Too Wet to Plow*. Johnny Shines (vocals, guitar); Louisiana Red (guitar, harmonica); Sugar Blue (harmonica); Ron Rault (bass). *Too Wet to Plow; Travelling Back Home; Hot Tomale; Moanin' the Blues*; and eight others. AAG/TRANSANALOG A004 \$18.

J. S. BACH: *Goldberg Variations (BWV 988)*. John Gibbons (harpsichord). AAG/TRANSANALOG AX01 \$25.

HOLST: *The Planets*. London Philharmonic Orchestra and Women's Chorus, Sir Georg Solti cond. MOBILE FIDELITY SOUND LAB © C-510, no list price.

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(though his name may be familiar enough from his recent recordings of Bach, Beethoven, and Satie, which were immodestly hyped to the gills). It used to amaze me that sophisticated and specialized albums were dropped on the market with nary a word of informative promotion and left to chance and word of mouth to keep them afloat. It no longer amazes me; it's just the record business.

Tagliaferro is a Brazilian-born, quintessentially French pianist who is somewhere around ninety years old. A brief note by her on the jacket referring to the concert tour she embarked on with Gabriel Fauré when she was fifteen gives the only clue here to her background and her quality. She also, sometime before 1936, recorded Fauré's *Ballade* with Piero Coppola conducting, Mozart's *Coronation* Concerto with Reynaldo Hahn conducting, and solo works by Fauré, Debussy, and Schumann. Much later she made LPs of solo French and Spanish music for French labels that were not distributed here. A couple of years ago she played a recital at Carnegie Hall that made a lot of people's eyes pop out of their heads. With her flaming red hair and blue eye shadow she is something of a character. She is also a very great pianist.

Varsano is a Frenchman in his late twenties who has studied with some great pianists, among them Tagliaferro. He is not a great pianist, though he has a considerable following among the younger French who don't know the difference. The best playing I have heard him do is on this record.

Fauré's *Dolly*, written for and named after the young daughter of the singer Emma Bardac, later Mme. Debussy, is here given an exquisite performance in its original piano-duet version. It is a piece that often suffers from blandness, but not here, where all the subtleties of carving are caressed and the pianists are not afraid to punch out a melody where it seems correct. The *Ballade* is a special case. This is a work of some complexity for piano and orchestra, and no

amount of ingenuity in transcription (it was done by Isidore Philipp) can turn it into an idiomatic piece for two pianos. It is here in that form because Tagliaferro played it that way with Fauré himself (on that aforementioned concert tour). It takes a certain adjustment of sensibility to listen to it because Tagliaferro, quite naturally, does not hold back and gives a big, sweeping, beautifully articulated performance while Varsano is left trying to imitate bowed and plucked strings.

Varsano gives a solo performance of the Nocturne No. 7, and he plays it very well indeed, with power and a certain aggressiveness. Tagliaferro plays Nos. 4 and 6, and the difference between her playing and Varsano's is that of night and day. I could talk about balance, different weights and colors among simultaneous tones, rhythmic elasticity, and so on, but the net result of all her abilities is perfect and disarming simplicity with a kind of shimmering aura of magic over the whole thing. I heard her do that at Carnegie Hall too, and I think that this is what great piano playing—or one kind of it, at least—is all about. They ought to turn on the tape recorders for this woman and leave them on until she's played every piece she knows.

The digitally mastered sound here is perfectly reasonable, with good dynamic range. At least one of the pianos has a small pedal problem.

—James Goodfriend

RECORDING OF SPECIAL MERIT

FENNELLY: *In Wildness Is the Preservation of the World*. Czech State Radio Orchestra, Eduard Fischer cond. *Sonata Seria*; *Empirical Rag*. John Cobb (piano). SERENUS SRS 12094 \$6.98.

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

This disc was my first exposure to the work of Brian Fennelly (b. 1937), and I find in it an absolute command of craft and content

together with the all-important element of creative synthesis. All three works on the record tend to confirm the current trend in contemporary music toward an amalgamation of the avant-garde techniques of the Fifties through Seventies with the mainstream tradition. The result here is a combination of taut discipline with remarkable flexibility.

The Thoreau-inspired *In Wildness* . . . (1974-1975) contains elements of programmatic evocation—bird calls, storm sounds, etc.—but the structural underpinning is rigorous without being rigid. The language reminds me of the Norwegian master Fartein Valen, particularly the open textures and widely spaced counterpoint in a free-tonal setting. There is a marvelously sensitive use of a very large orchestra with rich and highly varied coloration, especially in the percussion. The Czech players deliver a thoroughly convincing account of the score and are accorded generally excellent sonics.

John Cobb, a specialist in contemporary piano music who is associated with Ralph Shapely's Contemporary Chamber Players, does a fine job with the *Sonata Seria* (1976) and the *Empirical Rag* (1977). The former is tough-grained stuff, functioning as both a dramatic sequence of musical events associated with the mainstream sonata tradition and as post-Webernian canonic permutation of materials. The effect is certainly not coldly intellectual; the intervallic structures adhered to throughout lend the piece both coherence and power. Diatonic and modal harmonic textures are evident in the *Empirical Rag*, the middle section of which is something of a paraphrase of the final pages of the Mahler *Resurrection* Symphony! It is a clever and highly entertaining piece written for the Empire Brass Quintet and later rescored for a variety of instrumentations including solo piano. The sound again is first-rate. I recommend this disc for anyone interested in hearing some of the best work in contemporary music.

D.H.

RECORDING OF SPECIAL MERIT

FRANCK: *Piano Quintet in F Minor*. **WOLF:** *Italian Serenade*. Jorge Bolet (piano, in Franck); Juilliard Quartet. CBS M 36701, © HMT 36701, no list price.

Performance: **Superb**
Recording: **Fine**

For the most part, Jorge Bolet's all-too-infrequent appearances on records have presented him, either alone or with orchestra, in music of Liszt—a repertoire in which, to be sure, he has few peers, but one that tends to typecast him rather unfairly. The splendid uncut performance of the Tchaikovsky trio he recorded with violinist Victor Martin and cellist Marco Scano (Musical Heritage Society MHS 1643) suggests that he must love to play chamber music; this new one of the Franck Quintet with the Juilliard goes perhaps even further in making a case for another generally neglected large-scale chamber work by a composer more readily identified with other categories of music. The music's "emotionalism . . . dramatic intensity, theatrical vitality and sense of tragedy" cited in Cecelia Porter's annotation may be a bit less conspicuous here than in the recent recording by the Quartetto

Accademico with John Buttrick (Dynamic DS 4012), but listeners who find that performance a little too steamy (it seems to begin at a point of climax and go on building from there) may well find this one more judiciously balanced, making Franck's emotional points without overpowering the music. There is no want of ardor, certainly, or of fine teamwork; this could be the performance to make people unacquainted with the quintet wonder why it hasn't always been one of the most popular items in the chamber-music repertoire. (Now if Polygram would only bring over the Fitzwilliam's marvelous recording of the Franck string quartet on L'Oiseau-Lyre!)

Wolf's enchanting *Italian Serenade* is a neat foil for the Franck, somewhat mellow-er here than in an earlier Juilliard version on RCA (actually played by leader Robert Mann and three different associates). Both the recorded sound and the pressing are unobtrusively fine. R.F.

RECORDING OF SPECIAL MERIT

LOEWE: *Four Historical Ballads, Op. 99; Gregor auf dem Stein, Legend in Five Parts, Op. 38.* Roland Hermann (baritone); Geoffrey Parsons (piano). CLAVES D 8106 \$11.98 (from Brilly Imports, 155 North San Vicente Boulevard, Beverly Hills, Calif. 90211).

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

Carl Loewe (1796-1869) was and is celebrated almost exclusively as a composer of ballads. In the Anglo-American tradition, the ballad is a song that tells a story, usually with a single tune repeated in many verses. This must also have been true in Germany once upon a time, but in the Romantic period composers got hold of this genre and tried to convert it into an art form. The balladic songs of Hiller, Schubert, and Robert Franz are, by and large, strophic in the folk tradition but already artful.

Loewe was even more ambitious. His four *Historische Balladen* about the Emperor Charles V are through-composed in an imaginary romantic knightly style, each made up of a string of dramatic, lyric, narrative, stately, and meditative episodes. Even more successful are the five ballads, with texts by Franz Kugler, on the medieval legend of Gregor, a young fellow who, like Oedipus, managed to marry his mother but, unlike his illustrious predecessor, managed to live it down and become Pope! The telling of this story works up a lot of genuine musicodramatic power. Loewe, whose means are always the simplest and most direct, never compromises his fundamental commitment to tell a story in song. This is truly lyric narrative.

The kind of ballad that embraces elements of the old strophic folk song, the *Lied*, and dramatic declamation seems to have virtually died out after the Romantic period, and there is hardly any equivalent in either modern concert or pop music. I don't think Loewe is much performed even in German-speaking countries today. So this excellent Swiss recording is a real novelty. Roland Hermann, a baritone with the Zurich Opera House, is a fine singer, very much in the Fischer-Dieskau line, with a good feeling for this style. The Australian

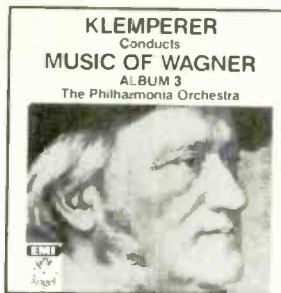
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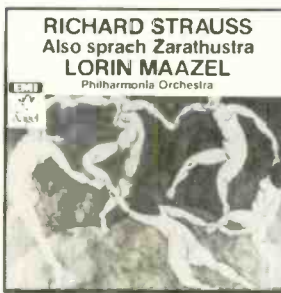
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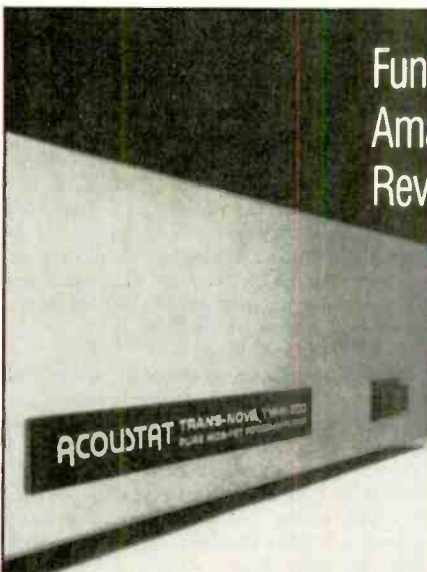


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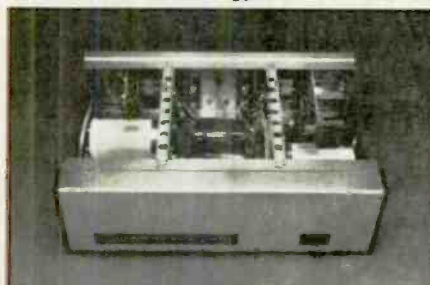
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The Music of Wordsworth

WILLIAM WORDSWORTH, a descendant of the great poet's brother, is a British composer in his early seventies—looking hale and hearty in the photographs on his new CRD album—whose music is all but unknown on this side of the Atlantic and, I would guess, not too well known on the other side either. This imported disc containing his Fifth and Sixth Quartets and three songs on texts by the more famous William Wordsworth is only the second record of his music that I have seen in many years of looking, and it took the financial assistance of the Scottish Arts Council to produce it. To say that this situation is a crying shame is to understate the case, for every week brings to my desk a dozen records that will be forgotten in another week and a dozen more that were mistakes from their inception. Someone some day will do a study on the reasons particular composers and particular pieces get recorded while others don't and will find, I'm sure, that "quality" is down near the bottom of the list.

I have never met Wordsworth, but he strikes me, for several reasons, as being the sort of man who does what he does and lets the rest of the world go by. What he does is write very fine, impressive, and eminently listenable music. He works in a vein of expanded tonality, creates arresting thematic ideas, and is quite capable of producing passages of extraordinary beauty which do not at all sound like he is quoting someone else. Perhaps what emerges most strikingly from his work is a sense of inner logic and assurance, a feeling that the music is growing naturally by itself and is not being manipulated by outside theories or, conversely, left to purely pragmatic decisions or to chance.

That feeling is so intense generally that the moments when it is *not* present—the introduction of the second subject in the first movement of the Quartet No. 5, and the false endings of the last movement—stick out like sore thumbs.

Still, it is wonderful to hear a work that confidently proclaims itself "mostly masterpiece." The Sixth Quartet is not as *immediately* attractive, but the inner logic is there too and makes itself felt. The songs are quite beautiful as music, but I have my doubts that they are totally successful as songs (*On Calais Beach* has to make it on points, though). Despite his heritage, Wordsworth does not seem to be completely at ease with word setting.

THE Alberni Quartet, whose Schubert and Schumann recordings have been acclaimed in these pages before and whose new Britten recording is reviewed in "Best of the Month" on page 54, is a first-rate ensemble and plays Wordsworth's pieces with obvious love and respect. In the songs, Ian Partridge sounds a bit disembodied, rather like (very like) Sir Peter Pears; a little more earthiness would have helped, I think. The recording is excellent. —James Goodfriend

WORDSWORTH: *String Quartet No. 5, in G Minor, Op. 63; String Quartet No. 6, Op. 75.* Alberni String Quartet. **Three Wordsworth Songs for High Voice and String Quartet, Op. 45 (*Westminster Bridge, Daffodils, On Calais Beach*).** Ian Partridge (tenor); Alberni String Quartet. CRD 1097 \$10.98 (from Qualiton Records, Ltd., 39-28 Crescent Street, Long Island City, N.Y. 11101).

pianist Geoffrey Parsons is an excellent partner, and the recording is sturdy. Texts but no translations are supplied. *E.S.*

RECORDING OF SPECIAL MERIT

MARTINŮ: *String Quartet No. 5; Concerto da Camera (String Quartet No. 7).* Panocha Quartet. SUPRAPHON 1111 2675G \$9.98 (from Qualiton Records, Ltd., 39-28 Crescent Street, Long Island City, N.Y. 11101).

Performance: **Excellent**

Recording: **Excellent**

Now that Supraphon has given us new recordings of all six of Martinů's symphonies and numerous other works in its project of recording all this composer's music, attention is turned to the string quartets, all seven of which are to be recorded by the Panocha Quartet. I cannot imagine a happier or more apt beginning for such an undertaking than the Quartet No. 5, a work composed in the same year (1938) as the Double Concerto for Two String Orchestras, Piano, and Timpani, which Martinů regarded as his most significant composition. The quartet may not have the same degree of intensity and urgency as the Double Concerto, but much of it is in a quite similar vein; in its own right it is compelling, provocative, and an extremely successful matching of substance and medium. The Seventh Quartet, composed in 1947, falls between the last two symphonies, when Martinů was returning to Europe after his productive wartime sojourn in America. He called it a *Concerto da Camera (Chamber Concerto)*, a title reflecting the neo-Classical style he had adopted at that time; it is an engaging, attractive work, but clearly below the level of the Fifth. Both works are given extremely persuasive performances by the fine young ensemble, and both the sonics and the pressing are well up to Supraphon's high current standard. Recommended. *R.F.*

RECORDING OF SPECIAL MERIT

MUSSORGSKY: *Salammbô.* Ludmila Shemchuk (soprano), Salammbô; Gheorgi Seleznev (baritone), Mathô; William Stone (baritone), Balearic Islander, Spendius, Aminachar; Giorgio Surjan (bass), First Priest; others. Orchestra Sinfonica e Coro di Milano della Radiotelevisione Italiana, Zoltán Peskó cond. CBS M2 36939 two discs, no list price.

Performance: **Good**

Recording: **Somewhat ill-balanced**

To the best of my knowledge, there is no such thing as a Mussorgsky opera that was seen through from start to finish by that inspired but congenitally untidy and self-destructive genius. The heroic conflicts and flaming passions of Flaubert's novel *Salammbô* fascinated Mussorgsky early in his life, but he was unable to build a cohesive drama out of the materials that caught his fancy. Altogether, he seems to have completed only six extended scenes of what had been conceived as a four-act epic, and he orchestrated only three of the six. Eventually he abandoned the project and later incorporated some of the *Salammbô* music into *Boris Godounov*. What we have in this album are the six completed scenes with the

composer's three original orchestrations revised and the rest newly orchestrated by the Hungarian conductor Zoltán Peskó. The recording was made at a concert performance in Milan on November 10, 1980.

As is often the case with Mussorgsky, we are dealing here with rough diamonds. The brilliance is there, but the sense of a total opera does not emerge from hearing these rather impressive chunks. The choral writing is powerful, and Salammô's music suggests the eroticism of the Polish episode in *Boris* as well as anticipating some of the Oriental languor Borodin was to infuse into the love music of his *Prince Igor*. There is a long and moving monologue for the bass-baritone hero Mathô that also foreshadows *Boris Godounov*. At the very least, the music makes for fascinating listening.

The parts of Salammô and Mathô are fiercely demanding, but the demands are satisfyingly met by this set's two lusty-voiced leads, a soprano from the Ukraine and a baritone from Soviet Georgia who are not otherwise known to me but who certainly deserve further exposure. William Stone, a lyric baritone who now sings major roles with the New York City Opera, also excels in his several supporting roles here, and the essence of Mussorgsky's powerful and passionate music is communicated with enthusiasm by the conductor and players.

Sonically, the set is less satisfying. The overall sound is vital enough, but the choral definition is diffuse and all the solo singers seem larger than life. There is no point in looking for flaws, however. Rough diamonds or no, *Salammô* deserves our attention, and CBS has given it an attractive presentation. *G.J.*

RODRIGO: *Concierto de Aranjuez; A la Busca del Más Allá; Zarabanda Lejana y Villancico.* Alfonso Moreno (guitar); London Symphony Orchestra, Enrique Bátiz cond. ANGEL DS-37876 \$10.98.

Performance: **Hot-blooded**
Recording: **Excellent**

Enrique Bátiz has the fire of Joaquín Rodrigo's music in his blood. His reading here of the familiar *Concierto de Aranjuez* is a match for any of its rivals in Schwann. Rodrigo wrote the concerto in 1939 when he was just thirty-six, and it justly remains his most popular work. The Spanish composer has also written other similarly distinguished pieces, but the ones that fill out this album are not among them.

A la Busca del Más Allá (In Search of the Beyond), a tone poem composed in 1976 that gets its world-première recording here, has all the ravishing color a master orchestrator could supply and at its best sounds like a Spanish counterpart of Delius' *Over the Hills and Far Away*. Alas, it is also a rather empty work, more rhetoric than substance. The Sarabande and Villancico (which also exists in a version for piano and orchestra) is a pretty thing dating back more than half a century, intriguing in its harmonies but also on the slight side. The playing throughout this disc is absolutely ravishing, however, and the digital sound is excellent. *P.K.*

ROSSINI: *Mosè.* József Gregor (bass), Moses; András Molnár (tenor), Elisero; Sándor Solyom-Nagy (baritone), Pharaoh;

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János B. Nagy (tenor), Aménofi; Ferenc Begányi (bass), Osiride; Eszter Póka (contralto), Maria; Magda Kalmár (soprano), Anaide; Attila Fülöp (tenor), Aufide; others. Hungarian Radio and Television Chorus; Hungarian State Opera Orchestra, Lamberto Gardelli cond. HUNGAROTON SLPX 12290/92 three discs \$29.94 (from Qualiton Records, Ltd., 39-28 Crescent Street, Long Island City, N.Y. 11101).

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

Rossini's *Mosè*, with its Biblical subject and broad canvas, is closer in spirit to the Baroque oratorio than to any other of his operas. Its few arias, though written in the vir-

tuosic style of the period (1818), are less significant in the total context than the vocal ensembles and choruses. The latter look ahead to *Guillaume Tell* as well as Verdi's *Nabucco* in their emotional content and eloquence. Even when theatrical effects intrude (the crescendo finale of Act III), there is no doubt that Rossini, the master of urbane comedy, treated his solemn subject with dignity and sincerity.

Lamberto Gardelli has been associated with the musical life of Hungary for more than twenty years and has been responsible for a number of striking operatic productions there. This recording of *Mosè* will serve to replace the opera's only previous one, a twenty-five-year-old Philips album

now unavailable. That strong and idiomatic performance, excitingly led by Tullio Serafin, had some excellent singers but a vocally threadbare protagonist. The Hungarian cast does not equal all of Serafin's stalwarts, but it does offer a strong Moses in József Gregor. He is a resonant vocalist with an impressive range and commendable tonal flexibility. Only certain idiosyncratic elements in his work—occasionally inexact attacks and an audible tonal variance in different registers—keep his portrayal below the level of excellence.

Julia Hamari, the only internationally known artist in this cast, brings a gleaming tone and fine technique to the role of the Pharaoh's humane and conciliatory wife, Sinaide (she has one of the score's few virtuosic arias). In the vocally less taxing role of the Pharaoh, baritone Sándor Sólyom-Nagy reaffirms the positive impression he made in earlier recordings. The high tessitura of Aménofi is quite treacherous; tenor János B. Nagy responds to its challenge with bravely flung clarion notes of little subtlety. The plot posits a sentimental attraction between Aménofi, the Pharaoh's son, and Anaide, the niece of Moses, that Rossini's librettists developed without any assistance from the Old Testament. Anaide should be sung by a dramatic soprano (as in the old Philips set); the music here overtaxes the otherwise attractive vocal resources of soprano Magda Kalmár. Basso Ferenc Begányi excels in the role of the High Priest; the other supporting singers are adequate. The cast's Italian pronunciation is praiseworthy.

Gardelli captures the opera's grandeur and dramatic sweep, drawing vital choral and orchestral performances from his forces. The edition he uses includes some important music omitted on the Philips set. On the other hand, the ballet music Rossini added for the opera's later (1827) Paris production is not included. The overall sound is rich but occasionally harsh, and voices are at times blanketed by the orchestra. The annotation, however, with the libretto in six languages, is exemplary. *G.J.*

A. SCARLATTI: *Twelve Sinfonie di Concerto Grosso*. William Bennett, Lenore Smith (flutes); Bernard Soustrot (trumpet); Hans Elhorst (oboe); 1 Musici. Philips ● 6769 066 two discs \$17.96, © 7654 066 \$17.96.

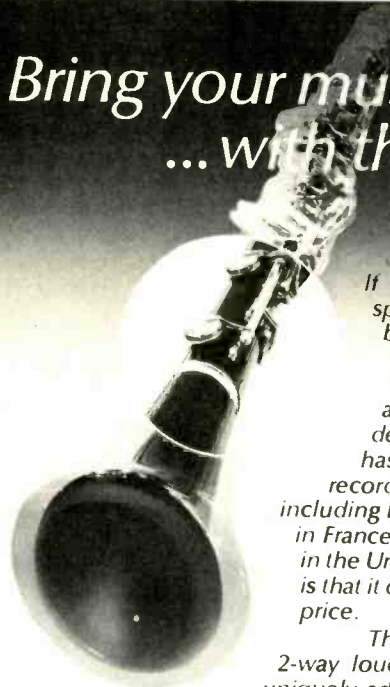
Performance: **Clean**
Recording: **Fine**

A. SCARLATTI: *Vespers of St. Cecilia*. Patricia Clark, Ursula Connors (sopranos); Shirley Minty (contralto); Ian Partridge (tenor); John Noble (baritone); Chorus and Orchestra of the Accademia Monteverdiana, Denis Stevens cond. NONESUCH H-71398 \$5.98, © H4-71398 \$5.98.

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

Never has a father been more unjustly overshadowed by a son! Not that Domenico Scarlatti should in any way be belittled, but his father is perhaps one of the most neglected geniuses of music. The reason is simple: it is far easier for a harpsichordist to play Domenico's sonatas than it is to gather together the forces required to perform Alessandro's operas, oratorios, Masses, and

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concertos. But that situation is being remedied, and the senior Scarlatti will eventually come into his own.

I Musici's album of the twelve *Sinfonie di Concerto Grosso* presents us with curious works that combine elements of the sinfonia and the concerto. They open with instrumental brilliance and move to passages of startling harmonies. Complex fugues are followed by melodious instrumental arias and finally dances. The Nonesuch record of the *Vespers of St. Cecilia* is startling in its florid vocalism and swirl of accompanying figuration. The choruses are rather more sober, being written in the "old" contrapuntal style. The most important point to emerge from both sets, however, is that Scarlatti *père* had a unique sound of his own, one that paved the way for Handel, Bach, Telemann, and the rest of the High Baroque.

While neither of these performances is particularly dazzling or brings much extra to the music, they are decent enough to let us hear the works fairly. I Musici's readings of the *Sinfonie*, all of which feature the flute, are neat and clean. Denis Stevens never achieves real excitement in the *Vespers*, and the Accademia Monteverdiana chorus sounds more like an ad hoc group of professionals than a cohesive ensemble, but Ursula Connors' voice rings out with authority and excitement. And Scarlatti's music is still there to be heard. *Viva* Alessandro Scarlatti! S.L.

RECORDING OF SPECIAL MERIT

SIBELIUS: *String Quartet in D Minor, Op. 56 ("Voces Intimae").* **DELIUS:** *String Quartet.* Fitzwilliam String Quartet. LONDON CS 7238 \$10.98.

Performance: **Masterly**
Recording: **Top-drawer**

There was real imagination used here in pairing on one disc the lone published string quartets of Sibelius and Delius. They make a fine coupling in terms of both contrast and similarity. Though Sibelius was wholly at home in the classical mainstream, his five-movement chamber masterpiece decidedly departs from the classical norm, whereas Delius sought in this 1916 quartet and other late works to adapt his rhapsodic variation style to the "absolute-music" genres.

The Sibelius quartet needs no exegesis here, and in interpretation and execution the Fitzwilliam's performance equals the only other totally satisfactory recorded versions I have heard: the two by the Budapest Quartet and the 1967 Copenhagen Quartet reading recently reissued on Turnabout.

The Delius quartet is not quite as intense as the Sibelius, but it is nonetheless both beautifully crafted for the medium and thoroughly enjoyable. Rich Delian harmonies inform the opening movement, which is followed by a delectably skittish scherzo in the composer's most lively vein. The slow movement, titled *Late Swallows* (also transcribed for orchestra by Eric Fenby and still available on Angel with Barbirolli conducting), is a long and affecting study in nostalgia. The finale is a bit four-square for Delius, suggestive of the Dvořák *American* Quartet, but good listening in any event. As with the Sibelius, it gets a lovely performance, and both performances get superlative sonics. D.H.

TCHAIKOVSKY: *Suite No. 2, in C Major, Op. 53; Suite No. 4, Op. 61 ("Mozartiana").* Philharmonia Orchestra, Michael Tilson Thomas cond. CBS ◉ IM 36702, © HMT 36702, no list price.

Performance: **Elegant**
Recording: **Spacious**

Those familiar with Michael Tilson Thomas' Deutsche Grammophon disc of the First Symphony will agree, I think, that Thomas' special contribution to Tchaikovsky interpretation is a light touch and freedom from exaggerated dynamics. The same characteristics mark his readings here of the delightful C Major Suite and the Victorian period-piece transcriptions that make up the *Mozartiana*. The digital mastering yields dividends in the quieter, more texturally transparent episodes, such as the magical closing pages of the fourth movement in Suite No. 2. Special kudos to the first-chair clarinet for his cadenza in the variations movement of *Mozartiana* and to the fine solo violinists of concertmaster Carl Pini. D.H.

VERDI: *Il Trovatore.* Katia Ricciarelli (soprano), Leonora; José Carreras (tenor), Manrico; Yuri Masurok (baritone), Conte di Luna; Stefania Toczyska (mezzo-soprano), Azucena; Robert Lloyd (bass), Ferrando; Phyllis Cannan (mezzo-soprano), Inez; Robin Leggate (tenor), Ruiz; others. Orchestra and Chorus of the Royal Opera House, Covent Garden, Sir Colin Davis cond. PHILIPS ◉ 6769 063 three discs \$38.94, © 7654 063 \$38.94.

Performance: **Good, but . . .**
Recording: **Not ideal**

This first digital recording of *Il Trovatore* is a respectable contender among the many analog versions in the catalog, but it is certainly not a candidate for top honors. The main problem is the conducting. Sir Colin Davis has never shown signs of a true affinity for Italian opera, so how could he be expected—save by the peculiar logic of the recording industry—to bring true authority to the blazing pages of *Il Trovatore*? He is a fine conductor who knows how to get precise playing from the orchestra (though at times here he drives the chorus mercilessly), but his pacing is frequently metronomic. The natural rubatos and niceties of phrasing inherent in Italian vocal music elude him. As a result, he cannot guide his singers to their peaks in an opera that has one vocal high point after another ("*Il balen*" and the *Miserere* are good examples). In the absence of inspiration from the pit, we are left with a great deal of singing potential incompletely realized. José Carreras has the dark Spanish color that is ideal for Manrico's music. He is at his best, warm-toned and committed, in the scenes with Azucena, but he is not really at ease in the melting phrases of "*Ah, si ben mio*." When she is not taxed by the high tessitura or the florid requirements of "*Di tal amor*," Katia Ricciarelli sings with great tonal beauty though sometimes dubious intonation. Stefania Toczyska is also plagued by passing pitch problems in her otherwise neatly vocalized, low-key Azucena. The firm top notes of Yuri Masurok are admirable, and I find no serious fault in his performance, though it lacks the conviction of his outstanding in-

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As Tristan, portrait by Schattenstein

Melchior Documented

MANY of the selections in Pearl Records' new two-disc Lauritz Melchior collection have appeared previously in the various reissues that have moved in and out of the catalog during the last fifteen years (Seraphim IB-6086, Preiser LV-11 and LV-124, and Heliodor 2548 749, among others). But there are also several rarities here that I do not remember encountering before: "Winterstürme" (from a Brunswick 78-rpm original), the early *Parsifal* arias (Parlophone), and the long *Walküre* second-act excerpt (from a Metropolitan Opera broadcast on January 16, 1937, left unidentified on the album).

The more tenors I hear in the Wagner repertoire the more I am convinced that Melchior will never be equaled, let alone surpassed. There have been and will be tenors who convey Tannhäuser's suffering or Siegmund's anguish with more intensity, but the sheer musical joy we experience from Melchior's realization of their music cannot be matched anywhere. The beauty and absolute solidity of Melchior's tones, the evenness of his range, the enormous breath support with which he could spin long legato phrases are qualities beyond comparison. His was a big voice that did not rely on volume for effect—for manly tenderness listen to him addressing the sleeping Sieglinde in the broadcast fragment!—and he could project a wide range of dynamic shadings. That broadcast segment is, incidentally, quite faded in sound, but not faded enough to conceal the characteristically wonderful contributions of Lotte Lehmann and Kirsten Flagstad, in case further proof is needed that the Met's Wagner ensemble in 1937 was indeed in a class by itself. Emmy Bettendorf is an outstanding Venus, and Frida Leider's Sieglinde suffers only in comparison with Lehmann's legen-

dary recording. Margarethe Arndt-Ober, the Amneris in the *Aida* excerpt, is vocally impressive but musically rather careless.

The discs have not been mastered with maximum care. "Ein Schwert" has too much hiss, the broadcast excerpt is needlessly cut off before the closing measures, and some of the side endings are noisy as the stylus moves toward the label. All the same, these discs memorably document a vocal giant. Some of the selections were recorded later by RCA Victor in more vibrant sonics, but the technically dated 1923-1936 recordings here invariably present Melchior in fresher voice. —George Jellinek

Lauritz Melchior. Wagner: *Die Walküre: Friedmund darf ich nicht heissen; Ein Schwert verhiess mir der Vater; Winterstürme wichen dem Wonnemond; Du bist der Lenz* (with Frida Leider, soprano); *Act II, Scenes 3-5* (with Lotte Lehmann and Kirsten Flagstad, sopranos). *Siegfried: Nothung! Nothung! neidliches Schwert; Ho-ho! Schmiede, mein Hammer; Dass der mein Vater nicht ist. Tannhäuser: Dir töne Lob; O Fürstin* (with Emmy Bettendorf, soprano); *Inbrunst im Herzen. Parsifal: Amfortas! Die Wunde!; Nur eine Waffe taugt. Wesendonck Lieder: Schmerzen; Träume. Lohengrin: Höchstes Vertrau'n. Die Meistersinger: Morgenlich leuchtend. Rienzi: Allmächt'ger Vater, blick herab. Meyerbeer: L'Africaine: Land so wunderbar. Verdi: Aida: Amneris/Radames Scene* (with Margarethe Arndt-Ober, mezzo-soprano). *Otello: Monologue; Death Scene. Leoncavallo: I Pagliacci: Vesti la giubba.* Lauritz Melchior (tenor); various orchestras and conductors. PEARL © GEMM 228/9 two discs \$21.96 (from Qualiton Records, Ltd., 39-28 Crescent Street, Long Island City, N.Y. 11101).

terpretations in Russian opera. The Ferrando of Robert Lloyd is a bit mushy in diction but strongly rendered and lively in character.

I find the recorded sound somewhat opaque, lacking definition. With a more riveting performance, however, I would have been less aware of this shortcoming. G.J.

RECORDING OF SPECIAL MERIT

WEBER: Clarinet Quintet in B-flat Major, Op. 34. David Shifrin (clarinet); Sequoia String Quartet. *Seven Variations in B-flat Major, Op. 33; Grand Duo Concertante for Clarinet and Piano, Op. 48.* David Shifrin (clarinet); William Doppmann (piano). NONESUCH ● D-79017 \$11.98, © D1-79017 \$11.98.

Performance: **Handsome, affectionate**
Recording: **First-rate**

Collectors who were fortunate enough to pick up Heinrich Geuser's recording of the Weber Clarinet Quintet with the Drolc Quartet when it circulated here in the Sixties on Mace (SM 9028) are not too likely to be excited by the appearance of a new one of the work. David Shifrin and the Sequoia Quartet, however, come closer than any of their phonographic predecessors to matching the eloquence of the Geuser/Drolc team, and by any standard theirs is surely the most persuasive performance now available. Shifrin is a gorgeous clarinetist; he can produce ravishing tone in every register and clearly exults in the opportunities and challenges Weber provided. The strings could have been a little more in the picture—the recording balance here presents the clarinetist as an out-and-out soloist with the most discreet accompaniment—but in general this handsome and affectionate performance is very easy to like.

The two works for clarinet and piano come off with even greater distinction, though Shifrin seems a little self-conscious in them compared with Jerome Bunke's more spontaneous style on Musical Heritage Society MHS 3332. Bunke and his pianist, Hidemitsu Hayashi, offer another set of variations in place of the quintet; the Nonesuch disc not only presents a richer program but has the advantage of William Doppmann's superb playing. Although Doppmann used a present-day Hamburg Steinway, his style evokes the instruments of Weber's time, or at least brings out the peculiar period flavor of the music, and he makes the most of the considerable substance in the piano part, which, after all, Weber created for himself. First-rate sound (except for the reticent string balance in the quintet) and excellent annotation by Nicholas Temperley. R.F.

WOLF: Italian Serenade (see FRANCK)

COLLECTIONS

RECORDING OF SPECIAL MERIT

BONITA BOYD: Flute Music of "Les Six." **Milhaud: Sonatine for Flute and Piano.** **Honegger: Romance for Flute and Piano; Danse de la Chèvre for Solo Flute.** **Durey: Sonatine for Flute and Piano.** **Auric: Aria for Flute and Piano.** **Tailleferre: Pastorale**

for *Flute and Piano*. Poulenc: *Sonata for Flute and Piano*. Bonita Boyd (flute); Kimberly Schmidt (piano). STOLAT SZM 0119 \$5.98.

Performance: **A joy**
Recording: **Very good**

Bonita Boyd's recording of the Jules Herman transcriptions of the Paganini caprices, released about a year ago on Spectrum (SR-138), provided quite a dazzling introduction to this young flutist and must have created a ready audience for anything she might undertake. There is certainly no let-down in this album of works by "Les Six," which is even more impressive than its predecessor since it provides so much musical substance and such a range of moods. The little *Aria* by Georges Auric and the similarly concise *Pastorale* by Germaine Tailleferre are the most ingratiating discoveries, but the familiar Honegger pieces and the Poulenc sonata have never been set forth with greater appeal. Yes, Jean-Pierre Rampal has also recorded some of these works, but the only sort of comparison in order would be in terms of the flutists' somewhat different but equally convincing approaches. Boyd's ripe tone, sure technique, and sensitive response to the different pieces add up to the sort of joyous communicativeness that can hold its own in the most august musical company. Kimberly Schmidt is a fine partner, the sound is very good, the surfaces are clean. The disc is a joy all the way through. **R.F.**

FANFARES. Copland: *Fanfare for the Common Man*; *Ceremonial Fanfare*; *Inaugural Fanfare*. Hanson: *Chorale and Fanfare*; *Fanfare for the Signal Corps*. Harris: *Fanfare for the Forces*. Cowell: *Fanfare to the Forces of the Latin-American Allies*. Wagenaar: *Fanfare for Airmen*. Gould: *Fanfare for Freedom*; *Columbian Fanfares*. Taylor: *Fanfare for Russia*. Bernstein: *Fanfare for J.F.K.*; *Anniversary Fanfare*; *Shivaree*. Fuleihan: *Fanfare for the Medical Corps*. Thomson: *Fanfare for France*. Piston: *Ceremonial Fanfare*; *Fanfare for the Fighting French*. Creston: *Fanfare for Paratroopers*. Goossens: *Fanfare for the Merchant Marine*. Members of the London Philharmonic Orchestra, Jorge Mester cond. VARÈSE SARABANDE ◊ VCDM 1000.240 \$15.

Performance: **Sensational, but . . .**
Recording: **Excellent**

During World War II, Eugene Goossens, at that time resident conductor of the Cincinnati Symphony, got it into his head to commission nineteen fanfares, apparently as a patriotic gesture for the war effort. Just about every American composer with a wide reputation at the time was invited to submit a contribution. Of the flourishes for sounding brass included on this recording, twelve resulted from Goossens' commissions. But of them all, the only one worth a serious second thought is the *Fanfare for the Common Man* by Aaron Copland (it turns up again in his Symphony No. 3). The *Ceremonial Fanfare* and *Inaugural Fanfare* by Copland that follow it on the program are just not in the same league.

There is some other music worth hearing in this compilation, but probably not more than once. Bernard Wagenaar, whose work

is unfairly neglected these days, is represented by a *Fanfare for Airmen* that's free of the period's clichés. Virgil Thomson, incapable of writing boring music any more than boring prose, is entertaining and amusingly Gallic in his *Fanfare for France*. The pieces by Howard Hanson, Roy Harris, Henry Cowell, Paul Creston, and Morton Gould faithfully reflect those composers' unquestionable mastery of their craft, but also the all but fatal "Forties style" they share. Leonard Bernstein's *Fanfare for J.F.K.*, his fanfare for the twenty-fifth anniversary of the High School of Music and Art in New York City, and *Shivaree*, honoring the centennial of the Metropolitan Museum of Art, are all characteristically

brash affairs long since freely pillaged by their composer for less occasional purposes. Deems Taylor's *Fanfare for Russia* is of value mainly for the tuneful folk song on which it is based.

The playing by the brasses of the London Philharmonic under Jorge Mester is nothing less than sensational throughout, and brilliantly recorded, but the cumulative effect of all that huffing and puffing, however spectacular, is monotonous. I think we would have won the war even without these artistic contributions. **P.K.**

EDITA GRUBEROVA: French and Italian Opera Arias (see Best of the Month, page 57)

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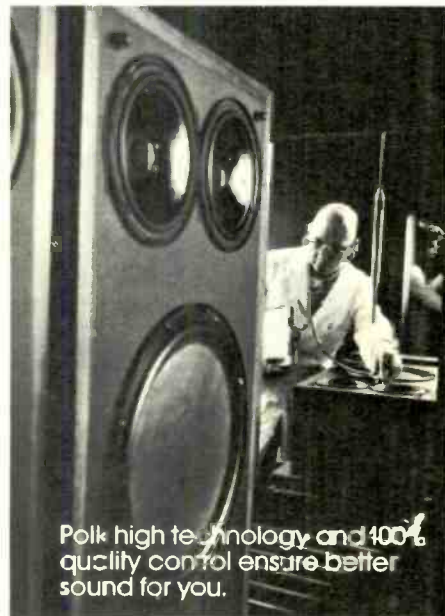
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Popular Music Briefs



Dena Thomas

THE 1982-model **Kitty Wells** makes her record selection on a 1947-model Wurlitzer jukebox, included in this season's exhibit of "Styles of Country Music" at the Country Music Hall of Fame in (where else?) Nashville, Tennessee. A portion of the museum's area has been set aside to display such artifacts, classified according to their positions in bluegrass, Western swing, Cajun, honky-tonk, cowboy, and contemporary music. The jukebox of course fits into the hon-

ky-tonk division. Miss Wells (who is not on permanent display) was the first female singer to have a number-one country hit, the early-Fifties lament *It Wasn't God Who Made Honky Tonk Angels*. Jukebox, incidentally, comes from the Gullah word "juke," meaning disorderly, which is in turn related to a West African word meaning wicked. Honky-tonk, of unknown origin, means a cheap night club, a dive. Time would appear to have a way of ennobling such things. □

THE oddest record album of the year is perhaps the only way to describe "Music of Quality and Distinction," a new release on Virgin Records (available in the United Kingdom only at the moment, but an American version is imminent). The concept? Get an off-the-wall assortment of pop stars, both Old and New Wave, and let them have a go at an unlikely bunch of classic pop and rock tunes. And so we get Tina Turner, the Shadow's

Hank Marvin, and Gary Glitter cheek-by-jowl with various members of the Associates, Heaven 17, and Siouxsie and the Banshees, all performing songs originally recorded by people ranging from Glen Campbell to David Bowie. Standout tracks: Tina Turner's slashing rendition of the old Temptations hit *Ball of Confusion* and the divine Sandi Shaw crooning the Burt Bacharach chestnut *Anyone Who Had a Heart*. □

AMAZING how quickly Hip turns into Ho-hum. Take, for instance, the **B-52's**, who were at Manhattan's Roseland Ballroom recently. I have enjoyed the 52's on previous occasions; their mixture of thrift-shop futurism, surf music, and a sensibility cribbed from old American International teen flicks was quirky enough that you could often forget they were really a one-joke act. And I was disarmed by a bit of hip irony: this self-proclaimed "tacky little dance band" was playing at New York's largest and tackiest dance hall. Well, ho and hum. In case "Mesopotamia," their new David Byrne-produced EP, hasn't already alerted you, the B-52's have discovered Art, and they now appear to believe, astonishingly, that they have Something Important to Say, a bit of hubris ill becoming a group whose primary claim to fame is the altitude of their lead singer's wigs. The show at

Roseland suffered accordingly, and so did I.

Later, at the Ritz, I caught the English sensations **Bow Wow Wow**, the latest thrust of venture capitalism to be masterminded by Malcolm McLaren, the ace media manipulator who invented the Sex Pistols. BWW pilfers trendy musical and fashion ingredients from the current British pop scene and runs them through a Cuisinart. This palate was underwhelmed by what came out despite a dash of tongue in cheek and tasty seasoning by the band's great gimmick, sixteen-year-old lead singer Annabella Lewen. Annabella's jailbait appeal, when trotted out before the wall of sound the band (ex-Ants, mostly) puts out, can be funny for about three minutes, but at the Ritz, which has the most reverberant sound system in the western world, it didn't quite make two. Let's call BWW only arf bad. —S.S.

Cindy Wilson of the B-52's



Eber Roberts

Annabella of Bow Wow Wow



Eber Roberts

"JUST keep on working, no matter what. If someone offers you \$500 for a job and you know you're worth more but that's all there is, take it, take it and be thankful. Just keep on working. Anyone who tells you not to probably wants that job for himself," said jazz singer **Alberta Hunter**, commenting not on the state of the economy but on her own long career.

Columbia Records recently threw a party to celebrate both the release of her latest album, "The Glory of Alberta Hunter" (Columbia FC 37691, reviewed in this issue, page 89), and her eighty-seventh birthday. Most of those attending were half her age or less. Accompanied by Gerald Cook, her musical director and pianist ("my genius," Ms. Hunter calls him) and Barney Josephson, owner of the Cookery in New York where she currently performs, Hunter and guests drank champagne and watched her promotional videotape. Narrated by radio DJ Jonathan Schwartz, with additional commentary by Jo-

sephson and Hunter's producer, John Hammond, Jr., the tape movingly captures the energy and sass of a woman who began nursing in 1907, later took up nursing, and is now in the middle of her third career.

"When they retired me from nursing, they thought I was 'way over the hill at seventy. Well, honey, I lied to them; I was eighty-two."

Ms. Hunter says she plans to keep on performing "for as long as the good Lord lets me." If He treats her as well as He has Eubie Blake, we've got at least another decade to look forward to. —P.W.



Don Lynn



Decent Exposure

DECENT EXPOSURE, Ted Nugent's PR firm, would like you to believe that the irrepressible rock star and Great White Hunter (above, left, with sunglasses) actually shot a deer (right, with antlers), deposited it

on the desk of his management assistant Doug Banker (center, with telephone), and screamed "THE BUCK STOPS HERE!" Was that quip really necessary? Nugent's latest is "Great Gonzos," Epic FE 37667. □

Disc and Tape Reviews

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

Ⓢ = stereo cassette

Ⓢ = eight-track stereo cartridge

Ⓢ = digital-master recording

Ⓢ = direct-to-disc

Ⓢ = quadrasonic disc

Ⓢ = monophonic recording

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

ALABAMA: Mountain Music. Alabama (vocals and instrumentals); other musicians. *Mountain Music; Close Enough to Perfect; Words at Twenty Paces; Changes Comin' On; Green River; Take Me Down;* and four others. RCA AHL1-4229 \$8.98, © AHK1-4229 \$8.98.

Performance: **Very good**

Recording: **Very good**

What has Alabama done for us lately that the Charlie Daniels Band wasn't already doing? Well, despite the slick presentation, Alabama has a little more depth in the vocals, especially in the harmonies, and it can be tuneful in its own way, as on this new album. The band generally goes for the sweet sound here and appears to be looking for hits, but with some taste. I know it's hard to imagine a tasteful use of strings behind a Southern rock band, but there's some reverence for Merle Haggard and Hank Williams in the background, and maybe that's what does the trick. N.C.

LOU ANN BARTON: Old Enough. Lou Ann Barton (vocals); instrumental accompaniment. *I'm Old Enough; Brand New*

Lover; It's Raining; It Ain't Right; Finger Poppin' Time; and five others. ASYLUM EL-60032 \$8.98, © CSI-60032 \$8.98.

Performance: **Pretty good**

Recording: **Clean**

Lou Ann Barton may or may not become the next big Female Phenom (as some critics are already speculating), but she has made an interesting throwback of an album here, the kind of White Girl Sings R-&B at Muscle Shoals effort that Atlantic used to do periodically with the likes of Dusty Springfield. Barton has a voice perhaps best described as lived-in. It's a nice enough sound, but she doesn't take over her material the way a really great singer does, at least not here. The production, by ex-Eagle Glenn Frey and Jerry Wexler, makes a big deal about being pared-down and unpretentious, but the overall effect is more akin to a high-class demo disc.

Basically, "Old Enough" is a middling to good bar-band blues album. When it works, as on the nice cover of Marshall Crenshaw's *Brand New Lover*, it's fun, and when it doesn't, as on a rote reading of the venerable *Maybe*, it induces heavy fidgets. S.S.

BUCKNER & GARCIA: Pac-Man Fever. Jerry Buckner, Gary Garcia (vocals and instrumentals); instrumental accompaniment. *Pac-Man Fever; Froggy's Lament; Hyperspace; Mousetrap;* and four others. COLUMBIA RC 37941, © RCT 37941, no list price.

Performance: **Routine**

Recording: **Good**

The title song of this album, *Pac-Man Fever*, has become a big hit single among the kids. It's one of those celebrations of a raging fad, in this case the video-game craze, that pre-teens can identify with. Jerry Buckner and Gary Garcia, who wrote that song and everything else on this album, haven't exactly strained their creative resources in the lyrics department, and their collection of bleeping, roaring, and twanging sound effects gets fairly boring after a band or two. I suppose there is some irony in the record companies' trying to duplicate the sounds of the very games that have grabbed so many leisure dollars away from them. P.R.

(Continued on page 77)

DURING the latter part of my formative years, rock-and-roll hit the skids—which I had always suspected were greased with oil from the hair of countless bad singers named Bobby. Dick Clark's glibness figured in there too, along with the fact that they had to monkey with the tape speed to get certain "singers" to appear to be in tune. So I said the hell with it. I evolved a ritual of listening to three or four classical albums and then two or three folk albums, almost always those of the Weavers, every

nally, he was the first show-biz character I had met who really did seem, just like it says in his songs, to care more about people than about getting rich.

For instance, there was his telling the House Un-American Activities Committee to shove it when that definitively un-American body wanted to pry into his pro-labor activities in the Thirties, followed by Joan Baez's refusal to appear on network television because they wouldn't allow the "tainted" Seeger. Seeger was a heady fig-

ure—would be *welcome* in one's home. I think you'll also get a kick out of this particular product if you like to think about the state of the world and laugh and be entertained at the same time.

For the old Weavers fan, there's also a twinge of something beyond nostalgia and on into the Jungian concept of synchronicity. As this is written, Lee Hays, the Weavers' bass singer and an old-time labor singer, has been dead about two weeks. Just before the Arlo-led finale (*Amazing Grace*) on side four of "Precious Friend" there's a brief tribute to Hays involving two whimsical songs he wrote and the famous *If I Had a Hammer*, which he and Seeger wrote.

ELSEWHERE there's a variety of stuff, a lot of it funny, sandwiched around reminders that the world needs our help. David Mallet's *Garden Song* may never recover from the way Arlo teaches it to the audience. It's at once a parody of the way Seeger lines out the verses and a subtle satire of the "back to the basics" mentality in education and politics and so many other things these days. "You tried a bunch of new ways of learning things," Arlo says, "and they don't work. Have to go back to the old way. We call it the boring method." And he proceeds to drag out the words of the first verse in a sing-song monotone that would grate on the nerves of the most rote-oriented third-grade teacher of the "good" old days. The effect is hilarious.

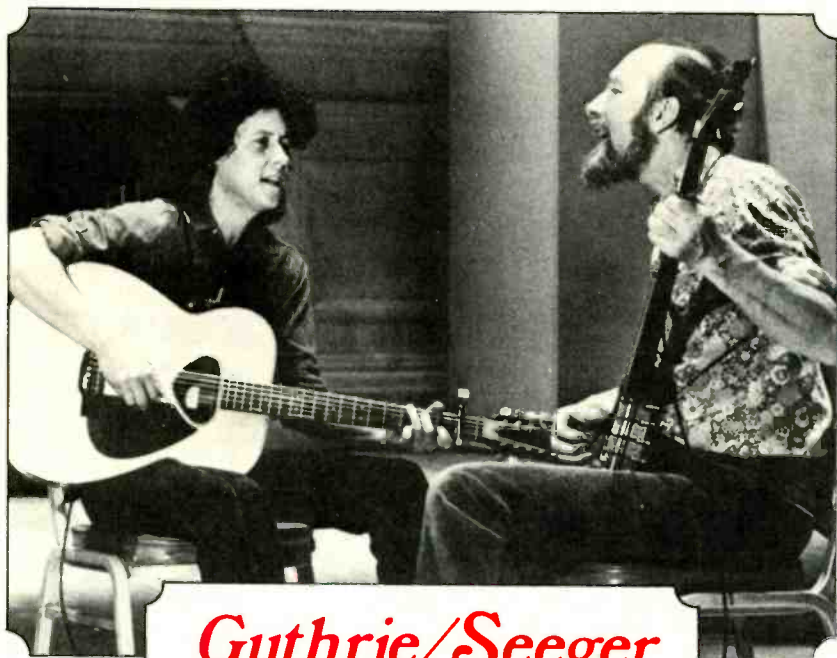
Then there are some new words to *Old Time Religion* that are Seeger's way of reminding us that, while some of the Weavers' best songs came straight out of the Baptist hymnal, there are a lot of religions out there old-timer than Christianity. How does this verse grab you? "We will play with those old Druids/They drink fermented fluids/Walking naked through the woo-ods/And it's good enough for me."

And there are a couple of good Woody Guthrie tunes, Tom Paxton's clever and pointed *I'm Changing My Name to Chrysler* ("If you're a corporate Titanic and your failure is gigantic/Down in Congress there's a safety net for you"), and, well, just a whole slew of neat songs put over by two good people being themselves.

—Noel Coppage

ARLO GUTHRIE AND PETE SEEGER:

Precious Friend. Arlo Guthrie (vocals, guitar, piano, harmonica); Pete Seeger (vocals, banjo, guitar, recorder); Shenandoah (instrumentals). *Wabash Cannonball*; *Circles*; *Hills of Glenshee*; *Ocean Crossing*; *Celery-Time*; *Run, Come See Jerusalem*; *Sailin' Up, Sailin' Down*; *How Can I Keep from Singing*; *Old Time Religion*; *Pretty Boy Floyd*; *Ladies Auxiliary*; *Please Don't Talk About Me When I'm Gone*; *Precious Friend You Will Be There*; *Do Re Mi*; *Tarentella* [sic]; *The Neutron Bomb*; *I'm Changing My Name to Chrysler*; *St. Louis Tickle*; *Wimoweh*; *Will the Circle Be Unbroken*; *Garden Song*; *Kisses Sweeter Than Wine*; *Raggedy Raggedy*; *In Dead Earnest*; *If I Had a Hammer*; *Amazing Grace*. WARNER BROS. 2BSK 3644 two discs \$14.98, © 2K5-3644 \$14.98.



Guthrie/Seeger

Sunday morning. I thought of it as a religious experience.

So Pete Seeger and I go back a long way. By the time I discovered the Weavers, of course, they had gone through Eric Darling and Frank Hamilton at the tenor slot. Pete long since having departed to attend to his always busy solo schedule. But the albums with Seeger were the ones I liked most and played most. He described himself as a "split tenor." *Time* magazine, when it got around to noticing the early Sixties' folk-music craze, acknowledged him as the spiritual leader of the whole shebang but expressed sore disappointment at how he actually sounded—"like he's got corncobs stuck in his throat," I believe was the phrase.

I never had any illusions that Seeger was a great singer technically. In those days—any days, I guess—a "good" singer was supposed to sound the same all the way up and down his range, and Seeger sounded like four or five different people depending on which note he was hitting. But his energy, I thought, was related to that of Chuck Berry and Clyde McPhatter and the other good ones who'd been replaced by the Bobbies, and there was apparent in him a musicianship that went beyond vocal ability. Fi-

ure for someone like me whose musical and political faculties were awakening at roughly the same time.

I wouldn't say that Arlo Guthrie is only the second show-biz figure I've encountered who cares more about people than money, but the list hadn't grown very long by the time I encountered him, as most people did, during the *Alice's Restaurant* period. Being the son of a legend who was in the same profession can be a bitch (just ask Hank Williams Jr.), but Arlo has always—always—handled it with grace, and he's given us some pretty good tunes through the years.

MOST summers in recent years, Seeger and Guthrie have toured together for at least a few dates, and Warner Bros.' new "Precious Friend" is, I believe, the second two-disc album recorded during such dates. It is, like their stage show, largely a matter of now Pete, now Arlo, both backed by Arlo's band Shenandoah. If you've caught them live or on public TV, you'll find the album representative. The reason it works better than most live albums in one's own home is probably that the principals are such nice, decent, eternally optimistic people that they—and not just their prod-

RECORDING OF SPECIAL MERIT

THE CHARLIE DANIELS BAND: *Windows*. The Charlie Daniels Band (vocals and instrumentals). *Still in Saigon; Ain't No Ramblers Anymore; The Lady in Red*; and seven others. EPIC FE 37694, © FET 37694, © FEA 37694, no list price.

Performance: **Southern rock defined**
Recording: **Good**

I've had trouble liking whole albums by Charlie Daniels, but this one is well-balanced and shows his country-flavored Southern-rock sound polished to a fine shine. Daniels goes for lyrics that the average bozo won't have to think about, and, as I've said before, he has at times been the kind of populist that makes people think the word means opportunist. But instead of flag waving (or whatever turns 'em on this month), "Windows" starts right off with a sensitive song by Dan Daley about a Vietnam vet's readjustment problems. We soon move to lighter subjects, of course—the saga this time, incidentally, is about a Cajun who breaks out of prison to get the guy who done his sister wrong—but there are some pretty fair tunes and the band smokes much of the time. Just like Charlie says on those TV commercials. Well, they've worked hard at it for a number of years. Good to see something pay off the way it's supposed to. *N.C.*

JOHN DENVER: *Seasons of the Heart* (see Best of the Month, page 56)

RECORDING OF SPECIAL MERIT

RONNIE DYSON: *Phase 2*. Ronnie Dyson (vocals); vocal and instrumental accompaniment. *Bring It On Home; Heart to Heart; Now; Even in the Darkest Night*; and five others. COTILLION SD 5234 \$8.98, © CS 5234 \$8.98, © TP 5234 \$8.98.

Performance: **Greatly improved**
Recording: **Good**

After a long absence from recording, Ronnie Dyson, perhaps best known for his role in the Broadway production of *Hair*, has begun to recapture the youthful, high-strutting exuberance that marked his earliest recording and performance efforts. Even his voice seems to have been rejuvenated, for here he sings with a lusty appetite for each word and note, making full use of his natural range and flexibility of expression. These songs seem tailor-made for him, too. On gutsy, basic r-&-b numbers such as *Bring It On Home* and *Expressway to Your Heart* he bounces along on the melody, whereas other cuts highlight his talent for sweet singing (*Now*, for instance). Overall, this is Dyson's most satisfying release in a long time. *P.G.*

MILLIE JACKSON: *Live and Outrageous*. Millie Jackson (vocals); instrumental accompaniment. *Passion; A Horse or Mule; Ugly Men; I Had to Say It*; and four others. SPRING SP-1-6735 \$8.98.

Performance: **Raunchy**
Recording: **Live and very loud**

There is a large "Rated XXX" designation on the cover of Millie Jackson's newest album, and for once they're telling us the

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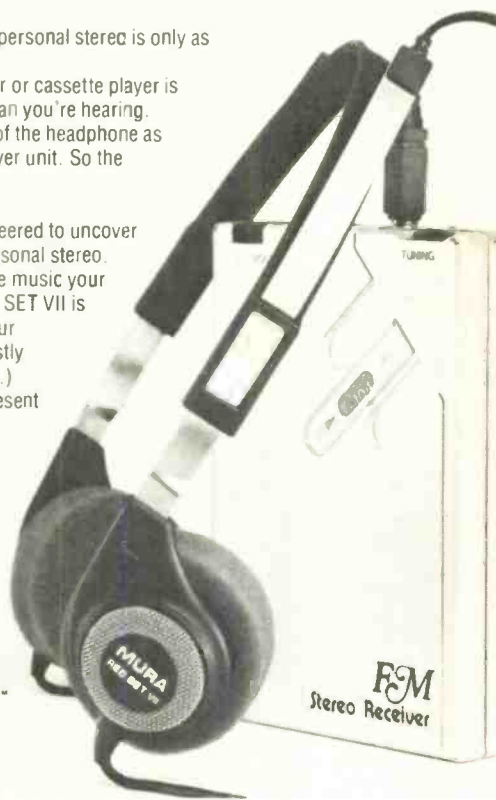
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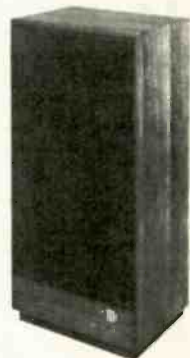
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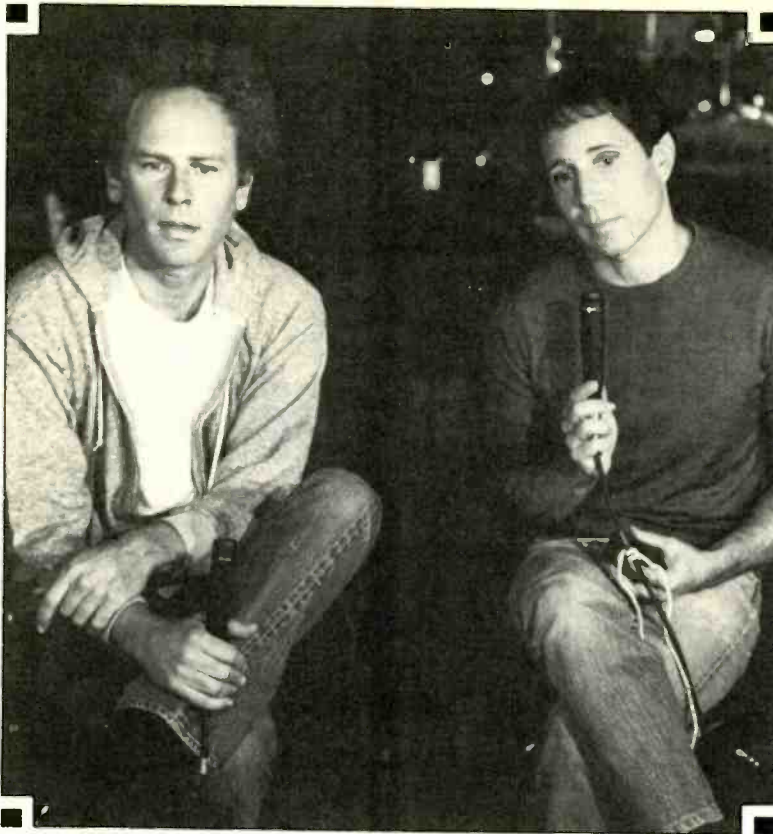


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Michael Putland/Retna

Simon and Garfunkel

HALF a million people attended Paul Simon and Art Garfunkel's "neighborhood concert" in New York City's Central Park on September 19, 1981. That's 50,000 more than were at the Woodstock Festival, so the baby-boomers, once so idealistic and so music-obsessed, are evidently still out there. Of course, as the crowd shots included with the new Warner Bros. album of the concert indicate, they were joined by a fair number of younger people (indeed, my eleven-year-old daughter says Paul Simon is her favorite pop singer—but I should tell you that this particular daughter has been the epitome of a flower child all her life). No doubt nostalgia hung heavy in the air, but, then, so did history.

The album is more than documentation, however. Someday the culture mongers of Alpha Centauri, poking around in the remains of our dead civilization, may decide that this is their favorite Simon and Garfunkel album. As live-concert albums go, it shows unusual attention to detail and reflects a great deal of care in the presentation. Simon wanted to give the people something a little different from the stuff available on the duo's old albums but was more or less forced into greatest-hits programming, so he got David Matthews and Dave Grusin to help him devise new arrangements for almost everything. Nothing radical, just some *sensible* different ways of doing things. A second acoustic guitar, without a hint of flashy showboating, adds a

nice touch to some of the older songs, and there are small changes in phrasing and such here and there, all well recorded.

THE new sax-and-synthesizer version of the instrumental bridge of *Still Crazy After All These Years* is inferior to the original studio version, but most of the changes provide small surprises that will keep you perked up. And, of course, all these good songs gathered together will remind you that Simon has been one of the most important spokesmen for his generation. I think other generations, in identifying with them, are finding something beyond clever lyrics and catchy tunes. Could it be that idealism, so obviously down, is not really out?

—Noel Coppage

SIMON AND GARFUNKEL: *The Concert in Central Park*. Paul Simon (vocals, guitar); Art Garfunkel (vocals); instrumental accompaniment. *Mrs. Robinson; Homeward Bound; America; Me and Julio Down by the Schoolyard; April Come She Will; Wake Up Little Susie; Still Crazy After All These Years; American Tune; Late in the Evening; Slip Slidin' Away; A Heart in New York; Kodachrome/Mabellene; Bridge over Troubled Water; Fifty Ways to Leave Your Lover; The Boxer; Old Friends; The 59th Street Bridge Song (Feelin' Groovy); The Sounds of Silence.* WARNER BROS. 2BSK 3654 two discs \$14.98, © 2M5 3654 \$14.98.

truth. "XXX" is a *mild* description of Jackson's carryings-on here. The album was recorded live at the Atlanta club Mr. Vee's Figure 8 before an audience apparently as raucous and raunchy as Jackson herself, and their appreciation of her is tumultuous. Perhaps the funniest part of the recording is the opening track, for two reasons: first, because it's more or less a loose audience warm-up, and second, because the street language, scatology, and racism of Jackson's act begin to pall after five minutes or so. She's funny in small doses, but after a few numbers I started to feel as though I were trapped on a cross-country bus with a raving Eighth Avenue hooker. *P.R.*

WAYLON JENNINGS: *Black on Black*. Waylon Jennings (vocals, guitar); instrumental and vocal accompaniment. *Women Do Know How to Carry On; Honky Tonk Blues; Just to Satisfy You; Shine;* and six others. RCA AHL1-4247 \$8.98, © AHK1-4247 \$8.98, © AHS1-4247 \$8.98.

Performance: **Very good**

Recording: **Good**

Chips Moman produced this album and gave it a dense, opaque sound. The last Jennings album Moman produced was "Ol' Waylon" a few years ago, and that release, you'll recall, led off with *Luckenbach, Texas*. Jennings hasn't had a hit quite that monstrous since, but he has had hits and his albums have sold well. I suspect that Jennings' yearnings for giant hits had less to do with the change in production values on this disc than did the departure of Richie Albright, his drummer/producer for twenty years.

"Black on Black" isn't totally un-Waylon-sounding, but the bare-fingered acoustic rhythm guitar and the stuttering electric lead do seem like token figures. Much of the time, Moman has almost a big-band sound going. There's nothing *wrong* with using horns in Hank Williams' *Honky Tonk Blues*—they fit in all right—but that's one of several things here that hint of change for the sake of change. *Women Do Know How to Carry On* should be a hit anyway, but it seems tailor-made for the style of Jennings' *old* band. And he probably shouldn't have recorded *Folsom Prison Blues* at all, since it does not draw much on what's unique or special about Jennings' vocals; it just reminds you that a fellow named Johnny Cash did it first.

Still, this is a pretty good album overall. *Just to Satisfy You*, which Jennings wrote with Don Bowman and recorded when he was in his twenties, is given more electric guitar than in Chet Atkins' original production, and the one here compares favorably all around. It shows Waylon's voice is richer on the low notes nowadays, and it has Willie Nelson in there singing the second verse. Although there's just one truly outstanding cut on side two, it's a doozy: Rodney Crowell's *Song for the Life*. The main early accompaniment is a piano that sounds as big as a barn, and Waylon sings with an intensity almost diametrically opposed to the relaxed version Jerry Jeff Walker released several years ago. The song is so good that both approaches work equally well. Aside from that cut, though, I really can't see any place where Moman has improved things. Actually, Jennings is his own best producer.

"Crazy" was his best album in recent years, and "The Ramblin' Man," the first of his albums that he produced himself, started much of this outlaw business. Hire the best, Waylon. *N.C.*

B. B. KING: *Love Me Tender.* B. B. King (vocals, guitar); vocal and instrumental accompaniment. *One of Those Nights; Since I Met You, Baby; Love Me Tender; You've Always Got the Blues;* and six others. MCA MCA-5307 \$8.98, © MCAC-5307 \$8.98, © MCAT-5307 \$8.98.

Performance: **A diamond in mud**
Recording: **Very good**

B. B. King says here, in a facsimile autographed note on the liner, that "This is the greatest album I have recorded in my thirty-five years in the music business. It represents my lifetime dream... and puts together all my roots and influences from blues to country..." I'm glad he's happy about it, but I find myself considerably less than enthusiastic.

The album is a slick, supper-club collection of ballads, cautiously arranged with lush violin tracks and cooing female background vocals, into which glutinous mass King's vastly experienced and subtle voice is inserted. He also plays perfunctory licks on "Lucille," his affectionately named guitar. The pedantic arrangements retard what little forward motion there is in some of the songs, such as Mickey Newbury's *You've Always Got the Blues* and Don Gibson's *Legend in My Time*. The title song is the same soggy dud it always was, even in Elvis' original. The only really successful cut is Ivory Joe Hunter's ironclad *Since I Met You, Baby*.

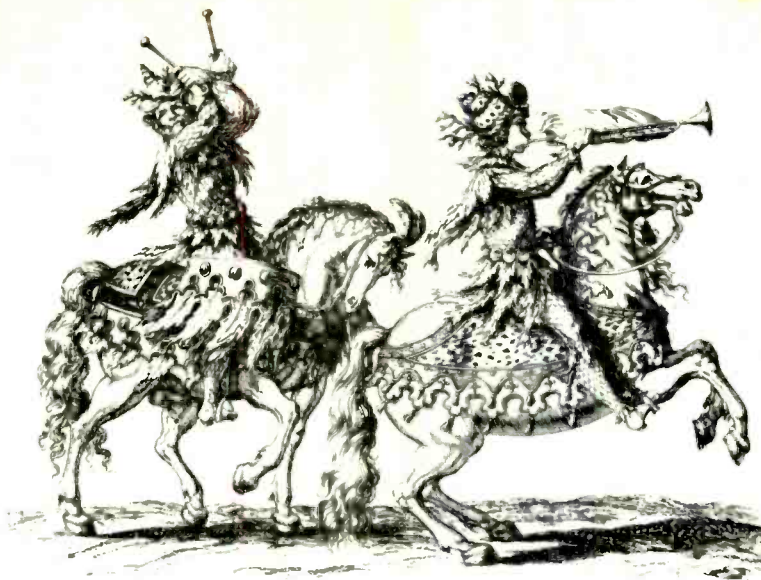
King is a fellow of worldly grace and dignity. As this album indicates, he has settled into the commercial night-club circuit. Only a heartless purist would wish him back in his struggling condition of thirty years ago, but he was then one of the best blues singers in America. He is still first-class, but, unfortunately, this album isn't. *J.V.*

VAN MORRISON: *Beautiful Vision* (see Best of the Month, page 56)

WILLIE NELSON: *Always on My Mind.* Willie Nelson (vocals, guitar); Bobby Emmons (keyboards); Reggie Young (guitar); Mike Leech (bass); Gene Chrisman (drums); other musicians. *Do Right Woman, Do Right Man; Always on My Mind; A Whiter Shade of Pale; Let It Be Me;* and six others. COLUMBIA FC 37951, © FCT 37951, © FCA 37951, no list price.

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

For this album Willie Nelson, like his pal Waylon Jennings on his new "Black on Black" (they make criss-crossing guest appearances on these roughly simultaneous releases), turned to studio musicians and Nashville producer Chips Moman. Willie's record is a little stronger than Waylon's, for a combination of reasons: Willie's style translates better to Moman's country-pop arrangements, the songs suit him a little better, and Moman's influences here are a little quieter. When Waylon goes soft, he needs to go spectacularly soft, as in *MacArthur Park*, whereas Willie's forte is mak-



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ing you pay attention to the words of *any* damned thing.

Waylon guests here on the flamboyant classic *Whiter Shade of Pale*; his superb pipes come into play, and he is the more impressive of the two. But it takes Willie to get away with most of the other stuff, and I reckon one of his grins wouldn't be out of place afterwards. Nor will one of yours be. And no, Don Meredith didn't write *The Party's Over*; Willie did, and this is how it goes when it's sung in tune. N.C.

OAK RIDGE BOYS: *Bobbie Sue*. Oak Ridge Boys (vocals); instrumental accompaniment. *Bobbie Sue*; *I Wish You Were Here*; *Doctor's Orders*; *Old Kentucky Song*; *So Fine*; *Until You*; and four others. MCA MCA-5294 \$7.98, © MCAC-5294 \$7.98, © MCAT-5294 \$7.98.

Performance: **Crisp**

Recording: **Likewise**

The Oak Ridge Boys do have a sound of their own, but it's subtle, and you may have to hear them several times to pick them out of a line-up of male quartets—or would, if there were enough good male quartets to make a respectable line-up. Mostly they are a song-oriented group as far as the mass audience is concerned, and so far they've been fairly astute at finding songs that are catchy and commercial. On "Bobbie Sue," following up the success of *Elvira*, they twice wax r-&-b (blue-eyed division): once in the title song, a freshly written doo-wop-and-saxophone piffle, and again in the venerable *So Fine*. The boys are much more at ease—and more effective—with the former. They aren't very inspired on the other rock standard, Robbie Robertson's (really the Band's) *Up on Cripple Creek*.

But there's a fairly good mixture of songs, if you don't require that the songs be very deep, and most of the performances have a certain amount of zest. The instrumental backing is mostly slick, but it lets some actual pickers be heard making some sneaky runs and licks now and then, and it's engineered so you can hear them. This is a fair sampler of the Oak Ridge Boys' activities—a bouncy little record for your bouncy little moods. N.C.

BONNIE RAITT: *Green Light*. Bonnie Raitt (vocals, guitar, slide guitar); Johnny Lee Schell (guitar, vocals); Ricky Fataar (drums, vocals); Ian McLagen (keyboards); Ray Chara (bass); other musicians. *Keep This Heart in Mind*; *River of Tears*; *Can't Get Enough*; *Willya Woncha*; *Me and the Boys*; *Green Lights*; and four others. WARNER BROS. BSK 3630 \$8.98, © M5 3630 \$8.98.

Performance: **Straight ahead**

Recording: **Good**

Though almost all of Bonnie Raitt's albums give rhythm-and-blues a nod, and her affinity for the blues is well known, this new one deals mostly with what Bob Seger meant by "old-time rock-and-roll." She has a new band with a tight, rather opaque sound. The rhythms are simple and the drums are loud, and most of the tunes make a rather predictable beeline through three chords. If you want this sort of thing done, having Raitt's golden voice involved in it is a nice bonus, but the program doesn't allow her to

exploit what's unique about her vocals. It would sound different if you substituted, say, Pat Benatar's vocals in there, but not different enough for me.

I think Raitt's trouble with making albums—considering how much more impressive she always is live—is that she still doesn't realize how good she is. In any case, "Green Light" could use more ideas out of the lead instrumentalists, less vamping and riffing, more open space in general—although the bass player, Ray Chara, is a live wire—and I think all but about three songs could be improved on. In general, I'd like more of That Voice. I can get old-time rock-and-roll any time. N.C.

THE RECORDS: *Music on Both Sides*. The Records (vocals and instrumentals). *Imitation Jewelry*; *Not So Much the Time*; *Keeping Up with Jones*; *Third Hand Information*; *Everyday Nightmare*; *Selfish Love*; and five others. VIRGIN INTERNATIONAL VI 2206 \$7.98.

Performance: **Variable**

Recording: **Overloaded**

Several personnel changes as well as the production by the Records' drummer, Will Birch, make this album somewhat spotty and less satisfying overall than its predecessor, "Crashes." A merely competent performer, Birch has brought his drums further up front in the mix than they need to be—so much so that they compete with the strenuous efforts of Chris Gent, the new lead vocalist. He may be singing hard as a deliberate stylistic device, but I suspect it's just to be heard.

The Records were responsible for *Starry Eyes* in 1980, and they're still writing good, sometimes very good, material. There just isn't as much of it here as before. Birch and guitarist John Wicks are the principal songwriters now, with some collaboration by Gent, bassist Phil Brown, and new lead guitarist Dave Whelan. Their efforts show less subtlety in both writing and playing than previously. There may be music on both sides of this disc, but everything on side one is pretty dull except the last cut, *Not So Much the Time*. The other side starts off better with *Keeping Up with Jones* and *Third Hand Information*. The latter is the best cut on the album as both a song (it reminds me of late-Sixties Ray Davies) and a performance. The album bogs down again after that.

Perhaps the Records have just run out of steam. I hope they can build it up again; they're too good to lose. J.V.

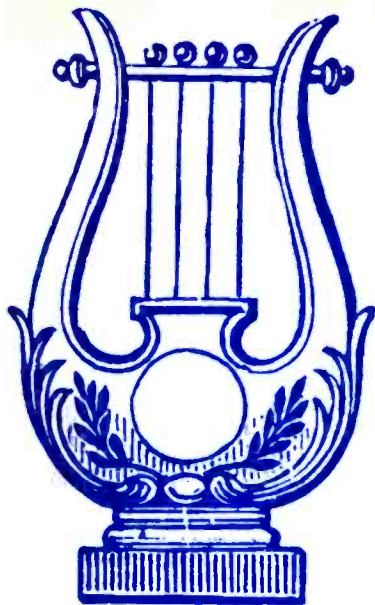
OTIS REDDING: *Recorded Live—Previously Unreleased Performances*. Otis Redding (vocals); other musicians. *Destiny*; *Good to Me*; *Chained and Bound*; *Ol' Man Trouble*; *I Can't Turn You Loose*; and three others. ATLANTIC SD 19346 \$8.98, © CS 19346 \$8.98.

Performance: **Spotty**

Recording: **Good**

Here's an album that promises considerably more than it delivers. The late Otis Redding was probably the single greatest figure to come out of the Sixties Soul explosion, and in 1982 I would rather hear tapes of him singing in the shower than most of what's

(Continued on page 83)



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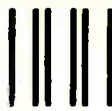
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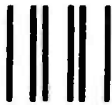
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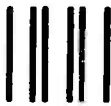
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currently on the radio. But the performances on this release, recorded in early 1966, frequently lurch beyond the spontaneous into the unrehearsed. Basically, these are the out-takes from a concert album released during Redding's lifetime, "In Person at the Whiskey a Go Go," which is a genuine classic and should be reissued too sweet. Some of the stuff here is fun in a loose-limbed way, but there's a reason it's all been in the can for sixteen years: it's not terribly memorable. S.S.

SOFT CELL: *Non-Stop Erotic Cabaret*. Marc Almond (vocals); David Ball (electronic and acoustic instruments). *Frustration; Tainted Love; Seedy Films; Youth; Sex Dwarf; Entertain Me*; and four others. SIRE SRK 3647 \$8.98, © M55 3647 \$8.98.

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

"Non-Stop Erotic Cabaret" is a joyless excursion into the tenderloin. It exploits just about every sordid night-world cliché in bleak, unrelenting detail. There's even an S-&M session in the back seat of a Rolls in which we hear a dwarf spank a "disco dolly" to orgasm in the left speaker. Soft Cell plainly intends to outrage, but at a time when twelve-year-olds are getting off on Jim Morrison the way another generation swooned over Frankie Avalon, that's become pretty hard to do. So Soft Cell hedges its bet with the non-stop, synthesized dance beat that catapulted *Tainted Love* up the charts.

Marc Almond's smarmy vocals are just right for these lurid little tunes: he sings with the prissily suggestive diction of a perverted Latin teacher at an English boarding school. There are some real jolts, such as the bone-chilling chorus of *Say Hello Wave Goodbye*, but most of "Non-Stop Erotic Cabaret" is too exotic to be convincing. It's like a view of the strip from a passing car, windows up. It's a lot less glittery—and a lot grimmer—out on the street. M.P.

STARS ON: *Stars On Long Play III*. Stars On (vocals and instrumentals). *The Stars Will Never Stop; Sympathy for the Devil; Miss You; As Tears Go By; Brown Sugar*; and forty-one others. RADIO RR 19349 \$8.98, © CS 19349 \$8.98, © TP 19349 \$8.98.

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

Having sold about a zillion copies of their soundalike Beatles disco medley, in the process creating something of a medley industry, the Dutch studio conglomerate known as Stars On now weighs in with a similar treatment of classic songs by the Rolling Stones and Stevie Wonder. Again the results leave me ambivalent in the extreme. I mean, on the one hand these recreations are spookily accurate down to such little details as duplicating Brian Jones' haunted mellotron parts on *We Love You*, which is a respectable achievement in terms of sheer craft (I've tried to do the same thing on a home four-track myself). On the other hand, the medley format can't help but trivialize the songs, and that doesn't thrill me. Of course, the same could be said about those great old Buchanan and

Goodman Flying Saucer records from the late Fifties, and I adore those. So I really can't grouse about what are, after all, only commercial novelties. But a word of warning: if the Stars On folks keep this up, I'm going to start publishing collections of my best old reviews. S.S.

RECORDING OF SPECIAL MERIT

MARLENE VER PLANCK: *A Warmer Place*. Marlene Ver Planck (vocals); Ben Aronov (piano); Jay Leonhart (bass); Ron Traxler (drums). *Sing; You Know What?; In the Still of the Night; Old Devil Moon; I Walk with Music; Two for the Road; I've Got You to Lean On*; and seven others. AUDIOPHILE AP-169 \$8.98.

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

Marlene Ver Planck's albums always have a dependably high quality. A singer with enormous respect for and knowledge of her craft, she can always be counted on to sing good songs really well. Consider, for instance, her treatment here of the lovely old Cole Porter standard *In the Still of the Night*. She wisely refuses to turn it into the kind of four-alarm rhapsody that so many other less thoughtful singers seem to think is the only way to perform it. Instead, she opts for a long, floating vocal line and a lightly wistful lyric reading. "A Warmer Place" is dedicated to the late Alec Wilder and includes his last song (lyrics by Loonis McGlohon), *South, to a Warmer Place*. It's another of those small-scale, near-perfect gems that were Wilder's specialty, and Ver Planck performs it with artistry, airy grace, and obvious love. P.R.

RECORDING OF SPECIAL MERIT

THE WAITRESSES: *Wasn't Tomorrow Wonderful?* The Waitresses (vocals and instrumentals); instrumental accompaniment. *No Guilt; Wise Up; Quit; It's My Car; Heat Night; Redland; Pussy Strut*; and four others. POLYDOR PD-1-6346 \$8.98, © CT-1-6346 \$8.98, © 8T-1-6346 \$8.98.

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

If you've only heard their single, *I Know What Boys Like*, you'd be justified in thinking the Waitresses were a B-52's or Go-Go's rip-off, a band with modest musical ideas fronted by yet another whiney chick who's a tease to boot. And you'd be all wrong. The Waitresses are a hot-rocking bunch of smart alecks and more fun than a ride to the beach in the summer with the top down and an ice chest full of Thunderbird.

Consider *No Guilt*, a song that turns the tables on every mopey tearjerker you've ever cringed at by a cheerful litany of all the good things that have happened since the big break-up: "Everyday at seven I've been watching Walter/I've been reading more and looking up the hard words/I met people who can get me on the guest list/I've learned a lot since you've been gone." There's nothing contrived or false about this music, even though the point of view is that of a woman—lead vocalist Patty Donahue—while the songs were in fact written

(Continued on page 87)



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"YOU'RE not going to ask me why I made 'Tubular Bells,' are you?" It's easy to forgive Mike Oldfield for wanting to steer the conversation away from the one thing everyone remembers him for. It was 1973 when Oldfield appeared, seemingly out of nowhere, with his epic one-man album, "Tubular Bells." Consisting of a single continuous, fifty-minute composition with more hummable melodies in it than

came synonymous with pop music that is original, intelligent, and well off the beaten path.

But success in popular music is nothing if not ephemeral. In the United States, Mike Oldfield's following today is probably best described as "cult," yet he continues to have a huge audience in Britain and in West Germany (the second-largest album market in the world). His last LP, "QE2," sold

field party's attention that morning was tour jackets. *Tour* jackets? Thirty genuine-leather R.A.F. aviator jackets, to be exact, each adorned on the back with a large decal picturing a prop plane headed into a storm—from the cover of Oldfield's new album, "Five Miles Out"—and the legend "Mike Oldfield World Tour." The amateurish artwork was a matter of concern to Oldfield, his manager, and another artist who'd been called in to look it over. Everyone hated it. It was agreed that the person responsible should be sent on a tour of the Falkland Islands.

I reminded Oldfield that *he* wasn't known for touring.

"I soon will be." A grueling one-hundred-and-five-date world tour—the U.S., Canada, New Zealand, Australia, Japan, and Europe—would see to that. He hasn't toured before, he says, because he has been too busy making records. "Now I make records with live concerts in mind. My previous albums were difficult to reproduce live—well, I *thought* they were difficult. But I can do it now."

Although Oldfield's albums still have the lush sound of a hundred-piece orchestra, he finds he can re-create them in concert with a mere seven musicians.

"Everyone plays more than one instrument. And, well, I do have some lovely machines. The heart of the system is the Fairlight CMI—Computer Musical Instrument. It isn't a synthesizer, strictly; it's a *digital* synthesizer. It doesn't create sounds with oscillators and filters and all that. What it does is make a digital recording of a natural sound and store it in the core memory. If you like the sample you've got, you transfer it to a floppy disc, and then you have a repertoire of natural sounds—flutes, violins, the whole works. The CMI has a keyboard you play like a piano, and it sounds like a real orchestra.

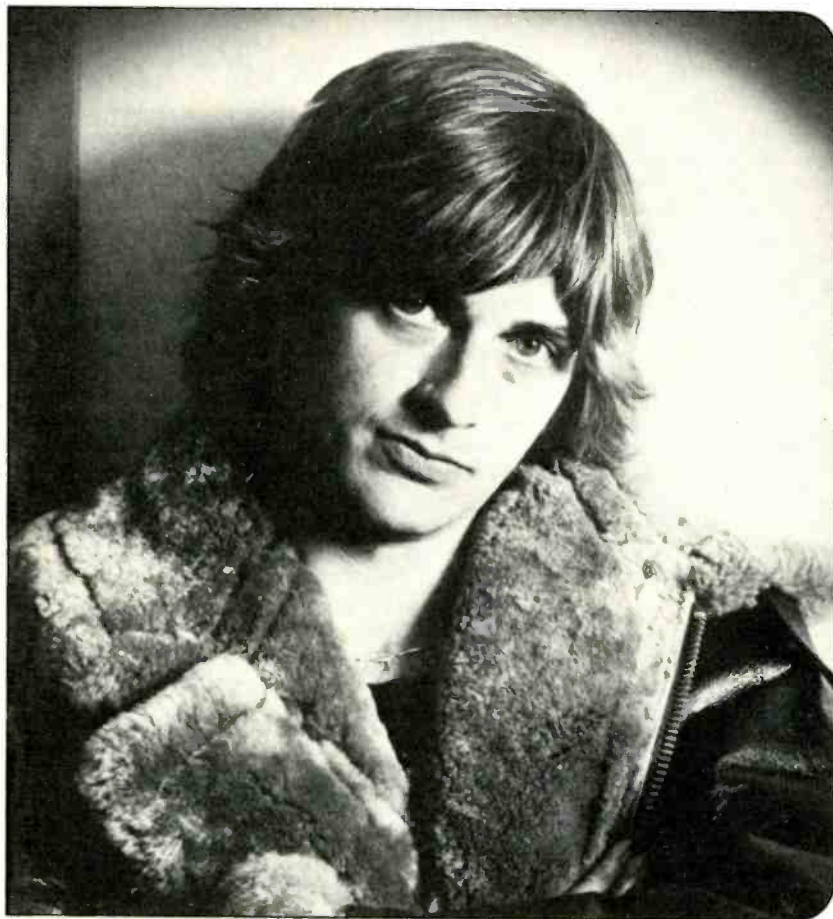
"We've got some wonderful sounds programmed in, such as Paddy Moloney on the Irish pipes—the real thing, not a synthesized version. They're the sounds that are used on the album, so the live show sounds very much like it."

Where does all this digital synthesizing take place?

"Well, I like bathrooms—you know, singing in the bathroom. So basically I built a studio that's like a huge bathroom. It's all tiled. And I've got a computerized desk—it really enables you to get good mixes. It's mostly American equipment."

JUST as the tour is designed to support the new album from one side, a single has been released to drum up a little interest from the other: *Family Man* is a playful foray into New Wave that's about an awkward, embarrassing exchange between a hooker and a reluctant john.

"It's a fun thing, but what worries me is that if *Family Man* is a hit, everybody's going to be saying, 'He must be making an album of things like that.' But it's not like anything else I've ever done. It's good, but it's not representative... not important."



Allen Bellard

Mike Oldfield

"...I built a studio that's like a huge bathroom"

the next five albums on the charts at the time, it sounded like the work of a modern Rip Van Winkle—as though an English folk musician had slept through twenty years of rock-and-roll and, on awakening, had been handed an electric guitar and shoved into a room full of exotic percussion instruments and a sixteen-track recorder.

For a time, "Tubular Bells" turned pop music on its head and an improbable six million Americans into fans. It was enthusiastically reviewed; there were even articles in *Time* and *Newsweek*. It also launched Virgin Records, a label that be-

100,000 copies in its first week—No. 1 in Germany and among the top five in England. But it went almost completely unnoticed in the U.S., where it takes two things to sell records: airplay and touring. A serious and decidedly uncommercial artist, Oldfield hadn't even *released* a single here since the cut version of *Tubular Bells* used in the movie *The Exorcist* made the charts, and the reclusive musician did not like to tour.

But that may all be changing now, as I discovered when I talked with Oldfield recently in New York. The focus of the Old-

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What is representative? That's not easy to define even for Oldfield himself. Asked to give a name to the kind of music he makes, he was somewhat at a loss.

"It's just me. It relates to hundreds of different sorts of music in different ways, every little bit of music that ever made me think, 'Oh, I like that'—English blues, English hard rock, a bit of bluegrass, Irish music, synthesizer music, classical music, even nursery rhymes and children's music."

All of these influences, and more, can be heard on "Five Miles Out," plus something that may surprise established Oldfield fans: lyrics. His previous albums have used almost no vocals, and what few there were tended to be more in the nature of another instrument—chants, singsong—or a narrative voice-over than conventional song lyrics. But why lyrics now—why not before?

"To write lyrics you've got to have something to write about. Well, this time I had something to write about: my airplane theme. That's what the album's all about. Every time I go up in a small plane something terrible happens. One engine stops, we go into a thunderstorm or snowstorm, or we're surrounded by fog."

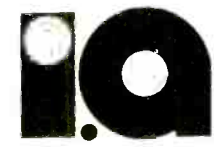
LYRICS or no, theme or no, except for *Family Man* and the title cut, "Five Miles Out" is characteristic Oldfield. It is filled with eclectic, inventive compositions played on an imposing array of acoustic and electronic instruments. Oldfield is a gifted melody writer, possibly because he is so open to influences, and he may be even more skilled at developing a melody—scoring it imaginatively and enriching it with harmony and embellishments. His pieces invariably build to powerful climaxes. It's an approach that is closer, at least structurally, to classical development or jazz improvisation than to rock, and it's an approach that sets Oldfield apart from most of contemporary songwriting. As he himself put it, "I heard a song on the radio the other day, and I thought, 'Hmm, now that's an interesting melody.' So what happens? They repeat the same tune over and over, the same way, twenty-five times. By the time the song was finished, it had gotten boring. That's lazy music making."

A hundred-and-five-stop tour is probably about as far as you can get from lazy music making, but it's no guarantee of success. I asked Oldfield if it would disappoint him if he never again saw the lightning strike as it did with "Tubular Bells."

"No, not really. Of course, it would be nice to hit it big again. But for now, I think, I just want to fill the concert halls. I'd be disappointed if we didn't do that."

—Mark Peel

MIKE OLDFIELD: *Five Miles Out.* Mike Oldfield (vocals, guitars, bass, keyboards); Maggie Reilly (vocals); Morris Pert (percussion, keyboards); Tim Cross (keyboards); Rick Fenn (guitars); other musicians. *Taurus II; Family Man; Orabidoo; Mount Teide; Five Miles Out.* VIRGIN ARE 37983, © AET 37983, no list price.



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THOUGH the fact is now commonly overlooked, the sweeping social movements in America in the mid-twentieth century that resulted in dramatic extensions of personal rights for blacks, women, and the young were carried on a tide of music as passionate as any of the chanted slogans heard during that era. Some of the constituents of that tide remain familiar to the public, particularly the folk song/sermons of Bob Dylan, chief troubadour of yesterday's young. Some have merged with the mainstream of popular music and are no longer individually distinguishable. Others are beginning to bubble up again for the subcultures that produced them.

a versatile singer-composer who has drawn from her own cultural roots to create new music that reverberates with the pulse of black gospel, work songs, and blues. As a student in Albany, Georgia, back in 1961 when the civil-rights movement swept her home town, Reagon became one of the four original Freedom Singers of the Student Non-violent Coordinating Committee, one of the sparks that drove the movement forward at rallies, in churches, and at public meetings. She went on to earn a Ph.D. degree in folklore and now serves as a specialist on the African diaspora at the Smithsonian Institution. Fortunately for us, she also continues to lend her powerful contralto to



Left to right: Evelyn Maria Harris, Ysaye Maria Barnwell, Yasmeen Bheti Williams, and Bernice Johnson Reagon

Sweet Honey in the Rock

Possibly the most remarkable group to draw from the Sixties tradition (and others far older) and forge music relevant to the current decade is Sweet Honey in the Rock, a quartet of black women who have come to be regarded as heroic figures in the steadily expanding field of so-called "Women's Music." Their work, however, should be a treat for all who appreciate fine singing.

Recordings by this tightly knit ensemble have not made the charts and are not likely to do so, but concerts in their home base of Washington, D.C., in New York City, and in farther outposts are sold-out affairs that take on the feel of a celebration. The group's strong bearing and straightforward presentation immediately inspire a warm response. While their lyrics address sensitive and controversial matters—grim reminders of the price paid by freedom fighters throughout the ages and of the infinite ironies of womanhood—they are sung to music enchanting in its sweetness.

They sing a cappella, accompanied at times only by the rhythmic punctuation of an African instrument—a beaded gourd called the shakere—played by their founder and leader, Bernice Johnson Reagon. She is

Sweet Honey in the Rock, joining Evelyn Maria Harris, Ysaye Maria Barnwell, and Yasmeen Bheti Williams.

"Good News" is the best of the group's three releases to date. It captures Sweet Honey in the Rock in live performance before an enthusiastic but polite audience. The blend of the four voices is flawless, and they can extend their ranges to duplicate deep instrumental sounds. Their marvelously robust spirit works a miracle of communication, the nectar of their harmonies sweetening the urgency of their messages. Songs of this sort used to be the province of political activists, but Sweet Honey in the Rock is gradually attracting the attention of a more general audience. And so it should: this music haunts the heart and tugs at the mind.

—Phyl Garland

SWEET HONEY IN THE ROCK: *Good News*. Sweet Honey in the Rock (vocals and instrumentals). *Breaths*; *Echo*; *Chile Your Waters Run Red Through Soweto*; *Oh Death*; *Good News*; *Biko*; *If You Had Lived*; *Oughta Be a Woman*; *On Children*; *Time on My Hands*; *Alla That's All Right*; *But*; *Sometime*. FLYING FISH 245 \$8.98.

by a man, Chris Butler. Butler writes like a techno-pop Fran Lebowitz. The tunes are just right for Donahue's edgy, exasperated vocals. They're played with so much spunk and sizzle that they'd be great rock even if they weren't so clever. My sure-fire cure for the blahs: uncap a chilled bottle and go cruising with the Waitresses. *M.P.*

ROBIN WILLIAMSON: *Songs of Love and Parting*. Robin Williamson (vocals, guitar, Irish harp, cittern, whistle, bagpipes, shawm, accordion, harmonium, percussion); other musicians. *Verses in Stewart Street; For Mr. Thomas; Fare Thee Well Sweet Mally; Return No More; Tarry Wool; For Three of Us*; and seven others. FLYING FISH FF 257 \$8.98.

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

Robin Williamson, who was one of the leading lights of the Incredible String Band, may in fact be an elf. They may be hiring an actor to pose for his cover photos. Just look at the list of instruments he plays here. And imagine a singing voice you'd hear from somebody who is neither frog nor prince but in the process of changing (the direction doesn't matter). Here Williamson does his various vocal and instrumental things to a batch of new songs he wrote that *sound* traditional, ethnically pure, even ancient. It's all fairly charming. You can quickly get enough of Williamson's voice, but the tunes are nice, if simple, and the instrumentals are a great relief from the likes of Christopher Cross. *N.C.*

COLLECTION

THE SECRET POLICEMAN'S OTHER BALL—THE MUSIC. Sting: *Roxanne; Message in a Bottle*. Jeff Beck and Eric Clapton: *'Cause We've Ended Up as Lovers; Farther Up the Road; Crossroads*. Bob Geldoff and Johnny Fingers: *I Don't Like Mondays*. Phil Collins: *In the Air Tonight; The Roof Is Leaking*. Donovan: *The Universal Soldier; Catch the Wind*. The Secret Police: *I Shall Be Released*. ISLAND 9698 \$8.98, © M5 9698 \$8.98.

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

Ah yes, another year, another Amnesty International benefit concert and record. Like the previous edition, this new "Secret Policeman's Ball" features an eclectic bunch of English pop stars, old and new wave, in settings expected and otherwise. Sting, of the Police, does a nice solo job on two of his group's best tunes, and Bob Geldoff and Johnny Fingers of the Boomtown Rats do an interesting cabaret turn on the Rats' *I Don't Like Mondays*. Also on hand are Genesis drummer Phil Collins and eternal space cadet Donovan, who are mildly charming, and English guitar legends Jeff Beck and Eric Clapton, whose duets must have looked better on paper than they actually sound here. The whole cast gets together at the end for a bash at a Dylan song, *I Shall Be Released*, with unsurprisingly ragged results. Still, it's all diverting and never less than pleasant, and part of the royalties will go to a worthy cause. *S.S.*

(Continued on page 89)

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Andy Freeberg/Retna

Dave Edmunds and Nick Lowe in Rockpile

Edmunds/Lowe

ALL right, all right, it wasn't like the Beatles' breaking up, the end of an era, or anything as momentous as that. But when Nick Lowe and Dave Edmunds broke up Rockpile, perhaps the best traditional rock band in the western world, there were more than a few tears shed—in my neighborhood, at least. Still, I figured that since they made brilliant solo albums before they got the band together, they would do the same after it folded. It turns out I was half right. Columbia has released new efforts by each

of the boys, and though one is a delight, the other is an unqualified snoozeroo.

Lowe's "Nick the Knife," I am sorry to report, is almost uniformly blah. There's nary a tune within earshot, the lyrics are tediously pedestrian without a hint of the expected wit and irony, and the production is so restrained as to be nearly nonexistent. A clue to the level of inspiration here is that *Heart*, the best song on the album (perhaps the only song), appeared on last year's Rockpile album in a vastly superior version.

The remake is a lame dub/reggae thing that fairly shrieks creative desperation. I remain a Nick Lowe fan, but I advise you not to waste your lunch money on this one unless you are a fanatical Anglophile (great cover art, though).

Dave Edmunds's "D. E. 7th" is, fortunately, up to snuff in just about every area: it has sharp songs, sharp arrangements, great singing. And it's great fun. There's the usual Edmunds mix of styles—a little rockabilly, a little blues, a little country, a little pop—but there are some new wrinkles, such as the oh-so-subtle whiff of Cajun that permeates the record (a nice version of Doug Kershaw's *Louisiana Man* makes it somewhat more explicit). There's also an unexpected (and terrific) Bruce Springsteen song that should have you hopping around your living room, a marvelous bit of neo-Everly Brothers froth (*Other Guys' Girls*), and the usual impeccable Chuck Berry cover. All in all, another fab gear set from the performer one writer tagged the World's Greatest Living Welshman, a claim I am not disposed to dispute after hearing this album. Act now.

—Steve Simels

NICK LOWE: *Nick the Knife*. Nick Lowe (vocals, guitar, bass); other musicians. *Burning; Heart; Stick It Where the Sun Don't Shine; Queen of Sheba; My Heart Hurts; Couldn't Love You (Any More Than I Do); Let Me Kiss Ya; Too Many Tears; Ba Doom; Raining Raining; One's Too Many (And a Hundred Ain't Enough); Zulu Kiss*. COLUMBIA FC 37932, © FCT 37932, no list price.

DAVE EDMUNDS: *D. E. 7th*. Dave Edmunds (vocals, guitar); other musicians. *From Small Things Big Things Come; Me and the Boys; Bail You Out; Generation Rumble; Other Guys' Girls; Warmed Over Kisses; Deep in the Heart of Texas; Louisiana Man; Paula Meet Jeanne; One More Night; Dear Dad*. COLUMBIA FC 37930, © FCT 37930, no list price.

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JAZZ



DOROTHY DONEGAN: *The Explosive Dorothy Donegan.* Dorothy Donegan (piano); Jerome Hunter (bass); Ray Mosca (drums). *I Just Want to Sing; Lover; St. Louis Blues; Wave; I Like the Likes of You;* and four others. PROGRESSIVE PRO 7056 \$8.98, © 7056 \$8.98.

Performance: **Solid hip-mover**
Recording: **Good**

Dorothy Donegan is one of several pianists—the late Hazel Scott was another—who, though capable of generating music to soothe the jazz-craving ears, more often played on the periphery, courted classical composers, boogied Bach, and wound up with performances more apt to please the Las Vegas crowd. I detect a bit of that frilly style on “The Explosive Dorothy Donegan,” an album recorded two years ago, but there is also an ample supply of good jazz meat on this bone.

Donegan has an impressive technique, and she can play with the fire—if not the individual stamp—of the late Erroll Garner. It is only when she gets carried away with crowd-pleasing trills and plunky bravura (as on *The Man I Love*) that my ears twitch. C.A.

DUKE ELLINGTON: *Duke Ellington 1941.* Duke Ellington and His Orchestra (instrumentals). *Take the “A” Train; West Indian Stomp; John Hardy’s Wife; Blue Serge; Chelsea Bridge; Bakiff; Moon over Cuba; Perdido; Five O’clock Drag; After All; Hot Chocolate (Cotton Tail); Raincheck; Solitude; Frankie and Johnny; Are You Sticking?; Jumpin’ Punks;* and sixteen others. SMITHSONIAN COLLECTION © DPM2-0492 two discs \$13.98 (plus \$1.25 postage and handling charge from Smithsonian Recordings, P.O. Box 10230, Des Moines, Iowa 50336).

Performance: **A rose is a rose . . .**
Recording: **Excellent transfers**

Duke Ellington’s most celebrated recordings of the Forties were made at the very beginning of the decade, but if the 1940 date that produced such classics as *Ko Ko* and *Jack the Bear* was a high point, other sessions yielded tracks that are not far behind. There is ample proof of that in “Duke Ellington 1941,” a two-record set that is part of the Smithsonian Institution’s continuing effort to release jazz recordings that are significant or rare and often both.

Combining fifteen of the band’s Victor recordings with fourteen selections made for a radio transcription service and two “Soundies” tracks (made for the day’s film jukeboxes), the album is a sequel to the label’s “Duke Ellington 1940” release (DPM2-0351), but it is not quite as rich. As

Ellington vintages go, 1940 was a better year, but 1941 could have been more pre-possessingly represented than it is in this set. For one thing, we could have done without the two soundtracks, which were clearly designed as accompaniments to films and seem to have been included only because they are rare. Also, a little duplication of material goes a long way, and with alternative takes of eight selections this album takes us a wee bit beyond the pleasure point. Even though Ellington did record the same material repeatedly, two versions never appeared on the same record. But no matter how you present him, Ellington is Ellington, and his music is something one cannot close one’s ears to. C.A.

RECORDING OF SPECIAL MERIT

TOMMY FLANAGAN: *The Magnificent Tommy Flanagan.* Tommy Flanagan (piano); George Mraz (bass); Al Foster (drums). *Speak Low; Change Partners; Old Devil Moon; Good Morning Heartache;* and four others. PROGRESSIVE PRO 7059 \$8.98.

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

The nimble fingers of Tommy Flanagan are just what a beautiful tune needs, and on the aptly named “The Magnificent Tommy Flanagan” eight such tunes get this enviable treatment. The moods and tempos vary, but sensitivity and imagination prevail throughout this well-chosen program of compositions that, with one exception, Thad Jones’ *Blueish Grey*, you are not likely to be hearing for the first time. The support from bassist George Mraz and drummer Al Foster is also most suitable for the occasion. C.A.

RECORDING OF SPECIAL MERIT

JOE HENDERSON/WOODY SHAW: *Jazz Patterns.* Woody Shaw (trumpet, flugelhorn); Joe Henderson (tenor saxophone); George Cables (electric piano); Ron McClure (bass); Lenny White (drums). *Lofty; Invitation; What’s Mine Is Yours.* EVEREST FS 363 \$5.98.

Performance: **Excellent**
Recording: **Good remote**

I don’t know the origin of this quintet session—though it obviously is a club date—and Everest’s sloppy packaging is not very illuminating, but I am hard put to suggest a better value for your album budget. The music is straightforward, uncluttered jazz of a fairly universal nature—inventive, swinging, hot, and enduring. Woody Shaw and Joe Henderson are electric (in the figurative sense), and the rhythm section is sparkling. What more could one ask? C.A.

RECORDING OF SPECIAL MERIT

ALBERTA HUNTER: *The Glory of Alberta Hunter.* Alberta Hunter (vocals); Gerald Cook (piano); Budd Johnson (tenor saxophone); Vic Dickenson (trombone); Doc Cheatham (trumpet); Billy Butler (guitar); Butch Miles (drums); Jimmy Lewis (bass). *Some of These Days; I Cried for You; Ezekiel Saw the Wheel; Sometimes I’m Hap-*

(Continued on page 91)

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OKEH RECORDS, a division of the General Phonograph Corporation, made its bow on the market at the end of World War I. The label's first two years were not particularly noteworthy, but a 1920 release by singer Mamie Smith carved out a permanent niche for it in the history of Afro-American music. The record was *That Thing Called Love* backed by *You Can't Keep a Good Man Down*, and it was the first commercial release by a black vocal soloist. The niche was enlarged a few months later when, encouraged by that success, Okeh went a step further and made the world's first blues record, *Crazy Blues*, with Mamie Smith and a black band.

For the next five decades, Okeh (the label was acquired in 1938 by Columbia, which had been one of its major competitors in the so-called "race records" field) continued periodically to make recordings of lasting interest to scholars of America's popular music. Some of those recordings, spanning the period 1927 to 1967, have now been issued in five Epic double albums that include a number of previously unreleased sides. Just why only forty of the label's fifty years are represented is not explained by the producers, and anyone familiar with the Okeh catalog will quickly find some glaring omissions, but the five sets are nevertheless worthwhile, a small start toward bringing into sharper focus the vague picture of the history of American popular music that remains in most people's minds.

ALTHOUGH the five sets have been broken down into as many categories, the walls of style are mighty thin. Thus, the set called "Okeh Soul" has tracks that could be interchanged with those on "Okeh Rhythm & Blues," and the latter title would not have seemed terribly out of place on "Okeh Chicago Blues." Also, I question the use of so many non-Okeh sides in a series that purports to be devoted to Okeh, and I find it inexplicable that the jazz set consists of selections made by only six artists during the period 1949 to 1954, passing over such classic Okeh jazz recordings as the Louis Armstrong Hot Five and Hot Seven sides in favor of a program of less memorable material. Okeh was the label on which Armstrong made his debut as a leader, and it was on Okeh that Bessie Smith made her last sides, but such milestones seem not to have been noticed by the producers (all seven of them) involved in this project. The most serious offender is Bob Porter, the compiler of the jazz set. Besides disregarding the concept of the whole series, Porter assembled its single most unimaginative and downright misleading part. Was it really necessary to include six tracks of Ahmad Jamal's slightly-beyond-cocktail piano? All right, so Arnett Cobb was playing fine tenor saxophone in the early Fifties, but eight cuts? And then there are three sides each by Wild Bill Davis (the organist, not Wild Bill Davison the cornettist) and Mary Ann McCall, four by Red Rodney, and four by Johnny Griffin—hardly a program that does justice to Okeh's jazz catalog, or, for that matter, to jazz itself.

The "Western Swing," "Soul," and

"Rhythm & Blues" sets are far more representative and better thought-out, though one might question the criteria used by producers Michael Brooks and John Morthland to determine what constitutes "western swing." If, for example, the Goofus Five version of *Hesitation Blues* belongs in that category, then so does most of Bix Beiderbecke's output. Of the five albums, "Rhythm & Blues" and "Chicago Blues" come closest to fulfilling the promise inherent in both the series and album titles, but all five sets contain things of value. Though marred by inconsistent packaging, inexcusable omissions, and inexplicable inclusions, Epic's Okeh series warrants any serious collector's attention.

—Chris Albertson



OKEH JAZZ. Arnett Cobb: *Smooth Sailin'*; *Walkin' Home*; *Jumpin' the Blues*; *I'm in the Mood for Love*; *Whispering*; *Open House*; *Lil Sonny*; *The Shy One*. Little Johnny Griffin: *For Dancers Only*; *Flyin' Home*; *Chicago Riffin'*; *Till We Meet Again*. Red Rodney: *Dig This Menu Please*; *Red's Mambo*; *Honeysuckle Rose*; *Buckle My Shoe*. Ahmad Jamal: *The Surrey with the Fringe on Top*; *Will You Still Be Mine*; *Aki & Ukthay (Brothers & Sisters)*; *Billy Boy*; *Ahmad's Blues*; *A Gal in Calico*. Wild Bill Davis: *Azure Te*; *Rough Ridin'*; *April in Paris*. Mary Ann McCall: *Money Is Honey*; *I Want a Big Butter and Egg Man*; *On Time*. EPIC © EG 37315 two discs, no list price.

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OKEH RHYTHM & BLUES. Smiley Lewis: *I'm Coming Down with the Blues*; *Tore Up*. Chuck Willis: *Lawdy Miss Mary*. Big Maybelle: *Whole Lotta Shakin' Goin' On*; *Stay Away from My Sam*; *New Kind of Mambo*. Screamin' Jay Hawkins: *I Put a Spell on You*. Titus Turner: *Big Mary's*; *Christmas Morning*; *Don't Take Everybody to Be Your Friend*. Larry Darnell: *What More Do You Want Me to Do*. The Ravens: *Gotta Find My Baby*; *Midnight Blues*; *My Baby's Gone*. Johnnie Ray: *Cry*. The Sandmen: *Somebody to Love*. The Marquees: *Hey Little Schoolgirl*. Billy Stewart: *Baby, You're My Only Love*. The Schoolboys: *Please Say You Want Me*; *Ding-a-Ling Coo Coo Mop*. The Sheppards: *Pretend You're Still Mine*. The Treniers: *Say Hey (The Willie Mays Song)*. Paul Gayten: *Don't Worry Me*; *It Ain't Nothin' Happening*. Little Joe and the Thrillers: *Peanuts*. Doc Bagby: *Dumplin's*. Red Saunders: *Hambone*. Little Richard: *Get Down with It*. EPIC © EG 37649 two discs, no list price.

py: *The Love I Have for You; You Can't Tell the Difference After Dark*; and five others. COLUMBIA FC 37691, © FCT 37691, no list price.

Performance: **Glorious indeed**
Recording: **Excellent**

Alberta Hunter, at eighty-seven a few years older than the twentieth century itself, is still rollicking along in her matchless way as if the rocking chair had never been invented and her professional debut had been in 1970, not 1907. She's had the kind of life that would make a terrific movie, and if you want to learn more about it I suggest you read Chris Albertson's lively liner notes for this album. On it Hunter is still very much her old low-down self, as she handily proves with *You Can't Tell the Difference After Dark* and *Some of These Days*, and she's equally adept at sustaining a strongly dramatic and bitter mood, as in *I've Had Enough (Alberta's Blues)*, the tale of a woman who dreams of leaving the brutal, battering man she's been living with. But perhaps she's best of all in a couple of great old standards, *I Cried for You* and *Wrap Your Troubles in Dreams*, in which she shows the kind of innate style and grace that defines a champion in any field. Alberta Hunter's field happens to be singing. Lucky us. P.R.

RECORDING OF SPECIAL MERIT
MORGANA KING: *Looking Through the Eyes of Love*. Morgana King (vocals); in-

strumental accompaniment. *Through the Eyes of Love; Gentleman Friend; Time After Time; I Wished on the Moon; Love Is Sweeping the Country; Imagination/I'm Old Fashioned*; and three others. MUSE MR 5257 \$8.98.

Performance: **King is still queen**
Recording: **Very good**

Breathe easy, folks—Morgana King hasn't lost her touch; she is still the queen of song stylists. She still takes over other people's ballads and makes them her personal property, wringing out of a song more than you may ever have suspected was in it. And she still has the voice—that true, distinctive, lingering voice—to match her style. King likes to deliver such old standbys as *Love Is Sweeping the Country* and *I'm Old Fashioned*, but by the time she's through you would scarcely recognize these old friends. She dresses them in tempos they never wore before (the Gershwin standard suddenly turns into a slow, smoldering torch song). She won't be hurried; she takes her time, and a ballad is all the better for it. She is accompanied here by the Composers String Quartet and a group of other players who have backed her many times and whose playing fits comfortably with her voice. Don't take my word for it—listen to her sing *Lilac Wine* and hear for yourself. It's the only kind I drink now. P.K.

TANIA MARIA: *Taurus*. Tania Maria (vocals, keyboards); instrumental accompaniment. *Tranquility; Cry Me a River; Imag-*

ine; Eruption; and three others. CONCORD JAZZ PICANTE CJP-175 \$8.98.

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

Brazilian singer/pianist Tania Maria is no newcomer, though many will probably be discovering her talent for the first time with "Taurus." Yet it is the eleventh album in a recording career that began when she was only fourteen, and it is her second for Concord Jazz. I find it slightly distracting when Tania Maria sings in English because her pronunciation is very bad, but she sounds fine in Portuguese, and she is absolutely stunning when she simply lets her voice become a wordless instrument. C.A.

RECORDING OF SPECIAL MERIT

DAVE MCKENNA TRIO: *Plays the Music of Harry Warren*. Dave McKenna (piano); Bob Maize (bass); Jake Hanna (drums). *Nagasaki; 42nd Street; This Heart of Mine; Carnival; My Heart Tells Me*; and four others. CONCORD JAZZ CJ-174 \$8.98.

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

Composer Harry Warren died in September 1981, a month after this album was recorded. The Dave McKenna Trio's album of interpretations of some of his best-known works is a very fitting memorial.

McKenna, who has received some much-overdue attention lately, plays in a percussive and pulsating style that animates the

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material, a style that has not been heard on a regular basis for some twenty years. Most jazz pianists are more interested in esoteric—and often egocentric—forms. Carefully schooled, they play like music theorists. Their left hands are chordal machines while their right hands skitter among the treble keys like mice in search of toothsome crumbs. They sound off-balance, one-handed, and stale.

McKenna has been around for a while, and he still *plays* with both hands. Like any “old-fashioned” pianist, he hits the keyboard to dig the gold out of the compositions he plays, becoming inspired by the possibilities inherent in good material. With Warren’s works, he has hit a mother lode. His attacks are startling, his interpretations fluid, tasteful, and graceful. He’s given excellent support by bassist Bob Maize and drummer Jake Hanna, and the recording, as is usual with Concord Jazz, is clean and clear. A real treat. *J.V.*

CHARLIE PARKER: *One Night in Washington*. Charlie Parker (alto saxophone); orchestra. *Fine and Dandy; Thou Swell; These Foolish Things; Roundhouse; Light Green;* and four others. ELEKTRA/MUSICIAN E1-60019 \$8.98, © E4-60019 \$8.98.

Performance: **Worthy find**
Recording: **Surprisingly good**

At this point, twenty-seven years after his death, *any* new-found recording by Charlie Parker has to be regarded as important, but “One Night in Washington” would have belonged in that category even if it had been released in 1953, the year it was made.

Lil Armstrong often recalled the first time she played with King Oliver’s band and asked him which key to play in. “Never mind, gal,” he replied, “just hit it!” Then Oliver gave the down beat and the band was off, all its illustrious members playing in the same key. “I hit as much of the keyboard as I could, then quickly stepped into the right key,” Lil said. Charlie Parker had to do a little bit of the same on this date. There are spots where the arrangements modulate into a different key, catching Parker off guard, but mostly it is not the difficulty of the arrangements themselves but his unfamiliarity with them that has the great alto saxophonist playing a musical guessing game. There was no time for rehearsals, so only the orchestra knew the charts, resulting in confusion that only a master like Parker could save from becoming an unintended parody. Yes, he makes early and late entrances here, and he even plays over passages that were clearly not intended to carry solos, but this is far from being a comedy of errors; what Parker has to say can really stand alone. It would have been nice to have had it all coordinated—the charts were, after all, written by such experts as Gerry Mulligan, Johnny Mandel, and Al Cohn—but let us consider ourselves lucky to have this unexpected Parker recording at all.

The album includes one non-musical track, an edited interview with trumpeter Red Rodney, who talks about Charlie Parker from his first-hand experience. Oddly enough, the sound of the interview—which, presumably, was expressly recorded for this album—is very poor, unlike the rechanneled music tracks. *C.A.*

AROUND our house, when I was growing up, *Naughty Marietta* was the 1935 MGM movie. My mother, who had somehow got it into her head that she was really Jeanette MacDonald, used to do the housework humming *Ah, Sweet Mystery of Life* and waving to herself in the hall mirror as she passed, and we practically wore out the *Italian Street Song* playing it on our wind-up Victrola. (My father preferred *Tramp, Tramp, Tramp, the Boys Are Marching*.)

Well, it turns out that that wasn’t really the Victor Herbert musical at all, but an adaptation with only two of the original characters intact, most of the score cut and rearranged by Herbert Stothart, and only the most popular melodies left in. I know this now because the Smithsonian Institution has gone to a good deal of trouble to prepare the first complete recorded performance of the original score. The dazzling digitally mastered two-disc set is musicologist Frederick S. Roffman’s attempt to recreate the original New York performance on November 7, 1910, and the results are nothing short of a revelation.

From the time the opening chorus of vendors arrives in the Place d’Armes in New Orleans selling their fruit and flowers and parakeets (and anticipating the street cries of *Porgy and Bess* by a quarter of a century), the music is a continual treat for the ear. Herbert, who had a thorough grounding in classical composition in Germany, was not only a master melodist but a marvelous orchestrator, and the story of Marietta—one of the “casquette girls” sent by the King of France to find a husband in the New World, though it turns out she’s really a closet countess who has run away from her rich family in Italy—afforded him all kinds of musical opportunities. Of course there’s *Ah, Sweet Mystery of Life* and the *Italian Street Song* and *I’m Falling in Love with Someone*, but, sticky as these are, they turn out to have life left in them when sung as written. *I’m Falling in Love*, for example, ends in a spectacular high E from tenor Leslie Harrington, who plays Captain Richard Warrington, the adventurer who falls in love with Marietta and wins her in the end (in the movie the part was taken by Nelson Eddy, a baritone). Even the *Italian Street Song*, with the whole company led by the brilliant soprano of Judith Blazer in the title

role, is exhilarating to hear as the composer conceived it.

Then there’s Étienne Grandet, the governor’s social-butterfly son, who lusts after Marietta’s family wealth and secret social position; he gets to sing *You Marry a Marionette*, which gives Wayne Turnage an opportunity to apply his superb baritone to a tidy tune with amusing lyrics. Mezzo Dana Krueger is excellent too as Lizette, another casquette girl, in the ballad *The Sweet By and By*. The convoluted plot also involves a quadroon named Adah, and in that role mezzo-soprano Elvira Green has her big moment in the shamelessly regional *Neath the Southern Moon*.

Naughty Marietta thus turns out to be a real operetta with wonderfully worked-out finales in both acts, not just a string of sentimental melodies. The album makes for delightful listening, especially in the ultra-sharp focus of digital sound, which is particularly kind to the chorus and the big orchestral effects. It comes with a twenty-page booklet replete with photographs of the original 1910 production, detailed annotation by Mr. Roffman, and a complete synopsis of the action.

Historical interest aside, it’s Herbert’s music that makes *Naughty Marietta* worth reviving on records, just as it was successfully revived on stage by the New York City Opera in 1978 (using an edition also prepared by Mr. Roffman). Even in 1910, when the rest of the critics were raving, an anonymous reviewer in the *New York Post* had the perspicacity to call the book “an incomprehensible hodge-podge of rot.” Then again, less perspicaciously, he didn’t like the music either. —*Paul Kresh*

HERBERT: *Naughty Marietta*. Judith Blazer (soprano), Marietta d’Altena; Leslie Harrington (tenor), Captain Richard Warrington; Elvira Green (mezzo-soprano), Adah; Wayne Turnage (baritone), Étienne Grandet; others. Catholic University of America A Cappella Choir; Millennium Chamber Orchestra, James R. Morris cond. SMITHSONIAN COLLECTION ◊ N 026 two discs \$29.98 (plus \$1.10 postage and handling charge from the Smithsonian Collection, P.O. Box 10230, Des Moines, Iowa 50336).

THE SPEAKEASY JAZZ BABIES. John Bucher (cornet); Joe Licari (clarinet); Dick Dreiwitz (trombone); Barbara Dreiwitz (tuba); Dick Miller (piano); Marty Grosz (guitar, vocals); Carmen Mastren (guitar); Richie Barron (drums); Betty Comora (vocals). *Mahogany Hall Stomp; I'm in the Market for You; Save It, Pretty Mama; Hard Hearted Hannah; Every Time I Fall in Love; Once in a While; Everybody Loves My Baby*; and five others. **SPEAKEASY JAZZ BABIES SJB-100 \$7.98** (plus \$1 postage and handling from Speakeasy Jazz Babies, 360 Lookout Avenue, Hackensack, N.J. 07601).

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

I first heard a contingent from this long-lived band in 1969 when they played Monday-night jam sessions at a warm beer joint on Grove Street in Greenwich Village. I remember being impressed by pianist Dick Miller, who played percussive solos as if he were a boxer with a kayo right-hand punch, petite tuba player Barbara Dreiwitz, who was the same size as her instrument but could make it miaow or moo, and trombonist Dick Dreiwitz, who interpolated legato runs *à la Bix Beiderbecke*, not the easiest thing to do on a trombone.

I was again most impressed by those three in the present line-up, though I also admire John Bucher's zestful cornet, Carmen Mastren's tasteful guitar, Richie Barron's lighthearted drumming, and Joe Licari's fluid clarinet. This first album by the group, on their own label and with exceptionally clean and well-defined sound, unfortunately loses momentum with the vocals, two by guest guitarist Marty Grosz and four by resident singer Betty Comora. I don't disagree with Grosz's choices—*I'm in the Market for You* and *From Monday On*—but both are presented as archive pieces. Betty Comora sings with professional glow and glee but gives the impression that she's auditioning for a supper-club act. Aside from those reservations, this is a dandy album. *J.V.*

RECORDING OF SPECIAL MERIT

FATS WALLER: *The Complete Fats Waller—Volume III, 1935-1936.* Fats Waller (vocals, piano, celeste); vocal and instrumental accompaniment. *Loafin' Time; A Sweet Beginning Like This; Got a Bran' New Suit; I'm on a Seesaw; Thief in the Night; When Somebody Thinks You're Wonderful; I've Got My Fingers Crossed; Spreadin' Rhythm Around; A Little Bit Independent; You Stayed Away Too Long; Sweet Thing; Fat and Greasy; Functionizin';* and nineteen others. RCA/BLUEBIRD © AXM2-5583 two discs \$11.98, © AXK2-5583 \$11.98.

Performance: **Wonderful**
Recording: **Fine restoration**

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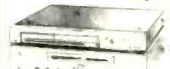
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were consistently able to play at the top of their form.

The point has often been made (I did so in my biography of Waller) that Fats was compelled to record some inferior material, but this particular collection is graced by such first-rate songs as *Thief in the Night* and *Spreadin' Rhythm Around*. Waller's first manager, Phil Ponce, is almost totally forgotten, but they collaborated on *Sugar Rose* (an obvious sequel to *Honeysuckle Rose*, the rights to which Waller foolishly sold in 1929), and it was Ponce who urged Fats to front a big band for touring. Three sides were made in 1935 with the larger group. *I Got Rhythm* was first issued in the late Sixties as part of Mike Lipskin's series of Waller reissues on RCA's Vintage label, but the other two, *Fat and Greasy* and *Functionizin*, are issued here for the first time. The former is a hilarious example of Harlem humor, and the latter, entirely instrumental and written by Waller, contains quotations from his earlier hit *Squeeze Me*. They were unreleased at the time because RCA feared they might hurt Waller's sales in the combo format, and hearing them now is for me a long-awaited pleasure.

The other "vault" item is a 1936 test pressing, *Stay*, written by Elizabeth Handy, who sings on it, with lyrics by Waller's long-time collaborator Andy Razaf. It isn't one of Razaf's better efforts, and Miss Handy's vocal is cautious and proper. But Waller's spoken interjections and answering vocal let the gas out of the bag, as you might expect. After listening to this collection, you will undoubtedly want more. Be assured you'll get it. Fats cut four *hundred* sides for RCA, so there's a lot to look forward to. *J.V.*

WEATHER REPORT. Weather Report (vocals and instrumentals). *Current Affairs*; *N.Y.C.*; *Dara Factor One*; *When It Was Now*; and three others. COLUMBIA/ARC FC 37616, © FCT 37616, © FCA 37616, no list price.

Performance: **Up to standard**
Recording: **Excellent**

This album's strengths are the things that are always strong about Weather Report: sophisticated structures that are deceptively spontaneous-sounding, supremely accomplished playing, and a vision of jazz that re-thinks and disassembles its components (rhythm, melody, and harmony) and puts them back together seamlessly in a totally unexpected way. "Weather Report" is not one of the group's great albums, which may explain why they didn't bother giving it a title. It's a fine technical performance, but it lacks the one or two really memorable songs that make you go back to "Sweet-nighter" or "Mysterious Traveller" or "Heavy Weather" while "Black Market" or "Mr. Gone" gather dust. The highlights, such as they are, are *Volcano for Hire*, a bubbling piece that suggests someone fleeing an eruption more than hiring one, and *When It Was Now*, the sole Wayne Shorter composition, which is grounded on a synthetic melody line that sounds as if it had been prerecorded and then somehow turned inside out and upside down. For the most part, though, this is an album of bright moments, not brilliant compositions. *M.P.*

(Continued on page 97)

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THEATER • FILMS

THE BORDER (Ry Cooder). Original-soundtrack recording. Ry Cooder, John Hiatt (vocals, guitar); Jim Dickinson (piano, vocals); Sam Samudio (vocals, organ); other musicians. BACKSTREET BSR-6105 \$7.98, © BKSC-6105 \$7.98.

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

Ry Cooder wrote *most* of what you get here, and his guitar is prominent in it, as are several musicians who helped him on Tex-Mex forays in the past. The music is a mixture of raucous and quiet evocations of borderline life. It is more effective as a listening record than most soundtrack albums, because it would be a second one even if there were no movie. It is fairly well balanced, and some of the guitar work on the quiet songs (each side ends with a lovely one, *Rio Grande* and *Nino*) is just exquisite. But it also obviously served the picture; this sounds like music that really belongs along the border, not like something just written by a privileged kid from West L.A. It's lacking a little in contrast, but it does do its job. *N.C.*

BRIDESHEAD REVISITED (Geoffrey Burgon). Original television score. Orchestra, Geoffrey Burgon cond. CHRYSALIS CHR 1367 \$8.98.

Performance: **Shy and sweet**
Recording: **Excellent**

The painstaking adaptation for television of Evelyn Waugh's celebrated 1945 novel *Brideshead Revisited* was such a compelling experience that most people I know in New York kept their phones firmly off the hook when the episodes were broadcast. The story of the middle-class Charles Ryder's love affair with an aristocratic Catholic family and their great country house, Brideshead Castle, the series brilliantly portrayed upper-class life in England from the early Twenties to the close of World War Two. The series had an original musical score by Geoffrey Burgon, the highlights of which are now available on this record with the composer conducting. There's a Delian quality to this modest music, which never called much attention to itself as the episodes unfolded but was always helpful in propelling the action. It is presented here in the form of a suite of miniatures, each carefully crafted and suffused with a kind of deliberate diffidence. The wistful main theme especially will evoke pleasant memories of the series for those who have seen it. Even without such associations, those who like the pastoral music of Delius, Box, and Vaughan Williams should enjoy Burgon's little musical essays. *P.K.*

(Continued overleaf)



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Craig Lucas and Suzanne Henry

“Marry Me a Little”

STEPHEN SONDHEIM's most recent musical, *Merrily We Roll Along*, was born and died on Broadway in a matter of hours, but *Marry Me a Little*, an entertaining little revue featuring songs dropped from earlier Sondheim shows, got off to a healthy start in an off-off-Broadway playhouse in 1980 even as *Sweeney Todd* was receiving most of the public's attention. It went on to a solid run at an off-Broadway theater on Seventh Avenue South, and now RCA has issued an original-cast recording that preserves these rescued musical treasures for posterity.

Marry Me a Little doesn't have a plot, but it does have a premise: a lonely man and woman, living in studio apartments one above the other in New York City, who meet in each other's dreams but never in reality. For the revue, commissioned by the Production Company, co-star Craig Lucas persuaded Sondheim to open his trunk and liberate seventeen unheard songs. Lucas and Suzanne Henry are perfectly cast as the non-couple, and they deliver all the songs with immense panache.

Bright songs they are, too, some acerbic in the familiar Sondheim manner, all well worth rescuing from oblivion. Some were salvaged from Sondheim's early score for *Saturday Night* (originally *Front Porch in Flatbush*), a musical that never even made it to the stage; others were dropped for a variety of reasons from such hits as *A Funny Thing Happened on the Way to the Forum*, *Anyone Can Whistle*, *Company*, *Follies*, and *A Little Night Music*.

Even when the tunes fail, there are still the marvelous lyrics to savor. *Two Fairy Tales*, for example, cleverly counterpoints lines for the woman upstairs, who sings of a princess, with those of the man below, who tells of a knight who slays the dragons of Falsehood, Lust, and Greed (the exchange was originally intended for Henrik and Anne in *A Little Night Music*). On the wry side are *It Wasn't Meant to Happen* (an early casualty from *Follies*), *The Girls of Summer* who "get undone/By a touch of sun/In June,/Plus a touch of the moon," and *Uptown, Downtown* with its schizoid heroine Harriet who "sits at the Ritz with her splits of Mumm's" but longs to have "a Schlitz in her mitts down in Fitzroy's bar" in Greenwich Village.

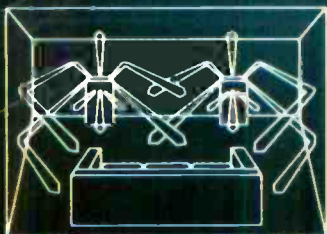
In a few cases Sondheim's words and music meld perfectly in a song that touches the heart as well as the head. Here there's the wonderful *Silly People*, dropped from *A Little Night Music* during out-of-town previews (because it didn't fit the character who sang it, according to producer Harold Prince), and *There Won't Be Trumpets*, written for *Anyone Can Whistle*. In all, the show is a delight, the recorded sound is excellent, and complete texts of the songs are provided so you won't have to miss the wit of a single rhyme.

—Paul Kresh

MARRY ME A LITTLE (Stephen Sondheim). Original-cast recording. Suzanne Henry, Craig Lucas (vocals); E. Martin Perry (piano). RCA ABL1-4159 \$9.98.

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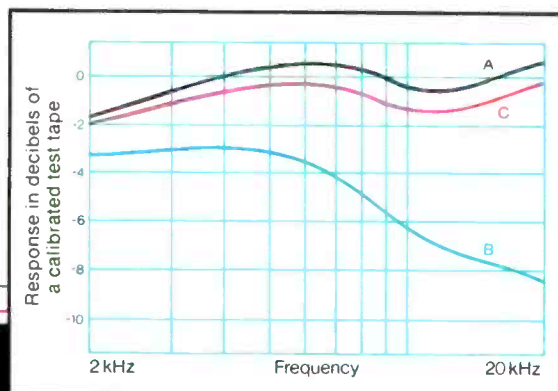
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