Stereo Review.

HI-FI READOUTS: they let you see what you hear

FIRST LAB TEST: The Revolutionary New Carver M-400 Power Amplifier

plus ...

- Scott Model 166 Speaker
- Pickering XSV/4000 Cartridge
- Technics RS-M24 Cassette Deck
- Yamaha P-750 Turntable

TONIO K. The voice of protest is heard again in the land

DISC SPECIALS:

Carly Simon • Al Di Meola Elvis • Waylon Carl Ruggles • Bohuslav Martinů De Larrocha's Mozart Tennstedt's Mahler

262940 SIT BOBILE99 G41J NQVBO



Conventional kazoo has paper cone.

Introducing the first low distortion speaker. The Pioneer HPM Polymer Graphite. With up to three times less distortion than conventional paper speakers.

Most high fidelity speakers today offer you little more than kazoo technology. And the paper cone you find in most conventional speakers is proof of it. Just as the paper cone in a conventional kazoo creates a buzzing noise, the paper cone in most conventional speakers creates distortion.

At Pioneer we've developed our new HPM speakers with Polymer Graphite cones instead of paper. This new material sets new lows in speaker distortion and new highs in speaker technology.

What good are low distortion components when you have high distortion speakers.

Most people believe that to get the most out of a recording all they need is components that give them the least amount of distortion.

But expensive components mean little when attached to conventional speakers. Even components with an amazingly low level of distortion can't be appreciated when you're listening to them on speakers that most likely have ten times the amount.

So Pioneer engineers created Polymer Graphite, a new speaker cone material that gives you up to three times less distortion than paper.

Polymer Graphite reproduces sound. Paper and metal create it.

The perfect cone material should be rigid enough to significantly reduce distortion. It should be lightweight. And high in internal loss. So it sustains no vibrations and allows no artificial coloring to your music.

Unfortunately, these three attributes are not commonly found in any one speaker.

Paper cones are not rigid enough to keep from flexing. They tend to break up at high listening levels. As they alter their shape, they alter your music. What's more, over the years, their performance can deteriorate.

Metal cones, on the other hand are rigid enough to lower distortion. And can be light enough for quick response. Unfortunately they tend to ring and add their sound to your music.

Pioneer's new HPM speakers have woofer, tweeter and midrange made of Polymer Graphite.

Because Polymer Graphite is rigid, the wave that comes out of your speaker cone is virtually identical to the signal that went into it.

Because it's so lightweight, it's responsive enough to accurately reproduce transients for an added sense of realism.

And because it's acoustically dead you'll hear nothing more and nothing less than music the way it was intended to be heard.

But that's not all. Pioneer's new HPM Polymer Graphite speakers have a horn loaded, High Polymer supertweeter that expands frequency response an additional octave to 50,000 hertz. A computer designed bass reflex cabinet. And much more.

So if you're in the market for high fidelity speakers, you can buy a paper speaker and get kazoo technology. Or you can buy a Polymer Graphite speaker and get Pioneer technology.

WPIONEER® We bring it back alivé. Circle No. 66 on Reader Service Card. Pioneer HPM Polymer Graphite."

Pioneer's new speaker has polymer graphite cone.

© 1980 U.S. Pioneer Electronics Carp. 85 Oxford Drive. Moonachie, N.J. 07074 Conventional speaker has paper cone.

Reel Versatility At a Cassette Deck Price. The New Realistic[®] The Upgrader.

Upgrading is for music lovers who can hear the difference. For them, Radio Shack has

made "the difference" affordable ... for example 30-28,000 Hz (\pm 3 dB) frequency response, extended dynamic range, low distortion, low noise — you get it all in the easy-to-be-creative open reel format. Tape handling is no problem because the TR-3000 is totally logic controlled. A pushbutton-activated solenoid system controls all tape movement — you can switch functions instantly, without tape spills or snarls. Pause and mute controls even let you edit, electronically, as you record.

The TR-3000 has three motors. A precision servo-controlled capstan motor reduces

wow and flutter to less than 0.06% WRMS. And two high-torque reel motors maintain constant tape tension for smooth, fast winding. Separate play, record and erase heads give you "off-thetape" monitoring. Individual mike and line input controls work like a built-in mixer. High/low bias and EQ switches for an optimum match with any tape. 7½ and 3¾ ips speeds. And lots more. Realistically priced at only \$499.95.* Check its superb sound and specs at one of our 7000 locations today!



FORMERLY HI FI/STEREO REVIEW

ŵ

(ISSN 0039-1220)

OCTOBER 1980 • VOLUME 45 • NUMBER 4

. The Equipment –

NEW PRODUCTS Roundup of the latest audio equipment and accessories		13
AUDIO QUESTIONS AND ANSWERS Digital Dilemma, Hum Loss, Stereo-AM Rebuttal	LARRY KLEIN	
AUDIO BASICS Books for Beginners		24
AUDIO/VIDEO NEWS CBS Mastersound	David Ranada	
TAPE TALK Better Open Reel?, Four-track Mono Cassettes?, Timer Tricks	CRAIG STARK	
TECHNICAL TALK An Important New Power-amplifier Design	Julian D. Hirsch	
EQUIPMENT TEST REPORTS Hirsch-Houck Laboratories test results on the Scott Model 166 speaker, Carver M-400 power amplifier, Pickering XSV/4000 cartridge, Technics RS-M24 cassette deck, and Yamaha P-750 turntable	Julian D. Hirsch	40
HI-FI READOUTS Now you can actually see how your system is doing	Ivan Berger	64
THE SUMMER CONSUMER ELECTRONICS SHOW: A FOOTM Return of the Music Systems		

The Music

TONIO K. A bit late in the day, but we have a new pop-music soc ROUSON'S KEYBOARDS	rial critic
BEST RECORDINGS OF THE MONTH	78 Al Di Meola: "Splendido Hotel"
POPULAR DISCS AND TAPES"One Mo' Time"85Twenty-five Years of Elvis Presley86Dan Hill: "If Dreams Had Wings"88Doobie Brothers: "The Captain and Me"90Music Man Waylon Jennings92	84Emmylou Harris: "Roses in the Snow"
POP ROTOGRAVURE	
CLASSICAL DISCS AND TAPE 109 Choral Triumph for Digital 109 Tennstedt's Mahler Ninth 110 De Larrocha: "Mostly Mozart Volume 4" 114	108 Zelenka: Six Trio Sonatas

The Regulars -

BULLETIN	
SPEAKING OF MUSIC	WILLIAM ANDERSON
LETTERS TO THE EDITOR	
INSTALLATION OF THE MONTH	
THE POP BEAT	
AD VERTIGERG INDEX.	

COVER: Frederic Marvin

COPYRIGHT © 1980 BY ZIFF-DAVIS PUBLISHING COMPANY. All rights reserved. Stereo Review. October 1980, Volume 45, Number 4. Published monthly by Ziff-Davis Publishing Company. Editorial and Executive Offices at One Park Avenue, New York, New York 10016; Telephone: 212 725-3300. Philip B. Korsant, President; Albert S. Traina, Vice President; Selwyn Taubman, Treasurer; Bertram A. Abrams, Secretary. Also publishers of Boating. Car and Driver, Cycle, Fly Fisherman, Flying, Popular Electronics, Popular Photography, Psychology Today, Skiing, Sport Diver, Stereo Directory, and Tape Recording & Buying Guide. One-year subscription rate for the United States and its possessions, 59-98; Canada, \$10.98. All other countries, one-year subscription rate \$14.98, cash orders only, payable in U.S. currency. Controlled-circulation postage paid at Glasgow, Kentucky 42141. Authorized as second-class mail by the Post Office Department, Ottawa, Canada, and for payment of postage in cash. SUBSCRIPTION SERVICE: Forms 3579 and all subscription correspondence should be addressed to Stereo Review. Circulation Department, P.O. Box 2771. Boulder, Colorado 80323. Please allow at least eight weeks for change of address. Include old address as well as new-enclosing if possible an address label from a recent issue. PERMISSIONS: Material in this publication may not be reproduced in any form without permission. Requests for permission should be directed to Jerry Schneider, Rights and Permissions, Ziff-Davis Publishing Company, One Park Avenue, New York, New York 10016.

Give your cartridge more than The Finger!

Give it Stylus Care With the new Discwasher SC-2 System.

The famous SC-1 stylus brush (standard of the record and hifi industries) now has a synergistic fluid called SC-2.





Inspection Mirror

SC-2 Fluid enhances and speeds cleaning and yet protects diamond adhesives, cartridge mounting polymers and fine-metal cantilevers against the corrosive effects of many other "cleaners". The Discwasher SC-2 System. Stylus care

you can finger as clearly superior.

SC-2 Stylus Care System





1407 N. Providence Rd., Columbia, Missouri 65201 CIRCLE NO. 19 ON READER SERVICE CARD



Edited by William Livingstone

LUCIANO PAVAROTTI FOR PRESIDENT was the theme of a London Records ad aimed at dealers, but public response to such slogans as The People's Voice and Check His Records was so great that London could not meet the demand for campaign buttons and streamers. Unfortunately, his foreign birth (not his deals with an Anglo-German record conglomerate) disgualifies the tenor for the job of President of the United States. His albums "<u>O Sole Mio</u>" (OS 26560) and "Pavarotti's Greatest Hits" (PAV 2003/4) are among London's all-time best sellers.

♥ VIDEOTAPABLE MUSIC PROGRAMS ON PBS this month include the Verdi Requiem in Exxon's Live from Lincoln Center series on October 22 at 8:00 p.m. Zubin Mehta will conduct the New York Philharmonic, and soloists will be Montserrat Caballé, Bianca Berini, Michael Svetlev, and Martti Talvela. Check local PBS stations for stereo simulcast information.

♥ REAL ESTATE AND INTERNATIONAL STARS. Liverpool, home town of the Beatles, has rejected a proposal to name streets for them. Instead, a Liverpool home for old people will be named for Paul McCartney, 38, who, like George Harrison, still lives in Gt. Britain. Ringo Starr has digs in California, and John Lennon, now a New York cattle baron, lives at the Dakota, a classy apartment house where Lauren Bacall, Rex Reed, and Rosemary's Baby also hang their hats. The Dakota cited its problems with Lennon's groupies when it turned away Billy Joel this year.

• UNPACK THOSE LAMÉ NEHRU JACKETS! The psychedelic revival is the latest splash in the British New Wave. Hot on the heels of England's Psychedelic Furs (the group) comes news that CBS has signed Roky Erickson, former lead singer with the Sixties cult band the 13th-Floor Elevators. Erickson's new band, Alien, is said to have a science fiction slant. Their first album, "Alien," is out in England, and the first single, due here momentarily, is <u>Creature with the Atom Brain</u>. ● THE COMPACT PORTABLE VIDEO RECORDER introduced by Technicolor Audio-Visual is claimed to be the lightest unit of its kind on the market. It measures 4½ x 9¼ x 3 inches and weighs only 7¼ pounds. Designed for use with a standard video color camera, the unit records picture and sound on ¼-inch tape in a cassette slightly larger than an audio cassette. Aimed at the home-movie market, the VCR will record up to thirty minutes on one cassette. Price: \$995. The tapes cost \$8.95.

SALES OF HOME VIDEO TAPE RECORDERS so far this year indicate that the video-equipment industry is recession resistant. According to figures from the Electronic Industries Association, in the first thirty weeks of 1980 sales of HVTRs reached 336,914 units, up 64.6 per cent over sales in the same period last year.

♥ <u>FM ATLAS AND STATION DIRECTORY</u> by Bruce F. Elving has been revised and updated for its sixth edition. The 112-page guide includes 49 pages of maps showing FM station location, call letters, and frequency. Nearly 5,000 FM stations in the United States and Canada are listed by frequency and by geographical location. To order send \$4.50 plus 50¢ postage to FM Atlas, Box 251-KSC, Kearney, Nebraska 68847.

BLOCKBUSTER CLASSICAL PROGRAMMING on National Public Radio this month includes such live events as the St. Paul Chamber Orchestra led by Pinchas Zukerman (October 4 at 9:00 p.m. EST) and the opening concert of the Los Angeles Philharmonic season led by Carlo Maria Giulini (October 23 at 11:30 p.m. EST). Other broadcasts by satellite will be the international season of the San Francisco Opera on Friday nights at 11:00 EST from September 26 through December 5. Also beginning this month are the NPR debut concerts of the Cincinnati Symphony under Michael Gielen, a series of concerts of solo piano works by Brahms played by Detlef Kraus, and "Backstage with Richard Mohr," a series of talks about opera. Check local listings.

Speaking of Muzic...

By William Anderson



THE PERFORMER/AUDIENCE CONSPIRACY

AM somewhat too young to have seen Douglas Fairbanks Sr. on the silver screen anywhere but in reruns out of New York's Museum of Modern Art film archives, but I did catch him on the tube mid-August in a timely segment on the arrival of the "talkies" in the documentary series Hollywood. I learned from that source that Fairbanks elected not to participate when the addition of the soundtrack revolutionized the film industry in the Twentieswhether because of an inability to read lines convincingly, an accent that would have placed him instanter below the salt, or a vocal quality tending toward the coloratura I know not. The information did, however, cause me to reflect on a remark I made here last month to the effect that musical artists who plan to participate in the latest entertainment revolution had better be videogenic.

Fairbanks' refusal to "go audio" suggested that talking pictures were beneath his dignity as a true film artist; one can easily imagine some musical recording star expressing similar reservations about "going video" today. Will studio-bound Glenn Gould, for example, ever be seen through the medium of the videodisc, hunched over the keyboard humming a tuneless obbligato to a striking new view of *Jesu*, *Joy of Man's Desiring*? One somehow doubts it, though it might be fun to have a videodisc remake of that madcap concert tour he conducted from a railroad flatcar some years ago through Canada's muskeg boondocks.

Just as the talking picture brought foreclosure to the careers of silent-film stars unwilling or unable to share their voices with the public, so videodisc will leave behind at least a few recording artists whom Nature hath afflicted with eccentricities of face, form, or mannerism upon which ridicule delights to seize. Not that the whole enterprise will degenerate, like today's political campaigns, into merely another beauty contest; what will count will be direct audience appeal, leaving room for the vulnerable, the sympathetic, and even the pathetic among the more gaudily endowed crowd pleasers. "Star quality," it seems to me, is a rare,

random gift of the gods, a mysterious magnetic mixture that compels audience attention quite independent of-even despitethe level of performing skill. In watching a couple of highly skilled stars at work recently (fey flutist James Galway and elfin harpist Marisa Robles at Lincoln Center's 14th Annual Mostly Mozart Festival) it came to me that one of the ingredients is the ability such performers have to involve their audiences in a kind of conspiracy, an agreement to be manipulated. An evident pleasure in performing and a determination to entertain are prerequisites, but humor often plays a large part as well, particularly a subtle mockery of the convention of high seriousness. It is all quite open and aboveboard, and though critical Malvolios of the Fairbanks ilk may deplore the sacrifice of decorum, it is also invariably successful. If that sounds a bit calculated, so it is-on both sides. That delightful music can come out of this should be no surprise-check the Galway/Robles performance of Mozart's Concerto for Flute, Harp, and Orchestra (K. 299) on RCA ARL1-3353 for proof. Listen too to Rampal, Stern, Schneider, and Rose in the Quartet for Flute and Strings (K. 285) on Columbia M 30233 and tell me: Might not the fabulous success of the pizzicato strings in the Adagio have given Mozart a few sound ideas for the following year's flute and harp concerto?

Stereo Review

PUBLISHING DIRECTOR SIDNEY HOLTZ EDITOR IN CHIEF WILLIAM ANDERSON EXECUTIVE EDITOR WILLIAM LIVINGSTONE MANAGING EDITOR LOUISE GOOCH BOUNDAS ART DIRECTOR BORYS PATCHOWSKY

TECHNICAL DIRECTOR LARRY KLEIN ASSOCIATE TECHNICAL EDITORS ROBERT GREENE, DAVID RANADA

MUSIC EDITOR JAMES GOODFRIEND POPULAR MUSIC EDITOR PAULETTE WEISS SPECIAL PROJECTS EDITOR STEVE SIMELS ASSISTANT MUSIC EDITOR VIVIENNE WINTERRY GOODMAN

ASSOCIATE EDITOR DAVID STEIN PRODUCTION EDITOR JOHN HARRISON ASSISTANT EDITOR, RESEARCH RICHARD SARBIN EDITORIAL ASSISTANTS BARBARA AIKEN, SHEILA DWYER

CONTRIBUTING EDITORS CHRIS ALBERTSON PA

IRV COHN NOEL COPPAGE RICHARD FREED PHYL GARLAND DAVID HALL JULIAN D. HIRSCH GEORGE JELLINEK IGOR KIPNIS IRVING KOLODIN PÁUL KRESH STODDARD LINCOLN RICK MITZ LINCOLN PERRY PETER REILLY EBET ROBERTS CHARLES RODRIGUES ERIC SALZMAN CRAIG STARK JOEL VANCE

LONDON EDITOR HENRY PLEASANTS

ASSISTANT TO THE PUBLISHING DIRECTOR PEARL HARRINGTON

ASSOCIATE PUBLISHER ROBERT JOHN UR, SR. ADVERTISING DIRECTOR JAMES J. SULLIVAN PROMOTION COORDINATOR OLIVIA WILSON

Editorial and Executive Offices: 212 725-3500 Ziff-Davis Publishing Company One Park Avenue, New York, New York 10016 National Advertising Manager: Richard J. Halpern Eastern Advertising Representative: Charles L. P. Watson

Midwestern Office, The Pattis Group; 312 679-1100 4761 West Touhy Ave., Lincolnwood, Illinois 60646 Arnold S. Hoffman

Western Office: 213 387-2100 3460 Wilshire Boulevard Los Angeles, California 90010 Japan: James Yagi Oji Palace Aoyama, 6-25, Minami Aoyama 6-Chome, Minato-ku, Tokyo, Japan Telephone: 407-1930/6821, 582-2851

Circulation Office P.O. Box 2771, Boulder, Colorado 80323

EDITORIAL CONTRIBUTIONS must be accompanied by return postage and will be handled with reasonable care; however, publisher assumes no responsibility for the return or safety of art work, photography, or manuscripts.

Member Audit Bureau of Circulations



МРА

ZIFF-DAVIS PUBLISHING COMPANY President: Philip B. Korsant Senior Vice Presidents: Richard Friese, Philip T. Heffernan, Sidney Holtz, Edward D. Muhlfeld, Philip Sine, Albert S. Traina Vice Presidents: Robert Bavier, Paul Chook (Research), Baird Davis (Production), Edgar W. Hopper (Marketing), George Morrissey Treasurer: Selwyn Taubman Secretary: Bertram A. Abrams

Vice Chairman: W. Bradford Briggs

ZIFF CORPORATION Chairman: William Ziff President: I. Martin Pompadur Executive Vice President: Hershel B. Sarbin Vice Presidents: Furman Hebb, Bruce Maggin, Lawrence Sporn

Introducing another Sony only. The MDR series open-air headphones. The smallest, lightest stereo headphones available today. Or tomorrow.

With our lightest at 40 grams, you will barely know you're wearing them. Yet the sound is MDR-3

dynamite. Through a remarkable new audio breakthrough, our engineers have succeeded in reducing big-headphone technology down to the size of your listening channels.

SONY

The MDR series headphones' airy spaciousness delivers absolute clarity through an ultra-small driver unit that produces more than three times the energy of conventional circuits. And a new high-compliance diaphragm accurately reproduces the 20 to 20,000Hz bandwidth and improves low-range response.

That means you can listen to the heaviest of music for hours. Lightly. And know that you're hearing every nuance of the original recording from deep bass to the highest treble.

Listen to our new MDR series headphones. They're light. And heavy.



Heavy.

CIRCLE NO. 52 ON READER SERVICE CARD

STEREO HEADPHON

Le Cube.



and the second second

The ALLISON: SIX[™] is our smallest loudspeaker system. It is an 11-inch cube incorporating the Allison[®] Room-Matched[®] design principle.

While compact, the model Six is not a "mini" system in any sense. Its lowfrequency output is *flat* to below 50 Hz with reasonable system efficiency. The highest audible frequencies are reproduced smoothly and dispersed uniformly by the same convex-diaphragm tweeter used in the most expensive Allison models. Allison Sixes are accurate, fullrange loudspeaker systems, without allowance for size or price.

Revue du Son, in a feature review,* said "La 'petite' Allison Six est une grande enceinte [loudspeaker]."

If the reviewer is correct in his judgment, you can now buy a pair of great loudspeaker systems for about \$250. And you won't have to move out any furniture to make room for them.

Full-range performance is possible from loudspeakers that can be used as bookends on an open shelf. The Allison Six costs from \$125 to \$131, depending on shipping distance.

Descriptive literature, including complete specifications, is available on request.

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

•Revue du Son, No. 32 (November, 1979).





Name		
Address		
City	_ State	Zip



ETTERS TO THE EDITOR

Bouquets

• Once again I bought and am enjoying a terrific album because of a review in STE-REO REVIEW: Jerry Lee Lewis' "When Two Worlds Collide," reviewed by Joel Vance in July's "Best of the Month" section. After playing the disc only once, I had to agree that this man has GOT it, even though he hasn't become a Big Star. The Killer even puts new life into the old, old oldie *Toot Toot Tootsie*, and as for *Rockin' Jerry Lee*, *When Two Worlds Collide*, and *Honky Tonk Stuff*—anyone who doesn't like this kind of carryin' on is beyond all hope. This is happy listening, the kind of music that gets into your soul and your bones.

BOB STRUCK Burlington, Iowa

● After reading STEREO REVIEW for more than three years, I think it's time I thanked you in writing. I have bought a good many LPs and tapes over the years—fifty to eighty a year—and for the last three years or so STEREO REVIEW has been the major influence on my purchasing decisions. My tastes are widely varied, and the collecting has kept me broke but satisfied. From my perspective, your reviewers are batting about .800, excellent in any league. I particularly want to thank Joel Vance for his June review of the Darts album.

> F. A. J. WOYCHIKON Bellows Falls, Vt.

• This month's issue (August) marks my tenth anniversary as a STEREO REVIEW reader. Unfortunately, now I can't afford the equipment I have learned to appreciate. Thanks, I guess.

> ROD SWEETLAND Sacramento, Calif.

Welcome to the club!

Rouson Fans

• The first thing we do when STEREO RE-VIEW arrives in the mail is to leaf through it to find the hilarious cartoons by Rouson. Where can we write to Mr. Rouson to tell him how much we enjoy his work—every one an absolute riot? And can you tell us something about him?

VERNON AND MARGARET K. SMITH Waynesville, N.C.

London-born John Rouson, now retired and living in Staten Island, New York, began his cartooning career in the mid Thirties as racing cartoonist for the London Sunday Express. By 1939 his work was appearing in two dailies, two weeklies, and on the BBC and in Punch. He quit cartooning to enlist in the Royal Navy as an ordinary seaman, and in 1946 he was discharged as a lieutenant commander. He came to the U.S. two years later and established himself as a syndicated cartoonist, at one point having four daily strips running.

Mr. Rouson explains his involvement with music: "Like all middle-class London schoolboys at that time, I had to take piano lessons. In a couple of years I reached such a state of proficiency that I was forced to appear at some parent-teacher meeting playing a duet with the piano teacher's son on the violin-an experience so terrifying that I never gave a thought to music for the next twenty years. My interest was reawakened by hearing an Earl Hines recording of Fifty-seven Varieties, since when I've practiced sporadically entirely for my own amusement. I consider myself to be in the van of keyboard thumpers, tenth class. I suppose Hines is still my favorite-except for Horowitz playing Chopin!"

Letters to Mr. Rouson may be addressed to him c/o Stereo Review, One Park Avenue, New York, N.Y. 10016.

All Is Vanity

• The "bleakness" that Steve Simels referred to in the August "Simels Live" is as much a product of self-serving criticism as of the music of the Seventies, perhaps more about sounding off than sound. It is not necessary for Mr. Simels to focus on his own stance; his topic should be the function of contemporary music in society. As he seems to understand, the self-conscious aspect, the parody of a stereotype, is what is funny; but rock is not only for the purposes of humor (Continued on page 10)

8

Sony's inseparable separates.

A stylish new match in a thin new tuner and an integrated amplifier. Tune into style and grace with Sony's new slim separates. Together they give you the compactness of a single receiver, with the higher-fi engineering of individual components.

SON

Sony's sleek ST-J55 tuner and powerful TA-F55 integrated

amplifier are a perfect pair. Both with the convenience of feather touch operation. In addition the F55 features an electronic volume switch with a built-in motor to give you smooth and easy stereo command.

Sony also supplies blank station labels so you can personalize your tuner. You can tag your preprogrammed frequencies or station names in a handy LED backlit slide out holder for at-a-glance

identification

The final touches.

Of course, you get all the higher-fi standards in the TA-F55, like Gold Plated Phono Jacks, oxygen free copper wiring, metallized film resistors and polypropylene capacitors. It's the synthesis of Sony technology and design.



Frequency synthesized tuning.

The tuner's advanced technology is Sony sophisticated. Frequency synthesized tuning with a highly stable quartz-crystal oscillator locks onto the broadcasting signal and makes station selection precise and drift free. Sony sensational is the only description for our tuner's masterful performance.

The ST-I55's feather touch switches are set in a neat clean line for perfect visual operation. And you get impeccable operational ease with Memory Tuning, Auto Tuning and Manual Tuning.

Non-volatile memory with random memory preset.



The ST-J55's MNOS memory makes total operation incredibly simple. From tuning to randomly

presetting a total of 8 of your favorite FM/AM stations.

Pre-set frequencies and reception adjustments like Muting/ Mode Pre-set are all memorized for problem-



free tuning each time you turn the tuner on. And Sony's non-volatile memory holds all information up to ten years without power or backup systems.

Sony's amplifier takes MIM and MC cartridges for maximum virtuosity.

The ST-I55's matching mate is Sony's TA-F55 integrated amplifier. They're a natural fit at exactly the same slim size. Sony's technology gives you the combination of slim elegance and powerful 65W power. THD is 0.008%, one of the lowest in



Pulse Power Supply, Sony's revolutionary Heat Pipe, and Sony's innovations in simple and straight signal

processing circuitry construction all result in extremely clean and noise free sound quality.

Best of all, now you can choose practically any type of MC and MM cartridge for your choice of the most satisfying musical performance an audiophile can hope for. Just set the two position load selector for each MM and MC cartridge and appreciate the TA-F55's virtuosity.

Precision and stability are Sony assured. The ST-I55 tuner and

TA-F55 integrated amplifier. Two Sony quality engineered components. whose separate stability and precision are unmatchable for operational convenience and performance.

Sony's perfect pair. They're inseparable.



and realism. Everyone has to construct his own dream so that he may live in it, but only those who acknowledge their own fantasies for what they actually are display the sensitivity that is lacking in the work of those who blindly copy.

Yet when rock is good it is an exercise of ego; when criticism is poor, like Mr. Simels', it is also an exercise of ego, but without the perception of its own staginess. All art offers an impossible dream and invites the audience to try to share it, with the foreknowledge that it is not possible to do so. But criticism should not inform us of the critic's own limitations.

> ROBERT GORDON New York, N.Y.

The Editor replies: Why not? What better place to find them out? Should a critic conceal his limitations? Must we sneak up on him in the middle of the night, ask his wife, his bartender, or his psychiatrist what his weaknesses are? The impossible dream of criticism is that it can be objective; the impossible dream of art is that it can communicate universally. The inevitable failure to realize the dream in both spheres only proves us fallibly human. One cannot do better than listen to the voice of experience: says Harold C. Schonberg, in a recent valedictory column celebrating his forty-four years as a music critic, twenty of them with the New York Times, "Criticism turns out to be nothing-nothing-more than the

Soundcraftsmen "THE PERFECT PREAMPS" - OCTAVE-WIDE TONAL CONTR PROCESSING PATCH-PANEL, FOR OPTIMUM FLEXIBILITY	ROLS, PLUS PUSH-BUTTON SIGNAL- Y IN PROGRAMMING, SWITCHING,
CAME & W W W W W W W W W W W W W W W W W W	
SP4002 FEATURES: □ Duai10-band ± 15 dB Equalization 2 ero-Gain/LED Level Balancing Sub-Sonic Fillering-15 Hz 1 Variable 47/100 Ohm Phona Impedance ± 20 dB Phona Level Adjustment Phona Signal-to-Noise-97dB Ther w SP4102 SIGAL PROCESSING P. omplex her is the most floadube promplete available. Its	13 19" Rock Mount Brushed Aluminum Block & Silver Overlay Panels
PUSH BUTTON PATCHING capabilities or endless The SMOOD was designed to mitosp judicities of the adult ment. For Iohani I taxbullity, see hove included to the adult ment. For Iohani I taxbullity, see hove included to the adult of the OLAVE GRAPHIC EQUALIZERS For the top to threat operators with this are TWO SIGNAL PROD ESSING LODD'S to dedite on cessories in SIGNAL PROD CARTERIMATCHI proof Exercision for the 60 to 600 prod thruss of Ivor mourg coll-standards withhold host on phana 1 and phana 2 from 50 to 600 prod turous 3 STATEOF THE-ART PREAMPS, S399 to S599	
NEW BASIC EQUALIZER 5249.000 9 EQUALIZER FEATURES: 1. Environmental EQ Tests Record 2. Compu- tane Charts for EQ re-set included 3. EQ Tape Recording 4 Tope Monitor 5. EQ defeat 6 ± 16-12 dB EQ/octove 7. S/N-105 dB 8 Cobinet included as shown 9. Two Master Output Controls.	
Includes TEST REPORTS ENGINEERING REPORT HOW'S'' of equalization—an ship of acoustics to your env "How the Soundcraftsmen Ec- pleasures.'' 'How typical roor and a 10-POINT ''DO-TT- FIND OUT FOR YOURSELF WH SEND 35.00 FOR EOUALIZ	e Full-Color Brochure c, complete specifications, C ass ''H'' amplifie , EQ COMPARISON CHART, and the ''WHY'S & easy-to-understand explana ion of the relation- ironment. Also contains many unique IDEAS or jualizer can measurably enhance your listening n problems can be eliminated by Equalization.'' OURSELF'' EQ evaluation cf ecklist so you can

1 SEND 56.00 FOR EQUALIZER-EVALUATION RT. FT2 LF TEST RECORD. 1 SET OF COMPUTONE CHARTS, 1 COMPARISON CONNECTOR, 1 INSTRUCTION FOLDER

Made in U.S.A. by SOUNDCRAFTSMEN + Santa Ana. CA 92705 + CANADA E S GOULD LTD. Montreal QUEBEC. Hat 165

verbalization of one's responses to the object being criticized."

Allan Pettersson

I read with much interest David Hall's fine review of Allan Pettersson's Eighth Symphony in the August issue. I'm glad to see that Pettersson and his music are receiving some recognition and publicity in this country. Readers whose curiosity was piqued by this review may be interested to know that Pettersson has composed fifteen symphonies so far, the last in 1978-1979. Since then he has also completed a Concerto for Alto Saxophone and Orchestra and a Violin Concerto.

FRANKLYN MUENCH Sheboygan, Wis.

Musical Wonders

Who could possibly resist a challenge like Peter Reilly's reference (in his May review of Peggy Lee's "Close Enough for Love") to "the seven wonders of the world of popular entertainment"? I eagerly await publication of *his* list, but as a mental and musical exercise I made up my own:

(1) Stephen Sondheim. Anyone who could write the plea that is *Being Alive* or *Anyone Can Whistle*, or the gentleness (midst the mayhem!) of *Nothing's Going to Harm You* (from *Sweeney Todd*), cannot be completely heartless. Sondheim does not write musicals; he writes masterpieces.

(2) The composers and lyricists of the American musical stage. Matchless craftsmen, all of them.

(3) Bette Midler. It never ceases to amaze me that she is able to sing with her tongue so firmly in cheek. Now that she's dismantled disco, I eagerly await her attack on New Wave.

(4) John Phillips. As leader of the Mamas and the Papas (for me the greatest vocal group ever), he produced the quintessence of vocal harmonies.

(5) The Manhattan Transfer. The only group I have heard that can match the vocal expertise of the Mamas and the Papas.

(6) Barbra Streisand (pre-"Butterfly"). Come on, Barbra, let's have the Streisand we all know and love, once again in the company of Arlen, Mercer, Porter, and so on. With their songs you are unbeatable, with most of today's pop unbearable.

(7) Cleo Laine. Her version of Send In the Clowns must be one of the musical high spots of the past few decades; a superb voice at all times.

> R. A. BAKER Pietermaritzburg, South Africa

Peter Reilly replies: I fully agree on Sondheim, Streisand, and Midler. Peggy Lee makes it four. How about Ethel Merman, Al Carmines, and Marvin Hamlisch to make up a Magnificent Seven?

ABX Comparator

The correct address for the manufacturer of the ABX Comparator discussed in July's "Technical Talk" is: ABX Company, P.O. Box 423, Troy, Mich. 48099.

Sony overcomes the gap in three-head technology.

Introducing the TC-K81 discrete three-head tape cassette deck.

The superiority of three-head cassette tape decks is well known. With three heads you can achieve the individual optimum head gaps for record and playback. Without compromising the head gaps as in conventional two headed systems. You get a wider frequency range and a higher frequency response.

The real advance in three-head technology is Sony's TC-K81 discrete three-head cassette tape deck.

Each head has its own individual casing and suspension systems. With Sony's three individual heads you get precise azimuth alignment* and equal record and playback head to tape pressure.

Features that combination or other discrete three-head systems can't offer. And you don't have to worry about unwanted magnetic leakage flux, as in combination three-head systems.



when you are monitoring the actual recorded signal. In short, three heads have never been better.

We also used Sendust and Ferrite for the heads in the TC-K81 to increase linearity and frequency response. S&F heads are ideal to get the most out of metal tapes. As well as Regular, Chrome and FeCr.

Sony's closed loop dual capstan drive system, unlike other dual capstan drives, assures equal torque distribution to both take-up and supply reels.



l.

And our new cassette deck really shows its stuff in Bias Calibration and Record Level Calibration



Systems. Two built-in oscillators and Multi-function LED Peak Meters let you adjust Bias and Record Level for flat frequency response

SONY

sound reproduction. And the TC-K81 has Dolby** IC, Headphone/ Lineout attenuator and all the other sound quality standards to improve

musical performance. You can pop, rock and bop. Or enjoy the airiest of arias with profound fidelity and Sony quality.

The TC-K81. See it. Hear it. And you'll say, yes.

TC-K81

*Factory aligned **Dolby is a registered trademark of Dolby Laboratories.

> RM-50 optional remote control unit.

to optimize the performance of any tape. Sony's quality shows on the inside with linear BSL (Brushless & Slotless) motors and a damped flywheel to eliminate resonance. Metallized film resistors and Polypropylene capacitors promise clear



The continuing story of TDK sound achievement. Part Four.

In previous chapters we've told you about the technological breakthroughs that make TDK tape so outstanding. We've shown you how TDK tape is wound on a perfectly circular hub/clamp assembly for the smoothest possible flow of sound. But the perfection of the first two phases would be wasted effort if tape travel were inconsistent or slowed down by excess friction. Part Four, the TDK bubble slip sheet, is one of our unique answers to reducing friction. On it rests TDK's reputation for smoothrunning sound.

TDK engineers painstakingly studied tape travel. They found the edge of

 $\bigcirc \odot \odot \odot \bigcirc \bigcirc$

the tape comes into direct contact with the cassette at several points. At any of those critical spots, the tape can be slowed down, tilted away from the parallel, side-tracked or damaged. The need to reduce friction was evident. And it

had to begin where the tape edge makes contact with the shell.

The TDK slip sheet first came into existence as a flat piece of paper. Our engineers knew it had to do more than reduce friction. It also had to maintain constant tape speed and perfect tape winding. Two formulations met the exacting TDK standards. Ultra-thin paper coated with silicone. And teflon

coated with a fine layer of graphite. To further diminish the area of contact between tape and slip sheet, our engineers created the bubble concept.

Each TDK bubble slip sheet is computer-designed with twenty bubbles of varying diameters. Each bubble slip sheet is manufactured Running analysis of TDK bubble slip sheet. to micron tolerances to guar-

antee uniformity in height. In operation, the TDK bubble slip sheet maintains a constant running angle for the tape, minimizing friction. Tape winding is even and consistent. Your music is recorded and played back in a safe, reliable environment. Music is what it all

comes back to. That's why TDK considers all parts in a cassette equally important. And why every effort is made to achieve a perfect interplay between them. It's an achievement you'll hear every time you play your favorite music on TDK. Music is the sum of its parts.



The Amazing Music Machine.

© 1980 TDK Electronics Corp., Garden City, N.Y. 11530 CIRCLE NO. 60 ON READER SERVICE CARD

New Product/ latest audio equipment and accessories



□ The "Speaker Lead Compensator" in NAD's Model 3040 integrated amplifier senses the current flow in the leads and produces a correction voltage to compensate for lead resistance. The 3040 also has a lowfrequency Speaker EQ feature that extends the useful bass range of nearly all popular acoustic-suspension speakers by one octave while maintaining their effective Q, transient response, and phase behavior. Sharpcutoff infrasonic filters remove rumble and noise signals below 20 Hz.

The Model 3040 is rated for a continuous output of 40 watts per channel into 8 ohms from 20 to 20,000 Hz with no more than 0.02 per cent distortion. On a short-term basis it can put out more than 140 watts into 4 ohms and more than 140 watts into 2-ohm loads. A rear-panel switch bridges the amplifier for mono operation, in which it has a continuous-output power rating of 100 watts into 8 ohms. Other features include soft clipping, dual LED power meters, selectable phono capacitance, two phono inputs, and an RIAA-equalization accuracy of ± 0.3 dB. Price: \$379.

Circle 120 on reader service card



□ The two-speed Pro 300 belt-drive turntable from BSR has a removable "gentleoperating" multiplay spindle that can hold up to three records (a single-play spindle is also supplied). The d.c. turntable motor is part of a quartz-locked speed-control system. The straight, low-mass, statically balanced tone arm has a carbon-fiber head shell and its own separate motor. A LED display on the front panel shows speed, elapsed time, stylus-use time, or levelness of the unit. Vertical and lateral cueing are controlled by front-panel switches, as are pitch, speed, disc diameter, and the automatic functions. An infrared remote-control unit has switches for play, reject, vertical and lateral cueing, and volume up/down. The turntable is available without the remote control as the Pro 200. Prices: Pro 300, \$299.95; Pro 200, \$249.95.

Circle 121 on reader service card



□ The CR 610 from Jumetite Laboratories Ltd. is a modular two-way speaker system with a crossover frequency of 600 Hz. The treble module of this corner-mounted unit contains a ribbon speaker driving a vertical horn facing a reflector. The reflector directs the sound into the listening area and controls the dispersion pattern. Low frequencies are provided by two 10-inch woofers in an acoustic-suspension arrangement. Frequency range is given as 34 to 18,000 Hz, impedance as 8 ohms. The unit generates an 89-dB sound-pressure level measured at 1 meter with a 1-watt input. It can handle at least 75 watts peak input above 600 Hz and 200 watts transient input below 600 Hz. System height is 66 inches; required floor space in a corner is a 151/4-inch square. Price: \$1,590 in oiled walnut; \$2,010 in rosewood. Jumetite Laboratories Ltd., Dept. SR, 1300 Richards Street, Vancouver, B.C. V6B 3G6, Canada.

Circle 122 on reader service card



□ Teac's X-3 open-reel tape deck has a d.c. servo-controlled capstan motor and two induction-type reel motors. The unit has three heads and source/tape monitor switching. Other features include micro-phone/line mixing, a record-mute switch, two speeds (7½ and 3¼ inches per second), separate two-position bias and equalization switches, and spring-loaded reel holders. The head cover is detachable for ease of maintenance and editing. Price: \$550.

Circle 123 on reader service card



□ It is claimed that Aiwa's HR-50U High-Com noise-reduction system can produce a 25-dB improvement in tape-recorder signalto-noise ratio as well as increasing the total dynamic range to as much as 100 dB. The system can be used with any cassette or open-reel deck. Signals processed through the HR-50U are free, it is said, of the audible coloration and "breathing" possible with some other systems. To avoid encodedecode errors, the unit comes with infrasonic and multiplex filter functions. There are front-panel controls for tape sensitivity, a twelve-step peak-reading level display, and a bypass switch. Compression while recording is 2:1, expansion during playback is 1:2. Frequency response is given as 20 to 20,000 Hz ±1 dB. Dimensions are 97/8 x 13/16 x 91/16 inches. Price: \$230.

Circle 124 on reader service card



AUDIO PRO B2-50 SUB WOOFER

Without fidelity in the <u>low</u> frequencies, no speaker can deliver full high fidelity.

But the reason for adding the Audio Pro B2-50 Subwoofer to your system goes much deeper than having the bass essential to "life-like" sound reproduction.

The powerful built-in amplifier and fully adjustable passive/electronic crossover of the B2-50 enable your main amp and speakers to operate more efficiently, with less distortion.

Even the best of systems will become far better with the addition of a subwoofer. And the speed, accuracy and power of Audio Pro's patented "Ace-Bass" principle make the B2-50 the best subwoofer system.



New Product/ latest audio equipment and accessories



□ Onkyo's TA-2060 is a three-head, twomotor, direct-drive, metal-tape-capable cassette deck with Sendust record and playback heads and a double-gap ferrite erase head. The unit has double Dolby-B circuits and the Dolby HX system of headroom extension. Frequency response is from 20 to 19,000 Hz ± 3 dB with metal tape. Signalto-noise ratio is 60 dB (Dolby circuits off). Wow and flutter is given as 0.04 per cent weighted rms. The "Accubias" system lets the user adjust bias and equalization for any tape used; the system uses built-in tone generators with the adjustments monitored on the deck's peak-hold-type meters. The "Auto-fade" feature permits post-recording of fade-outs. Price: \$449.95.

Circle 125 on reader service card



□ The Biotracer tone arm in Sony's fully automatic PS-X75 turntable incorporates two linear electric motors to control all the tone arm's functions. Each of the motors is monitored by velocity sensors connected to a microcomputer. Stylus force is controlled electronically: the sensor system corrects for the effects of record warp and even electrostatic attraction of the unit's dust cover. Antiskating force is also electronically momitored and controlled, with the correct force applied regardless of tracking force, stylus shape, or other factors. The linear motor system is also claimed to dampen infrasonic resonances. The tone-arm motors allow control of both left/right and up/down arm movement without raising the dust cover or touching the arm.

The brushless, slotless direct-drive turntable motor in the PS-X75 is part of a Magnedisc Servo Control system that monitors speed and corrects for deviations. Wow and flutter is given as less than 0.025 per cent (rms weighted) and rumble as -78 dB (DIN-B weighted). The turntable base is made of calcium carbonate, fiberglass, and a polyester binder. The rigid material is said to be acoustically inert and to absorb the high-level, low-frequency sounds that normally generate acoustic feedback. The PS-X75 measures about $63/4 \times 191/2 \times 17$ inches and weighs about 281/2 pounds. Price: \$500.

Circle 126 on reader service card



□ The Quieting Slope Control in JVC's T-X3 tuner is an adjustment circuit that helps quiet the noise of weak FM signals by automatically varying the amount of high-frequency blend. When the signal strength falls below 30 microvolts (μV), the tuner increases its stereo 50-dB-quieting sensitivity from 36.8 to 31 dBf. The detector circuitry uses a phase-tracking loop to obtain an alternate-channel selectivity of 70 dB. Stereo decoding is by a crystal-controlled phaselocked-loop circuit. Specifications include 1.8 μ V 50-dB-quieting sensitivity in mono, 0.10 per cent total harmonic distortion at 1,000 Hz in stereo, capture ratio of 1 dB, 50 dB stereo separation at 1,000 Hz, frequency response of 30 to 15,000 Hz +0.3, -2.0dB, and subcarrier suppression of 50 dB. FM antenna input is 75 ohms, unbalanced. The AM section of the T-X3 has a sensitivity of 300 μ V per meter with the built-in bar antenna. Dimensions are 31/2 x 1811/16 x 145/16 inches. Price: \$219.95.

Circle 127 on reader service card

(Continued on page 16)

Before, you couldn't afford us. Now, you can't afford to ignore us.



For years, Mitsubishi has been making brilliantly engineered, but expensive, separates.

Now, we're making brilliantly engineered, but affordable, receivers. Receivers that offer so much more for the money, they simply cannot be overlooked.

Because our new \$390* R10 and \$560* R20 (R20 shown) share much of the technology in our highly respected separates, they give you more power and meaningful features than anything else in their price range.

Like a switchable IF bandwidth control that lets you match receiver characteristics to varying signal conditions.

Like 60 watts per channel (R20) and 45 watts per channel (R10) minimum RMS at 8 ohms from 20Hz to 20kHz with no more than 0.02% total harmonic distortion.

Like sensitivity of 9.3dBf (1.6µV). FM signal-to-noise of 84dB mono,80dB stereo. And phono signal-to-noise of 94dB.

The new R10 and R20.

For people who could never afford Mitsubishi, but always had an ear for it.





City State Zip CRUICHFIELD 1 Crutchfield Park, P.O. Caller 1, Department S Charlottesville, Virginia 22906

New Product/ latest audio equipment and accessories



Mesa's Wedge-shape Acoustic-suspension Car Speakers

□ Mesa's wedge-shape Model 20-ZX car speaker is a two-way system made up of a 2-inch cone tweeter and a pair of woofers, one $3\frac{1}{2}$ -inch active unit and a 3-inch passive unit directly behind it. Frequency response is 60 to 20,000 Hz with crossover at 6,000 Hz. Recommended for use with amplifiers ranging from 10 to 30 watts, the 20-ZX has an impedance of 4 ohms. The cabinet is black molded resin and asbestos with a black aluminum grille. The speakers measure $8\frac{1}{2} x 4\frac{1}{2} x 6$ inches and weigh 3 pounds each. Price: \$110 per pair.

Circle 128 on reader service card



American Acoustics Labs Introduces a New Speaker Series

□ American Acoustics Labs' Impression series of vented speaker systems have 1-inch soft-dome tweeters, 4½-inch midrange drivers isolated from the speaker-cabinet pressures, and woofers with closed-cell foam surrounds. The drivers in all systems are vertically aligned for better imaging and flush mounted to reduce the effects of diffraction. A high-frequency balance control is installed on the front panel of each speaker. There are four models in the line, ranging from the two-way IP-98 to the threeway, four-driver IP-920 (shown). All have nominal impedance ratings of 8 ohms and frequency responses that extend to 22,000 Hz ± 3 dB. The IP-920 has two 10-inch woofers and crossover points of 500 and 2,000 Hz. Dimensions are $35^{3/4} \times 14^{1/2} \times 11^{1/2}$ inches. Weight is 52 pounds. Price: \$598 per pair. American Acoustics Labs, Dept. SR, 629 West Cermak Road, Chicago, Ill. 60616.

Circle 129 on reader service card



□ Sansui's XR-O11 turntable features an internal microcomputer system that can be programmed to play up to seven selections on a record side in any order. After programming, the unit's operation is completely automatic from the initial cueing to the final arm return and shut-off. All controls are on the front panel outside the dust cover. The platter speed is monitored by magnetic heads that read markings on the inside of the platter; deviations trigger a fast-acting quartz-servo speed-correction circuit, which is claimed to be five times more accurate than conventional speed-control systems. Wow and flutter is given as 0.015 per cent, turntable signal-to-noise ratio as 78 dB. The straight, low-mass tone arm is pivoted at the point that "minimizes vibration transfer." For feedback isolation, the motor and arm are mounted on a rigid cast-zinc subassembly within the turntable base. Price: \$650.

Circle 130 on reader service card

NOTICE: All product descriptions and specifications quoted in these columns are based on materials supplied by the manufacturers.

Domestic inflation and fluctuations in the value of the dollar overseas affect the price of merchandise imported into this country. Please be aware that prices quoted in this issue are subject to change.



Mitsubishi's new linear-tracking, vertical turntable. The LT-5V.

It fits where ordinary turntables won't. Like on a bookshelf.

It has a tangential tonearm instead of a pivot arm. So tracking error is infinitesimal.

It has an electronic logic system.

Which sets record speed, cues and returns the tonearm, or replays the record.

Its vertical design is less sensitive to feedback.

And its price is half that of other linear-tracking turntables.

Five sound, practical reasons to

buy the new LT-5V.

And now for the *real* reason. You can invite fellow audiophiles over to your place.

And bring them to their knees.



Call 800-447-4700 toll-free for the name of your nearest dealer. In Illinois, call 800-322-4400. For information, write Mitsubishi Electric Sales, America Inc., Dept. 00,3010 East Victoria St., Compton, CA 90221. In Canada: Melco Sales Canada, Ontario.

CIRCLE NO. 36 ON READER SERVICE CARD

THE SOUND YOU'LL NEVER GET FROM A CASSETTE DECK IS NOW HERE ATA CASSETTE DECK PRICE.

Teac's new X-3 open reel deck costs no more than a good cassette deck. But its fidelity is far superior to that of even the most expensive cassette deck. For a very simple reason.

More is better.

Open reel tape running at 7½ ips is four times faster than standard cassette tape.

And twice as wide. So the total tape volume of open reel is 16 times greater than cassette. That means there are 16 times more magnetic particles to imprint the signal. And that means you get as much signal as possible—especially

> high frequencies—without distortion. Plus a much greater capacity to preserve dynamic range.

Cassette decks can't give you this kind of performance simply because there are inherent limitations in the cassette format. No matter how good the hardware. Even with improved software, the basic problems remain: saturation, overload, distortion. And disappointment.

And fidelity isn't the only thing you get more of with the X-3. You get more time. You don't have to stop in the middle of a recording to flip the tape. So you get an uninterrupted performance. The way it was meant to be heard.

A classic idea.

The X-3 is built the way all Teac machines are built—to last. And to perform. You get the classic, 3-motor, 3-head design that established Teac's reputation 25 years ago. And you get it for the price of a good cassette deck.

Which means you can finally have the sound you thought you couldn't afford. From Teac.

Performance specifications

Signal-to-noise ratio (overall) 58 dB (3% THD level, weighted) Wow & flutter (NAB Weighted) 0.04% at 7½ ips; 0.06% at 3¾ ips. Frequency Response (overall) 30-28,000 Hz at 7½ ips 30-20,000 Hz at 3¼ ips Playing time (both sides) 3 hours at 3¾ ips with 1800 feet of one mil tape



CIRCLE NO. 61 ON READER SERVICE CARD



It s
It s</l

= It sounds like music.

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

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

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



600 Cecil Street, Buchanan, Michigan 49107



Audio Q. and A. By Larry Klein

Technical Director Klein checks out Tokyo's underground audio.

Digital Dilemma

Q. With all the talk about digital recording and equipment, I'm wondering what I will have to do when digital really gets here. Will I have to get all new digital recordings, or will I be able to play my standard records on digital turntables?

ANTHONY LJUBICICH Flushing, N.Y.

A. Your anxieties are premature, to say the least. It is probable that digitally encoded audio discs will be here sometime in the early Eighties, but standard LPs will probably also be produced for at least the next twenty years or so. Although videodiscs and digital audio discs will probably be playable on the same "turntable" (it would be ridiculous if separate machines were required), the standard LP record will require today's "old-fashioned" player.

Incidentally, the major advantage I see in digital discs is their ability to be played *softer*, not louder. Personally, I don't want to produce a greater average sound-pressure level in my living room, but I do want to be able to set the volume control on my equipment so as to hear a loud level during loud passages without being inundated by hum, hiss, and surface noise during soft passages. (For some other ramifications of the loudness-vs.-softness question, see "Power and Dynamics" in the September "Audio Q. & A.")

Hum Loss

Q. I'm puzzled about a recent test report in which Julian Hirsch tested a very high-power basic amplifier and found the noise level to be 73 dB below a 1-watt reference output at the maximum gain setting of its input-level controls. However, at minimum gain the noise level was 64 dB, or 9 dB worse. Is there an explanation?

JOHN GEORGIADIS Athens, Greece

A. In most of Mr. Hirsch's reports, an A-weighting network is used to "weight" noise figures in accordance with standard measurement practices. The purpose of the weighting network is to adjust the measured figures so that they more closely reflect the audibility of the noise. Since the ear's sensitivity varies with frequency, the various compensating weighting curves adjust the meter response roughly to parallel that of the human ear. The A-weighting curve attentuates the meter reading by about -30 dB at 60 Hz based on a reference level of 0 dB at 1,000 Hz. This means that if there are equal-strength electrical-noise signals at 60 Hz and at 1,000 Hz, the 60-Hz noise will be heard and read (if A-weighted) as having 30 dB less strength than the 1,000-Hz noise.

To return to the specifics of reader Georgiadis' question: Mr. Hirsch tells me that when measuring the noise level of very high-power amplifiers he frequently doesn't use the A-weighting network because he doesn't want to risk the real possibility of its being destroyed by the output power involved. For that reason, the signal-tonoise-ratio figure on very high-power amplifiers is not comparable to—or as low as—measurements made on some other amplifiers. However, since the figures are good enough that no noise is audible during listening tests, it was not felt that reader confusion would result.

As to why the noise measured lower with the gain control turned up, that can be explained by the presence of some hum picked up at the amplifier's input that canceled 9 dB worth of internal hum. Incidentally, when the distortion measured at the output of an amplifier reads marginally lower than the distortion in the input signal, the same sort of cancellation is taking place. In both cases, the noise and distortion figures usually have to be very low before measurable cancellation occurs.

Stereo-AM Rebuttal

Q. I was startled to read your response to Frank Marks' question in the July issue. I cannot fathom your dismissing AM stereo with a "so what" unless you are under the misapprehension (so common among radio engineers) that AM is limited in its fidelity by FCC mandate. The fact is that AM broadcasters in the United States

(Continued on page 22)

AFTER 500 PLAYS OUR HIGH FIDELITY TAPE STILL DELIVERS HIGH FIDELIT



If your old favorites don't sound as good as they used to, the problem

could be your recording tape. Some tapes show their age more than others. And when a tape ages prematurely, the music on it does too.

What can happen is, the oxide particles that are bound onto tape

loosen and fall off, taking some of your music with them. At Maxell, we've developed a binding process that helps to prevent this. When oxide particles are bound onto our tape, they stay put. And so does your music.

So even after a Maxell recording is 500 plays old, you'll swear it's not a play over five.



Our ADC Integra phono-cartridge's carbon fibre

their plastic.

Once you

compare the ADC Integra cartridge to the competition you soon realize there's really no competition at all. Let's start with the basics. Like the plastic our competitors use. A bit too basic for a design as revolutionary as the ADC Integra. That's why our engineers chose to precision mold the Integra from a special carbon fibre material pioneered for aerospace use. Combined with our unique integrated headshell/ cartridge design, it makes the ADC Integra up to 50% lighter than conventional headshell and cartridge combinations. And because the Integra is lighter, it tracks better. And preserves your record collection longer. For most people that would be enough. But not for ADC. Our Integra's carbon fibre material also eliminates any low frequency loss or flexing But the biggest advantage of all has to be that all the advantages of carbon fibre are available in three different Integra models. One for every kind of budget. All for one kind of sound...devastating. If you'd like to hear more, call Audic Dynamics Corp., toll-free (800) 243-9544 or your ADC dealers



may legally transmit audio flat to 15 kHz. This is far better than FM is able to do in actual practice, given the unfortunate requirement of high-frequency audio pre-emphasis in transmission. FM broadcasters are forced to limit high-frequency audio transmission in order to maintain reasonble audio levels overall.

AM's reputation for rotten audio quality is due mostly to the poor quality of conventional AM receiving equipment (even in high-fidelity receivers) and, to some extent, to the lack of effort to transmit highfidelity AM since hardly anybody can receive it that way. You are wrong in saying that for AM broadcasters the goal is "not higher fidelity." AM broadcasters have been pushing hard for stereo AM for a long time, more for the improvement in receiver design that must result than for stereo itself.

As an example of what can be achieved with AM, station KEX in Portland, Oregon, currently broadcasts audio perfectly flat to beyond 15 kHz and with lower distortion than any commercial FM station on the West Coast. The lack of restriction of high frequencies makes the station sound incredibly clean and open. Any AM station can achieve the same, and many will when receivers reach the market that can reproduce AM accurately.

AM has a further advantage: the multipath problem that bedevils FM in urban areas is essentially nonexistent on AM. This has obvious advantages not only for cars, but also in many sections of our cities. In regard to noise reduction, the synchronous AM detector offers hope for great improvement; in any case, when heard from a good receiver AM is not as noisy as is commonly believed.

I'm afraid you have given a lot of audiophiles some incorrect impressions about the potential quality of AM stereo, and I hope you set the record straight.

ERIC G. NORBERG Consolidated Communications Consultants La Crescenta, Calif.

A. My "so what" was not really a reaction to any inherent technical audio inadequacy of stereo AM but instead was prompted by my view that no real effort would be made to realize its hi-fi potential for the vast majority of listeners. I know that stereo AM can work well since I have heard an impressive Sansui demonstration broadcast using their own low-powered transmitter and a prototype stereo-AM receiver. The sound quality was at least as good as that I normally hear on FM. So it's not that I believe that stereo AM can't be broadcast with high fidelity, it's just that I suspect that usually it won't be. The question is not really worth arguing about since time will resolve the issue. I truly wish Mr. Norberg good luck in his crusade to make stereo AM a new nationwide high-fidelity medium-but I just don't think it's going to happen.

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

ADC

NTEGR

WHY PAY FOR FRILLS IF WHAT YOU REALLY WANT IS PERFORMANCE?





AR93

INTRODUCING THE NEW AR93 AND AR94 HIGH TECH SPEAKERS

The frills are gone.

Instead of removable grills, chrome plating and a lot of brushed aluminum, AR has invested everything in what you'll hear.

The result: a pair of 3-way floor-standing speaker systems at prices you'd expect to pay for some 2-way bookshelf systems.

The AR93 has four drivers including a pair of side-firing woofers which eliminate interference from secondary reflections, and are thus remarkably accurate all across the bass range.

The AR94 has three drivers. With a new AR cross-over system, its mid-range works with the woofer to act as dual front-firing woofers across the bass range.

You get added low-end punch in a 3-way system. Both speakers are bigger than anything in their price range, for more bass response. Both have vertically arraved drivers for sharpest stereo imag-



ing, liquid cooled tweeters for improved power-handling, and the AR Acoustic Blanket[™] for smooth frequency response.

We set out to engineer more speaker for the money than ever. And in aiming for that goal something exciting happened. We achieved a stun-

ningly handsome look. Sleek, contemporary



speakers, sheathed in a matte black, acoustically transparent fabric. A true blending of High Tech and Hi Fi.

Speakers that please the eye.

But above all, speakers that put your money where you can hear it.

For literature see your AR dealer or write AR at this address. Teledyne Acoustic Research, 10 American Drive, Norwood, MA 02062.

TELEDYNE ACOUSTIC RESEARCH

OCTOBER 1980

Crown makes American hightechnology audio components, whose innovative designs and remarkable specifications established new performance standards for an entire industry. Crown amps, pre-amps, crossovers, equalizers and tuners are highly respected by audio enthusiasts. Performers, recording engineers and sound contractors choose Crown for their personal, and professional systems.

The Crown Information Package tells all about Crown and its products, possibly the finest collection of audio information easily available to you. Over 50 pages, including Crown technical papers on audio concepts, discussions



of product design and operation, specifications, prices, dealer locations – and much more. Many illustrations in full color.

Send three dollars with the coupon. If it's not worth it, send it right back. We'll refund your money.

If all you need is the name of a nearby Crown dealer (he has this information for free), use our reader service card number.

Here's my \$3. Send the package.	
Name	
Address	
City	
StateZip)
	_



1718 W. Mishawaka Rd, Elkhart, IN 46514 Innovation. High technology. American. That's Crown.



BOOKS FOR BEGINNERS

ALTHOUGH these columns manage to con-vey some basic—and useful and necessary-information about various aspects of audio, there is simply too much information on most of the topics addressed to be adequately treated in one monthly column or, indeed, in an entire issue of the magazine. Moreover, STEREO REVIEW is not so much an educational as a news medium, its primary function being to keep readers abreast of what is new and interesting in audio. And so, though reading these pages regularly for a couple of years will impart an impressive amount of education in the subject, a more efficient approach is to read one or two of the many introductory books available. Since there are so many, I have prepared a short guide to some of the best of them. All are available in paper covers, and any that you can't find locally can be ordered from the publishers.

If you want to start small and at the right price—free—the J. C. Penney Co. (Stereo Dept., 1301 Avenue of the Americas, New York, N.Y. 10019) has put out a twentyeight-page booklet called "Audio Components." It carries no advertising and is not slanted toward Penney's own products. What it does is present the kind of really *basic* basic information you need to understand common audio terms, recognize various types of components and their functions, read specifications, budget your audio dollars, and obtain the full benefit of manufacturers' warranties (a matter too often overlooked in advice to beginners).

The Institute of High Fidelity, or the IF (2001 Eye Street, N.W., Washington, .C. 20006), is a trade association of many the manufacturers whose products you e advertised or written about in these ages. One of its purposes is to educate the ublic in the use of audio products, and to at end it has prepared an Official Guide High Fidelity (207 pages, \$5.50 postpaid ithin the U.S.). This goes considerably beyond Penney's booklet, but it too is intended for the completely nontechnical reader and assumes no prior knowledge. It begins with an explanation of the rationale for using separate components in a hi-fi system and continues with chapters on selecting components, selecting and using loudspeakers (with an explanation of how they work), and on FM tuners and antennas, record-playing equipment, tape equipment, headphones, and accessories. Finally, there is a chapter on how to assemble and install a complete system. The book is structured rather like a textbook: each chapter begins with a summary of what it contains and ends with questions so you can test your understanding of what you've read. There is also a glossary of hi-fi terms and a series of tables with typical specifications for various kinds of equipment.



Another book we've been telling inquiring readers about for some time was recently updated: Gordon J. King's Master Hi-Fi Installation (151 pages, \$6.95 postpaid from Hayden Book Co., Inc., 50 Essex Street, Rochelle Park, N.J. 07662). This is roughly similar to the IHF Guide in intent and coverage, and a number of cleverly devised drawings are included for clarification. The wording occasionally betrays the book's British origin, but there's nothing that should cause problems for Americans.

A perennial basic text is Edgar Villchur's Reproduction of Sound (92 pages, \$2 plus (Continued on page 26)

DISCWASHER® AUDIDSCIENCE SERIES

Record Care, Part 1: Aqueous Cleaning vs. Organic Solvents

Electron microscopy (Figure 1) shows the principal cause of record wear: small particles of microdust, deposited from the air by gravity, are ground along the record groove by the stylus. Surface noise goes up. Sound quality goes down.



Record etched by dust held to surface by "slick" treatment



Figure 2

Figure 1

Figure 2 shows a drop of the aqueous Discwasher D4 Fluid, literally lifting dust and contamination out of record grooves. The extraordinarily complex D4 Fluid uses water pure enough for kidney dialysis, along with eleven chemically engineered additives that still results in lower dry-weight residue than most tap water. This formula is amazingly high in cleaning activity, uniquely safe for vinyl and vinyl additives, and preferentially "carries" contamination into the new Discwasher D4 pad. In some record care products, organic solvents are used rather than water. Organic solvents such as ozone-gobbling chlorofluorocarbons, petroleum distillates (hexane, heptane) and alcohol concentrates are indeed speedy extractors and delivery solvents. They evaporate fast. Some organic solvents can dissolve vinyl stabilizers, Organic solvents may leave a "slick" looking record by treating the disc with other compounds carried in the solvent mix. In doing so, record contamination may also be dried back onto the disc in a nice even layer. Dust is often "held" to the record surface by "treatment."



Figure 3

Electron micrograph (Figure 3) shows a record cleaned with the Discwasher D4 System. High technology record care leaves only a clean surface.



LET'S COMPARE **APPLES** with **APPLE**

Mura RED SET III vs. Sony MDR-3

Compare the specs Sony publishes:

	MURA RED SET III	SONY MDR-3
FREQUENCY RESPONSE (Hz)	20- 20,000	20- 20,000
SENSITIVITY (dB/mW)	98	96
WEIGHT W/O CORD (grams)	45	40

As you can see, they're virtually identical.

Now look at the RED SET specs-real specs with limits: No peak or valley of more than 2dB from 1,000 Hz reference over the frequency range of 150 Hz to 19,000 Hz. Total distortion 0.3% at 100dB output from 100 to 20,000 Hz.

The RED SET's superior performance is the result of Mura's uncompromising selection of materials regardless of cost: Samarium cobalt (rare earth) magnets for maximum flux density; 60 micron anoxic copper plated aluminum wire for light weight with high efficiency coupling; tapered, formed mylar diaphragms for full frequency résponse-the dome shaped center portions are tweeters extending the highs to 20,000 Hz, the molded in stiffeners in the outer cones prevent low frequency breakup and keep the speakers operating as air pistons down to 20 Hz.

When you consider that you can buy the Mura

CIRCLE NO. 37 ON READER SERVICE CARD

EXPAND YOUR RECORD COLLECTION WITHOUT BUYING MORE **RECORDS.**

With the Pioneer RG-2 Dynamic Processor, you'll hear everything on your records that the artists put into them. Like the extreme loud and soft passages that are lost during the recording process. The RG-2 can help restore your music to its original condition. It not only expands dynamic range up to 16dB, but it also reduces tape hiss and other noise by as much as 6dB. And you'll be glad to know our range expander is in a most reasonable price range. So you can use the money you save to expand your record collection even further.



CIRCLE NO. 67 ON READER SERVICE CARD

RED SET III for about half the price of a Sony, all comparisons end. Ask your audio dealer for a RED SET demon-9 stration today.



70¢ postage from Dover Publications, Inc., 180 Varick Street, New York, N.Y. 10014). Mr. Villchur, formerly president of Acoustic Research (AR) and credited with developing the acoustic-suspension speaker, is an acknowledged authority on audio. He once taught the subject at New York University, and he has written most lucidly about it. Although the book is now about eighteen years old, it remains a valuable introductory work (as well as a bargain). Starting with a chapter on the nature of sound, the author covers the sound reproducing system with chapters on individual component types and, understandably, on loudspeakers, speaker enclosures, and room environment.

K. W. Johnson and W. C. Walker's Hi-Fidelity: Concepts and Components for Consumers (274 pages, \$9.95 postpaid from Kendall-Hunt Publishing Co., 2460 Kerper Boulevard, Dubuque, Iowa 52001) derives from the authors' textbook/lab manual for a course on the physics and mathematics of audio. It provides an accessible yet thorough introduction to the subject for audio hobbyists. The book has a large format (about 81/2 x 11 inches) and includes helpful illustrations, charts, and cartoons. (One chart shows how hearing ability deteriorates with age; it turns out that women hold up much better in this than the fragile male.) A glossary is included, and tips on how to read specifications and select components are sprinkled throughout the book.

For those interested in something between a very elementary work and a fullblown engineering treatise, there's William F. Boyce's Hi-Fi Stereo Handbook (488 pages, \$11.95 postpaid from Howard W. Sams and Co., Inc., 4300 West 62nd Street, Indianapolis, Ind. 46268). This covers pretty much the same range of material as, say, the IHF Guide, but in considerably greater depth theoretically and mathematically.

INALLY, there are the books for those interested in doing semi-professional recording. Handbook of Multichannel Recording by Alton Everest (322 pages, \$10.95 hardbound, \$8.95 paperbound from Tab Books, Blue Ridge Summit, Pa. 17214) is totally comprehensive but nevertheless easily understandable, leading the novice in easy stages through a complex subject.

Craig Anderton's Home Recording for Musicians (182 pages, \$9.95 plus \$1 postage from Quick Fox, P.O. Box 118, Sugarloaf, N.Y. 10981) is another large-format paperback. It begins with elementary information about the nature of sound and of tape recording, then goes into the special techniques, equipment, and material needed to make good live recordings at home. And D. S. Rapaport's How to Make and Sell Your Own Record (167 pages, \$9.95 plus \$1 postage from Quick Fox, same address as above) is 11 inches square and covers everything from picking the right recording equipment to finding the right printer to make up an album jacket.

This list is by no means exhaustive, but it should give you some idea of what's available. If you know of a really good book not covered here, I would be happy to hear about it-please include the name and address of the publisher-and maybe we can do this again sometime.

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



Up unit new ne sound quality of mini-speaker was exactly what you probably imagined. minimal. Minimal bass reportse. Minimal power handling capacity. Minimal definition. That was article Do

That was until ADC perfected the incredible new M3-650 m ni-speaker system. The only thing small about it, s its size.

Here's why. Unlike conventional mini-system drivers that can overheat and distort under high power, both the MS-650's 1" bolyamide soft dometweeter and 5½" high compliance woofer are specially cooled with ferrofluid in the voice coil gap for better frequency response, lower distortion and greater power handling.

They're so affective the new MS-650 mini-speaker system can handle up to 150 watts all power! But what's even more amazing is that while it can handle all that power, t doesn't need it. A mere 20 watts rout aroduces an awesome IC2dB output. That's enough to wake the neighbors. And the whole neighborhood: Butthat's not all.

To further enhance sound quality

the MS-650's feature an effective combination of first and higher order crossover networks for a smooth, natural transition between high and low frequencies. That's a big difference between the crossover systems most mini-speakers use.

6

But the differences don't stop there. The MS-650's unique nonparallal cabinet sides were computed to allow a gradual termination of midrange frequencies at the cabinet adge. The sound you'll hear will be more natural... at all levels. Even the front face is sloped for improved phase coherency. To minimize the adverse effects of cabine resonances, the MS-650 is constructed of Bopur T.F.M., a spec ally formulated non-resonant material.

The new ADC NS-650 minispeaker system. The only thing small about it, is its size.

For your neclest ADC dealer or more information III (800) 243-9544 or write Audio Dynamics Comporation, Pickett District Road: New Milliord, Connecticut 06776.

ADC





CBS MASTERSOUND

PROMPTED, no doubt, by the commercial success of such discs as the Tchaikovsky 1812 Overture on Telarc and Mobile Fidelity's series of half-speed-mastered repressings, a "major" label has finally entered the audiophile-disc market with new and revised pressing techniques, high-technology recording processes-and audiophile prices.

Mastersound, a new label from CBS covering pop, rock, jazz, and classical music, will release (1) half-speed-mastered discs from older multi-track analog tape masters, (2) digitally mastered recordings cut at playing speed, and (3) prerecorded cassettes utilizing chromium-dioxide tape, screw-fastened housings, and Dolby-B processing. Columbia's versions of these mastertering and duplicating processes are the direct result of investigations conducted by the CBS Technology Center.

Possibly the most significant fruits of the research are the Mastersound discs themselves. They are made with an improved vinyl compound which, it is claimed, offers reduced noise and better molding characteristics than earlier formulations. The pressing process has also been modified to provide an altered disc cross section, a 12 per cent increase in disc weight, and more critical quality-control tests. The production changes have even extended into the final packaging. As with other audiophile releases, Mastersound inner sleeves are of soft plastic (with a paper stiffener) which will not adhere to the disc surface. The customary outer shrink wrap has been replaced by a reusable heavy-gauge plastic envelope. The loose-fitting envelope will not warp its contents but will provide a fairly dust-proof, long-life enclosure. These developments, especially the new vinyl compound, are important because they might eventually diffuse into the rest of the CBS product line and into those of the other major record companies.

Of course, all this research would be pointless if the resulting discs showed no improvement in quality. Happily, this is not the case; sample copies I've heard of a halfspeed-mastered Bruce Springsteen album and a digitally mastered recording of Leonard Bernstein leading the New York Philharmonic in Shostakovich's Fifth Symphony both sounded quite good.

The first thing that struck me when comparing the new version of the Springsteen album with its conventionally made equivalent was that the Mastersound disc was cut about 3 dB louder than the conventional disc. Unless this is compensated for in playback, any direct comparison between the new and old production processes will inevitably give the sonic edge to the new, louder product. However, with the overall volume levels equalized, the two discs sound very much alike. While the music is playing, the sonic limitations belong to the master tape, which does not seem to have that great a dynamic range.

The most important difference between the two pressings was the lower noise level on the Mastersound disc. Some crude measurements I made of the disc noise above 1,000 Hz indicated that the Mastersound pressing was 1 to 3 dB quieter than the conventional one-about equal in noise level to a Telarc or Deutsche Grammophon pressing. Molded-in transient noises (ticks and pops) were totally absent. The lower noise level, coupled with a 3-dB-higher recording level, makes the Mastersound pressing 4 to $6\ dB$ quieter overall than the conventional CBS pressing.

However, the higher cutting level takes more groove space and therefore requires taking the groove closer to the center of the disc. Theoretically, as the tone arm approaches the label, tracing distortion is higher and mistracking is more likely-as is a rolloff in the disc's high-frequency response. While I heard none of these problems with the Springsteen album, they could very well occur with extremely demanding source material (or if a low-quality phono cartridge were used). The Shostakovich Fifth Symphony is such demanding material, and the Mastersound pressing passes the test with flying colors. Bernstein's excellent musical performance has much to do with the overall success of this recording, for I find that the recorded sound suffers somewhat from my own pet peeve: improper microphone technique (the pressing, however, is excellent). The disc, produced by John McClure, is relatively free of the sonic and musical aberrations caused b close-in multi-microphoning (also known a multiple-mono), which tends to lend a dis tinct sense of technological artificiality te recordings. The sound here is a bit more "distant" than is the norm for CBS sessions but the sonic perspectives do shift disconcertingly at times (during solo harp passages in particular).

HERE are quite a few problems with my Mastersound cassette copy of Stravinsky's Petrouchka. Not only is it a multi-mono recording, but the high-speed copy (made at sixteen times playing speed) was apparently done at too high a level. On my copy at least, the tape seemed to have been driven into saturation at times, resulting in a distinct increase of distortion and a loss of highs. Perhaps future releases will be dubbed at more reasonable levels and speeds. The lower distortion and wider frequency response will more than compensate for the slight increase in noise.

In sum, Mastersound has made a promising debut, one that would be particularly worthy of note if it were to inspire the rest of the large U.S. record companies to undertake a general overall improvement in disc and cassette quality. It is to be hoped that CBS will in future record a wider dynamic range on their master tapes while employing simpler, more natural-sounding microphone placements where musically appropriate. The enhanced quality of the sound would then be worthy of the Mastersound advances in pressing technology.

BRUCE SPRINGSTEEN: Born to Run. Bruce Springsteen (guitar, vocals, harmonica). CBS MASTERSOUND half-speed-mastered HC 33795 \$14.98.

SHOSTAKOVICH: Symphony No. 5, Op. 47. New York Philharmonic, Leonard Bernstein cond. CBS MASTERSOUND O IM 35854 \$14.98, © HMT 35854 \$14.98.

STRAVINSKY: Petrouchka (1947 version). New York Philharmonic, Zubin Mehta cond. CBS MASTERSOUND © HCT 35823 \$14.98, O IM 35823 \$14.98.

CBS Masterworks senior producer David Mottley (left) and engineer Marty Greenblatt working at a Sony DEC 1000 digital editing controller on an upcoming Mastersound recording.



He created some of the world's most passionate music.

Yet he died whispering the name of a woman he had never met.

She was his patroness...his confessor...his "Beloved Friend" in an intimate 14-year correspondence. She was the inspiration for his most romantic works. And yet he shrank from meeting her even when she invited it.

Finally, she withdrew her support from him. Yet years later, on his deathbed, he whispered her name. In gratitude? In love? In anger? The secret died with Tchaikovsky. But the passion that Nadezhda von Meck inspired lives on in some of the most soaringly romantic melody ever penned, as you will discover in TIME-LIFE RECORDS' magnificent four-stereo-record album, *Tchaikovsky*—your introduction to the outstanding series GREAT MEN OF MUSIC.

Here is a connoisseur's choice of Tchaikovsky's creations, recorded in finest stereo sound by artists who have no peer. You'll hear Van Cliburn's rendition of the *Piano Concerto No. 1 in B Flat Minor*...Jascha Heifetz and the Chicago Symphony Orchestra (conducted by Reiner) playing the *Violin Concerto in D Major*...the *Symphony No. 6 in B Minor (Pathetique)*, performed by the Boston Symphony Orchestra, conducted by Monteux.

The boxed set on Tchaikovsky is only the beginning of GREAT MEN OF MUSIC—an unparalleled collection of the world's greatest music, performed by leading artists of our time. In future albums, you will thrill to the genius of Bach, Beethoven, Mozart, Brahms, Mahler...over 20 composers. And you'll listen with new understanding because each album is enriched with a color-filled booklet on the composer, plus illuminating notes about the music.

Start by auditioning *Tchaikovsky* for 10 days free. You'll receive four 12-inch LP stereo records (the kind that usually retail for \$6.98 each) in an elegant slipcase, the background booklet complete with Listener's Guide, AND the \$19.95 deluxe edition of *The Golden Encyclopedia of Music*—yours free just for purchasing *Tchaikovsky* and agreeing to audition future albums.

If after ten days you decide you'd like to own this \$47.87 value, it's yours for only \$24.95, plus shipping and handling. If, however, you are not completely delighted, return the album and encyclopedia and owe nothing. Send no money. Just mail the attached card. Or write TIME-LIFE RECORDS, Time & Life Bldg., Chicago, IL 60611.

FREE BOOK! (with purchase of Tchaikovsky album) THE GOLDEN ENCYCLOPEDIA OF MUSIC



\$19.95 retail value, 720 pages, 8½" x 11" More than 800 illustrations, 24 pages in full color More than 1,000 musical examples including a separate glossary of 1,000 famous names in music Lose yourself in the passion of TCHAIKOVSKY as your introduction to the Great Men of Music series.

TCHAIKOVSKY

Great Men

of Music



details ... A DIFFERENT KIND OF RECORD CLUB

You can now own every record or tape that you may ever want . . . at tremendous savings and with no continuing purchase obligations. You can get valuable free dividend certificates, you can get quick service and all the 100% iron-clad guarantees you want.

Now you can stop price increases that leave you with less music for your record and tape budget. You can guarantee yourself more music for less money through membership in Discount Music Club.

Look at these benefits:

TREMENDOUS SAVINGS

on every record and tape in print no "agree-to-purchase" obligations of any kind.

DISCOUNTS OF 43% TO 73% off mfg. suggested list . . . special catalog features hundreds of titles and artists.

ALL LABELS AVAILABLE

including most imports through special custom ordering service. If we don't stock it we'll get it for you.

SCHWANN CATALOG

lists thousands of titles; classical, pop, jazz, ballet, opera, musical shows, folk, rock, vocal, instrumental, country, etc.

DISCOUNT DIVIDEND CERTIFICATES

Dividend Gifts—Every shipment carries a dividend gift or dividend certificate. Certificates redeemable immediately for extra discounts.

NEWSLETTERS

happenings in the world of music; concerts, critiques, new releases . . . special super-sale listings at discounts of up to 73%.

DISCOUNT ACCESSORY GUIDE

Diamond needles, cloths, tape cleaners, etc. Discount Music Club is your complete one stop music and accessory buying service.

QUICK SERVICE

same day shipping on many orders ... rarely later than the next several days. Partial shipments always made in the event of unforeseen delay ... all at no extra cost to you.

100% IRON-CLAD GUARANTEES

on all products and services. Everything is guaranteed factory fresh and free of defects or damages of any sort. Your total satisfaction is unconditionally guaranteed.

Discount Music Club is a no-obligation membership club that guarantees tremendous discounts on all stereo records and tapes and lets you buy what you want \ldots or not at all if you choose.

These are just a few of the money-saving reasons to write for free details. You can't lose so why not fill out and mail the coupon below for immediate information.

CINE DISCOUNT 650 Main S	MUSIC CLUB, INC 9-1080 Street, New Rochelle, N Y 10801
NAME	
ADDRESS	
<u>CITY</u>	
STATE	ZIP

lape Talk

By Craig Stark



Better Open Reel?

Q. If cassette-deck manufacturers can make it possible to copy live music almost perfectly at 1% ips on tape only 0.15 inch wide, why can't open-reel machines produce much better results with 1/4-inch tape operating at 7/1/2 ips?

> RON RAMPOLLA Denver, Colo.

A. Good question! Cassette-tape tracks are 21 mils (0.021 inch) wide, and quarter-track open-reel stereo tracks are 42 mils wide, which gives a theoretical difference of 3 dB in signal-to-noise ratio: an improvement ratio of 2:1 in the power of the signal vs. the power of the noise. You can gain another 3 dB by going to 80-mil tracks-that is, "half-track" stereo-as the pros invariably do. And each time you double the speed, you get another 3-dB improvement (in theory) since, once again, you're pushing twice as much magnetic material past the playback head in a given period of time. Between the cassette speed (17% ips) and the usual open-reel home speed (71/2 ips) there are two such doublings (totaling 6 dB), which, coupled with the 3-dB improvement of the 42-mil track, totals 9 dB.

Don't you hear a 9-dB improvement between 71/2-ips open-reel tapes and cassettes? That's a multiply unfair question, of course, for, in the first place, while we can easily detect differences of tenths of a decibel in an A/B comparison of pure noise signals, ten times as much difference (or more) would be required in, say, the 18kHz response of a tape recorder before we can say we "heard" it with any confidence. Then, too, the Dolby noise-reduction circuits that are almost universal in cassette decks—but are rarely incorporated into open-reel decks—are *designed* to "fool" the ear.

In addition to these factors are the highfrequency "compression" and playbackequalization "time constants"; it would take several columns to discuss them fully. Reduced to basics, however, what it comes to is this: you can record more highfrequency information, at a higher recorded level, at a higher speed—but only you, the composer, and the instrumentalists know to record a specific musical selection. Except, perhaps, for archival purposes, there would be no reason in the world to use the most sophisticated studio mastering recorder you could find to record one of the early tinfoil Edison cylinders: you wouldn't be able to tell the "master copy" from what you could make with a \$79.95 cassette deck! What higher tape speeds and wider tape tracks offer is a potential for improved performance, not a guarantee of audible improvement. That potential is very important to the professional and to the serious home recordist when the original sound source exceeds the limitations of the recording medium. For most home music this is not the case, which is why you don't hear that real 9-dB difference.

whether you need that additional capacity

Four-track Mono Cassettes?

Q. Why doesn't somebody come out with a cassette deck that will record all four tracks monophonically, as most openreel decks can do? It seems to me that this would involve only a couple of \$1 switches. DON BERIGAN Houston, Tex.

Electronically, if you're willing to add A. a 15¢ resistor to your couple of \$1 switches (to give the bias oscillator the same load it would have with stereo erase and records heads), you're right. Legally, on the other hand, there has been a problem posed by Philips' insistence on format standardization as a condition of licensing the use of the phrase "compact cassette." Specifically, the problem was to ensure that a mono cassette deck could play a stereo tape. The restrictions seem to be easing, however, since Teac now has a deck (the Model 124 "Syncaset," reviewed in STEREO REVIEW in September 1979) that permits a degree of four-channel mono recording.

At the same time, however, you should be aware that the amount of channel separation provided by the spacing of the magnetic tracks on a cassette tape is limited. It's one thing to record two parts of the same (Continued on page 34)

CIRCLE NO. 17 ON READER SERVICE CARD 32

HIGH PERFORMANCE HIGH BIAS.



AMPEX GM II HIGH BIASTAPE.

When you're recording music that's rich in high frequencies, you need a high performance tape. Ampex GM II high bias cassettes. They retain and release every note and nuance. Especially those found in highly amplified electronic music.

GM II's high performance begins with the magnetic particle. The ones we use are smaller, permit higher volumetric loading and greater uniformity of dispersion on the tape surface. This produces a more consistent energy, increased output sensitivity, and a substantial reduction in the third harmonic distortion level. Our unique oxide formulation and new processing techniques extend the high end while they lower the noise floor (-62.8dB @ 333Hz). And to make certain that tape-tohead contact is precise, we use our exclusive Ferrosheen™ calendering process to give the tape an ultrasmooth, glossy surface.

GM II's True-Track™ cassette mechanism is an audio achievement in and of itself. Every aspect, from the fore and aft guide system to the computertorqued cassette housing screws, says high performance. Then every Ampex cassette must pass our stringent quality control standards.

GM II high bias, high performance tape. Use it next time you're recording a passage that's rich in high frequencies. You'll hear what a difference it can make when your high bias tape delivers high performance.

For complete information and specifications

on all Ampex premium tapes, write us for a copy of our Full Line Brochure.



Ampex Corporation, Magnetic Tape Division, 401 Broadway, Redwood City, CA 94063 415/367-3888 CIRCLE NO. 4 ON READER SERVICE CARD

Even after 100 plays your records will sound BETTER THAN NEW with Lifesaver!

Introducing LIFESAVER[™] with DiscProtec[™] formula, the multipurpose record treatment from Audio-Technica. It's a longterm antistatic agent which lasts 100 plays or more. And a record preservative which protects against environmental attack and improves the effectiveness of any wet or dry record cleaner.

But LIFESAVER is also a dry lubricant which sharply reduces record-stylus friction. Tests* prove lower harmonic distortion from a disc treated with LIFESAVER after 100 plays than from the first play of an identical untreated record!

Your records will sound cleaner and quieter from the very first play with LIFESAVER. And 50 or even 100 plays later they'll still sound better than new. Just one easy application protects your library for years.

Enjoy better sound today and tomorrow with LIFESAVER! See dramatic proof at your Audio-Technica dealer today, Audio-Technica U.S., Inc., 1221 Commerce Drive, Stow, Ohio 44224. Dept. 100F. In Canada: Audio Specialists, Inc., Montreal, P.Q.

* From independent lab tests reported by Len Feldman in Audio Magazine, February, 1980. Write for your free reprint.



Harmonic distortion of an untreated disc during first playing



Harmonic distortion of an identical disc, first playing after LIFESAVER treatment. Distortion is immediately reduced.

audio-technica

INNOVATION D PRECISION D INTEG

AUDIO-TECHNICA PROFESSIONAL AND HOME PRODUCTS FOR BETTER SOUND



Harmonic distortion of an untreated disc after 100 playings



Harmonic distortion of a LIFESAVER-treated disc after 100 playings. Distortion remains lower than a new, untreated disc.

LIFESAVER LS-1

with DiscProtec"

formula. Treats

60 sides. \$12.95

musical piece in sync with each other, as the Teac deck permits you to do. It's quite another thing to record totally *different* material on left- and right-channel tracks that are located within 0.012 inches of each other. Audible signal leakage between the tracks is inevitable.

Compatibility Problem

Q. I have two cassette recorders: a stereo deck and a battery-operated mono portable. Tapes made on the component deck are fine when played on it, but when played on the portable they sound distorted. Is there any reason for this?

GARY W. CAPRIOTTI Hamilton, Ontario

A. There are several possible explanations, starting with the very real possibility that your portable machine simply isn't designed to handle the frequency and dynamic (loud to soft) range of the recordings your component cassette deck can produce.

Not impossibly, however, you may be hitting the same problem that bedevils broadcasters and studios alike, namely, that some stereo signals won't "mix down" properly into mono. You probably expect to lose some high-frequency response when you play a good tape on your battery-operated portable, so you mentioned only "distortion." But a slight difference in the azimuth (perpendicularity) alignment between the mono playback head of your portable and the stereo head of your component deck can introduce phase differences between "leftchannel" and "right-channel" signals that are discrete entities on the stereo tape but are automatically combined by a mono head that "reads" both tracks simultaneously. The odd reinforcements and cancellations within the overall combined signal often produce the "distortions" I suspect you are experiencing.

Timer Tricks

Q. Every cassette deck I see these days seems to have a switch for "timer record" and "timer playback"—using, of course, an external, accessory timer. I can understand the point of being able to switch on my recorder and tuner to record a selection being broadcast while I'm not at home. But what am I supposed to use the timer-controlled playback function for entertaining my cat when I'm out?

WAYNE MILLWARD Newton, Mass.

A. I must confess that when I first saw this "feature" on a cassette deck I had the same question. It is, I suppose, conceivable that some audiophiles like to fall asleep to music and (a) are unable to do so without wondering if the cassette will run out and shut off first, and (b) have a timer-controlled system that does not produce a turn-off "thump" loud enough to wake the dead. Alternatively, one might wish to use timer actuation to wake up early in the morning to the final minute of Tchaikovsky's 1812 Overture rather than to a more conventional alarm clock.

STEREO REVIEW



Blue sky, clean air—a perfect day to hit the dirt. But that good off-road trail is down the road some 90 miles.

No sweat. Getting there in your four-wheeler can really be half the fun. And that's where the Sparkomatic Sound comes into play.

prior. If your ears listen to ears of experience, Sparkomatic sound equipment is the best there is—# 1. That opinion from "the source" in consumer reporting. We won out on the things judges judge. Sparkomatic out-performed every name you can name, and then some.

Don't just take their word, judge for yourself. We do think your ears will agree with the experts. Test our SR 303 auto reverse

cassette AM/FM Stereo (one of a wide range of models we offer). It's a perfect example of first-place sound and value. It delivers all the watts you want with distortion-free (less than 1% THD) efficiency. If specs on frequency response, sensitivity and capture ratio count with you too, you'll surely give the SR 303 consistently

high marks. Pick it for your own and virtually forget "picket fencing". And the auto reverse cassette player clearly turns in prize winning performance.



You won't have to spin your wheels looking for the optimum speaker package either. Sparkomatic's SK 522T three- way surface mounts combined with SK 600 ultra-thin coaxial door mounts for limited space installation will fill your driving space with beautiful sound. They take tremendous power in

SK 600 _1½"_____ give back superbly

separated high fidelity reproduction. It's like hearing it live.

Don't wait. Make tracks for your nearest Sparkomatic dealer. Now that's using your head.



SPARKOMATIC® For the Travelin' Man...and Woman®

THE SPARKOMATIC SOUND. FOR THE TRAVELIN' MAN'S EARS AND WHAT'S IN BETWEEN.



Installation of the Month By Robert Greene



Using human-engineering principles he learned while working with aircraft designers, West Coast resident Will Cloughley has built an audio-system housing he finds both practical and convenient. The equipment is arranged so that all electronic controls are within his easy reach from a rolling swivel chair that can be placed in front of the cabinet; the turntable and record collection are readily accessible when he stands up.

Each of the equipment compartments, which are designed to accept units up to 19 inches wide (standard rack-mounting size), is ventilated from below through ducts that are part of the cabinet's styling. A fan draws air in through slots in the front just beneath each equipment shelf, blows it through the electronics, and expels it at the rear.

Two drawers flank the B&O Model 4002 turntable (modified for use with a Grado Signature III cartridge) on the illuminated central shelf. At present these provide storage for record-cleaning accessories, but they can be removed to make room for a second turntable or other new equipment. Four of the lower drawers are specially built to hold boxed tape cassettes, each in its own slot with finger room for easy access.

The lower half of the cabinet has three vertical divisions. The leftmost one holds, from top to bottom, an Apt preamplifier, a Technics ST-9030 stereo FM tuner, and a Yamaha B-2 power amplifier. The two large chassis in the center portion (below the turntable) are both sections of a Technics RS-9900US cassette deck; the upper one holds the electronics and the lower one the transport mechanism. The two small units at the bottom are a Stax SRD-7 headphone energizer and a clock, with room between them for storing the Stax headphones. The righthand division of the lower cabinet holds a B.I.C. Beam Box antenna, a Nakamichi program timer, and an industrial multiple switching device that makes it unnecessary to run all the various components' a.c. power lines through the preamplifier's convenience sockets. The cabinet is made of solid oak and oak plywood throughout, and the upper half is detachable to facilitate moving. The back panel can be removed to give access to the wiring. The speaker systems that complete the installation are KEF Model 105s.

Mr. Cloughley works as a medical photographer and produces audiovisual material for which he does the sound recording and mixing. He is interested in music from India and in jazz, and he spends a great deal of time recording amateur musicians with whom he sometimes sits in.

s your system an Installation of the Month? To find out whether it is, send a clear snapshot and a brief description of its components to STEREO REVIEW, Dept. IOTM, One Park Ave., New York 10016.
The Acoustic Matrix Enclosure of the Bose 901 Series IV Direct/Reflecting Speaker.

cone motion.

This virtually eliminates

shaped to control and

The characteris-

Electronic Equalization of

the Bose 901 system. Together,

The Âcoustic Matrix[™] enclosure is just one of hundreds of improvements developed since the introduction of the original 901 speaker. If so much thought,

they can reproduce even the lowest bass notes with clarity and power unmatched by any speaker of conventional design. *Regardless*

smooth air motion.

tics of this enclosure

accurately comple-

ment the full-range

drivers and Active

of size or price.

distortion while increasing low-

surfaces are aerodynamically

frequency power output. Critical

The wooden sides, top and bottom are joined to the molded structure with patented joints that are airtight and stronger than the wood itself.

A tapered central core helps smooth air flow.

The third, smaller air column operates on the front _____ driver alone

This enclosure has more engineering and technology behind it than most complete speaker systems.

Conventional speaker enclosures are simple wooden boxes. The Bose 901 loudspeaker has wooden sides, top and bottom. But inside is a structure so precise, complex and rigid, that it can only be manufactured by advanced injection molding techniques.*

The Acoustic Matrix[™] enclosure contains 14 distinct regions which act as acoustical elements. Some isolate the nine Helical Voice Coil drivers as if each had a separate enclosure. In others, air moves at speeds up to 100 km/hour to reduce unnecessary



Dense, uniform particle board is finished with genuine walnut veneer.

> Air flow from the rear of four drivers is combined in this region.

Each of the two large reactive air columns loads the rear of four driver cones.

Each of the nine HVC (Helical Voice Coil) drivers is housed in a separate chamber to insure proper isolation. The nine drivers working together provide a cone area equivalent to that of a 13" woofer.

Precise assembly is guaranteed by computer controlled routing of all grooves in the wood parts.

effort and design go into the enclosure alone, imagine what goes into the complete 901 system.

Ask for a demonstration of our 901 loudspeaker at your local authorized Bose dealer. For more information, write Bose Corporation, Dept. SR, Mountain Road,

Framingham, MA 01701.



The complete Bose Direct/ Reflecting[®] System contains *eighteen* HVC drivers.



Better sound through research.

*Recently recognized by Engineering/Design magazine with an award for ingenuity in utilization of plastic. Covered by patent rights issued and/or pending. © Copyright 1980 by Bose Corp.

THE ONLY OTHER WAY TO GET THIS KIND OF DYNAMIC RANGE IS TO HIRE YOUR OWN ORCHESTRA.

At a live performance, you normally experience about 90



decibels of dynamic range. In other words, the difference in volume between the loudest and quietest passages is about 90dB. But that's not what you get from your

Conventional records and tapes compress dynamic range. dbx components help restore it to the level of a live performance.

Because of conventional recording processes, your records are limited to just 50dB of dynamic range, or 60dB at the very best. Tapes and broadcast can be as limited as 40dB.

Now dbx technology solves that problem. Dramatically. In two different ways.

1. The 3BX. For conventional program sources.

The 3BX Dynamic Range Expander can restore the dynamic range of every conventional record and tape you own. FM broadcasts, too. For example, the 3BX can deliver up to 75dB from conventional records—better than the so-called audiophile discs, including direct-to-disc and digitally mastered recordings. And the 3BX also reduces the ticks, pops and record surface noise that interfere with quiet musical passages.

2. The dbx Model 21. For dbx encoded discs.

For the ultimate in dynamic range, you can add the dbx Model 21 Disc Decoder to your present system, and play the revolutionary new dbx Discs and Digital dbx Discs.

These specially encoded discs are the world's first records to deliver the full dynamic range of live music. Up to 90dB or more. Plus they virtually eliminate record surface noise. So for the first time you can experience the dynamic range of a live performance, heard against a background of virtual silence.

And you can choose from a growing library of dbx Discs, including everything from the London Symphony and the Boston Pops, to Neil Diamond and The Who.

Hear it today.

To really appreciate what dbx technology can do for the dynamic range of your music, you have to hear it for yourself.

Visit an authorized dbx retailer near you for a demonstration, and take home the ultimate in dynamic range.

It's a lot easier than hiring your own orchestra.

dbx, Incorporated, 71 Chapel Street, Newton, MA 02195. 617-964-3210.

Free dbx 21 offer.

During the dbx "Best of Both Worlds" promotion, from Sept. 2 until Nov. 30, 1980, you can get a free dbx Model 21 with the purchase of a 3BX Dynamic Range Expander through participating U.S. dbx authorized retailers in continental U.S., Hawaii and Alaska. Also check out the latest releases from the growing DBX DISC CATALOGUE.

Offer void where prohibited by law.





An Important New Power-amplifier Design

HE first-announced product of the Carver Corporation, the M-400 "magneticfield" power amplifier, aroused quite a bit of speculation as to its "mysterious" operating principles. The circuit techniques necessary to produce a 200-watt-per-channel amplifier that is about one-fifth the size and weight and less than half the cost of similarly rated conventional designs are certainly of interest not only to technically minded audiophiles but to competing manufacturers as well. The Carver Corporation is currently negotiating licensing with a number of major manufacturers, so the new design approach is likely to be appearing in many receivers, integrated amplifiers, and soundreinforcement systems in the next several vears.

One of the several "secrets" of the Carver M-400 is a power supply whose output voltage tracks the audio-signal waveform, supplying the amplifier portion of the unit with just enough d.c. voltage to meet its moment-to-moment requirements. Not only does this relieve the amplifier's power-output transistors of unnecessarily high power dissipation when the signal level does not require the full operating voltage (which is most of the time), but the novel methods of varying the power-supply voltage dynamically and of developing high levels of d.c. supply voltage from small, lightweight components are uniquely simple and efficient. (These methods will be described later.)

Designer Bob Carver likens the power supply's operation to that of a rotating switch, or *commutator*, that selects the lowest supply voltage that will handle the instantaneous value of the signal. The powersupply output is used to power a more or less conventional linear-feedback circuit that would normally be able to deliver about 15 watts continuous output. When under the control of the commutator, this small amplifier has a 200-watt potential even while functioning as a clean 15-watt unit under low-signal conditions. The magnetic-field amplifier circuit operates coolest under idling or low-power conditions (which is the usual situation in home hi-fi listening), so the effective efficiency of the M-400 is therefore far higher than that of any conventional amplifier. Carver has taken advantage of the high efficiency of his design to virtually eliminate the usual heat sinks which account for much of the weight, bulk, and cost of a conventional power amplifier. (I say "virtually" because the chassis of the M-400 is its "heat sink," aided by air passing through ventilating holes.)

HE magnetic-field amplifier takes its name from a novel power-supply design that is dramatically lighter, smaller, and less costly than a conventional supply of similar capabilities. Most power supplies have a transformer whose a.c. output voltage is rectified, with the resulting d.c. voltage charging large capacitors. In addition to filtering hum components from the power-supply output, the capacitors form a reservoir that supplies short-term bursts of energy to the amplifier stage. The capacitors are replenished during the longer intervals when less power is required. As anyone who has ever lifted a 200-watt-per-channel (or larger) amplifier will appreciate, such a power supply can be very heavy, and it also accounts for a large part of the amplifier's total bulk and cost.

The power-supply components inside the M-400 look superficially like those in a relatively low-power conventional supply. There's a small transformer of normal appearance, but the filter capacitors are much smaller than one would expect to see in a high-power amplifier. The "transformer," which Carver calls a "magnetic field coil," has unusual magnetic properties in addition to its normal transformer function of reducing the 120-volt a.c. input to a lower, more suitable voltage. Its primary current (the 120-volt a.c. input) is switched on and off by a "triac," a power-switching semiconductor device. The triac is turned on during a varying portion of the 60-Hz cycle by control circuitry influenced by several factors, among them the power requirements of the audio signal itself.

A detailed technical explanation of the operation of the Carver M-400's power supply is beyond the scope of this report, but, in essence, what it does is to store a large part of the energy required by the amplifier system in the magnetic field of the coil instead of relying entirely on conventional (and large and expensive) filter capacitors. Much of the primary current drawn from the power line by this supply is 90 degrees out of phase with the line voltage. This "quadrature" component of current does not represent power drawn from the line, so the true consumption of the M-400 (the part that shows up on electricity bills) is quite low. Still, the amperage drawn by this amplifier can be surprisingly high under full-power operation; it is fused for 15 am-

Tested This Month

Scott Model 166 Speaker

Carver M-400 Power Amplifier
Pickering XSV/4000 Cartridge

Technics RS-M24 Cassette Deck
Yamaha P-750 Turntable

peres and should be operated from a circuit that can supply that current.

Another novel aspect of the M-400 is the fact that its two channels are driven out of phase (one is an inverting configuration, the other non-inverting). Thus the "hot" side of one channel's output has a black binding post that is not at chassis-ground potential. (This presents no problems in normal use since the speaker-output terminals are conveniently marked and color coded, but one *cannot* use a common-ground connection between the two black terminals.)

A major advantage of this arrangement is that more of the power-supply capacity is made available at very low frequencies, since one channel will be drawing most of its current from the positive supply while the other is loading the negative supply, unlike the usual situation in which both channels are pulling their maximum current from the same supply at the same time. The out-of-phase connection also makes it easy to use the M-400 as a high-power mono amplifier, with the speaker connected across the two "hot" outputs and the inputs driven simultaneously by a single input signal.

HE Carver M-400 has quite a few other features; most deal with amplifier and speaker protection, and all are described in the M-400 test report starting on page 46. But the three features discussed here (the tracking power supply, the magnetic-field coil, and the inversion of one channel) are the ones which make it possible for this small and relatively inexpensive unit to have the power-output capabilities of a much larger conventional amplifier. There is, I think, an excellent chance that the Carver approach will have the same influence on future amplifier circuitry that the introduction of the acoustic-suspension technique had on loudspeaker-system design. \Box



Spectrum-analyzer display of the Carver M-400's output in the IHF IM-distortion test (see report on page 46.) High peaks at right are 19- and 20-kHz input signals, 0 Hz at far left. Nexthighest (arrow) is the 18-kHz thirdorder distortion product. Small peaks are other IM products and noise.

Equipment Test Reports By Hirsch-Houck Laboratories



THE Scott Model 166 is what is often called a "minispeaker," although it is relatively large compared to some of the others currently available. But it is small enough to fit almost anywhere, and it has no pretensions to being a piece of furniture. It is not designed to be played at very high levels in a large room, but—as our tests showed—it will deliver a loud sound level in small- to medium-size rooms and is rated for a full frequency range (within the physical limitations imposed by its size).

The Model 166 is a two-way system whose 6^{1/2}-inch acoustic-suspension woofer crosses over at 2,200 Hz to a 1-inch dome tweeter. The system impedance is nominally 8 ohms, and it is designed to have at least 7 ohms impedance over the full audio range. The nominal rated power-handling ability of the Model 166 is 70 watts, and it can be used with amplifiers rated to deliver between 10 and 100 watts per channel. The frequency response is specified as 55 to 20,000 Hz ± 4 dB, and the rated sensitivity is a rather high 92.5-dB sound-pressure level measured at 1 meter when driven by 1 watt of pink noise.

One of Scott's stated goals in developing the Model 166 speaker was to make available the best possible reproduction for limited-space situations. It was also designed to be played at unusually high sound levels (for a small speaker), and to this end its voice coil employs high-temperature wire wound on a bronze form, and there is a vented pole piece to help cool the voice coil further. According to Scott, no special precautions are needed to prevent woofer burnout even when the speaker is driven by a high-power amplifier.

The particle-board enclosure of the Scott Model 166 is finished in walnut-grain vinyl veneer. The removable grille is covered in dark brown cloth. The Model 166 is 13 inches high x 71/2 inches wide x 61/2 inches deep, and it weighs 101/2 pounds. Suggested retail price is \$119.95.

• Laboratory Measurements. The recommended placement of the Scott Model 166 is against a wall at approximately ear level, and we installed our test speakers in that manner. The semi-reverberant-field frequency-response curve was spliced to a close-miked bass response curve, resulting in a composite frequency response flat within ± 2 dB from 70 to 9,000 Hz. The highfrequency output rose smoothly above about 5,000 Hz to a maximum of +5 dB in the 17,000-Hz region, and it dropped off slightly at higher frequencies. The maximum bass output was at 100 Hz, where it was 4 dB higher than in the upper part of the woofer's operating range; it fell off at the expected 12-dB-per-octave rate below the 85-Hz bass resonance. The overall vari-(Continued on page 46) 1939...FIRST DIRECT-DRIVE TURNTABLE SYSTEM. 1951...FIRST MOVING-COIL CARTRIDGE. 1972...FIRST DIGITAL (PCM) RECORDING.



1980...DENON'S DP 60 - L DIRECT-DRIVE TURNTABLE.

The latest stage in Denon's refinement of direct-drive is the DP-60L Semi-Automatic Turntable. It uses a unique AC Servomotor with a quartz "clcck" speed-reference to achieve exceptional torque and speed accuracy, while eliminating the corrective speed surges that degrade the performance of other direct-drive turntables. The DP-60L is supplied with two plug-in tonearm wands one straight and one S-shaped—to assure a precise match-up with the characteristics of any phono cartridge.

with the characteristics of any phono cartridge. The result? Musically cleaner sound, free of sonic smearing. The Denon turntables for 1980: Six musical instruments from the company where innovation is a tradition.



In 1939, while many turntable manufacturers were trying to make the transition from horn phonographs to electrical record players, Denon developed its first direct-drive turntable, (shown above). Denon engineers discovered that only a direct connection between motor and platter - free of the pullevs or belts found in more primitive drive mechanisms-could completely eliminate speed fluctuations that obscure musical detail. Today, many turntable makers have dis-

covered the virtues of direct-drive. It is now the accepted means of approaching state-ofthe art performance. But only one company has had 40 years to refine the direct-drive principle. It is the same company that 29 years ago developed another technology now in widespread use: the Moving-Coil Cartridge It is the same company that changed the entire process of recording music by inventing dig!tal (PCM) recording. The company is Denon.

DENON Imagine what we'll do next.

An important achievement in record quality

Proof-quality records that offer clearer sound, true fidelity, anti-static performance and are produced in a dust-free "Clean Room"



Franklin Mint proof-quality records are pressed in a dust-free. atmosphere-controlled "clean room," where careful methods of production and inspection assure the high quality of these great recordings

The records in this unique collection of The 100 Greatest Recordings of All Time have been produced to the highest standards possible. Each record is exceptional for its clarity as well as its tonal quality-capturing the beauty both of today's finest performances and of the historic performances of the past.

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

Ordinary records (even new ones) can have dust particles embedded in their grooves, and the types of vinyls used increase surface noise. But because Franklin Mint records are produced from this exclusive vinyl formula, they effectively resist dust and capture a fuller sound.

To further assure their quality, the Franklin Mint records are pressed in a special "clean room," similar to the facility in which the mint produces its flawless proof-quality coins. In this atmospherecontrolled clean room, technicians wear vinyl gloves and every precaution is taken to ensure protection for every record. Here, the most



(left) You normally can't tell if the record you buy was the first or last to come from a record stamper, or if the stamper was made from a defective metal mold. But (right) The Franklin Mint Record Society aurally auditions a greater number of pressings than most other producers. And every metal mold is actually played from start to finish, before it is used to produce stampers

meticulous attention is paid to the pressing of the records-in order to greatly minimize noise, to assure a quieter, clearer record and to make certain that the full quality of each original recording is faithfully preserved.

Together, these important features enable The Franklin Mint Record Society to create a collection of proof-quality records-records that offer greater clarity of sound and are quieter and clearer. To attest to this high standard of proof quality, each record bears the distinctive mintmark of The Franklin Mint

Most of the recordings in the collection are in full stereophonic sound. But naturally, the very early recordings are monaural. However, all of the records throughout the series reflect the highest fidelity possible-and all are playable on any stereo phonograph or system. No special equipment is needed.

In addition, the recordings of legendary greats such as Enrico Caruso, Rosa Ponselle, Feodor Chaliapin and Giovanni Martinelli have been remarkably improved by electronically removing imperfections that were present in the earlier recordings, thus enabling you to now hear these glorious voices more nearly as they sounded in the actual performances.

Rarely if ever have records of such distinction been produced. Rarely if ever has so much time and attention been devoted to their creation. And these are the superior records which you will receive when you become a subscriber to The 100 Greatest Recordings of All Time-the ultimate private library of recorded music.



Ordinary records (left) may warp, causing "skipping" and distortions in sound. But Franklin Mint proof-quality records (right) are 36% thicker and heavier than ordinary records and are, there fore, less likely to warp



Ordinary records (top), have static charges that attract dust. causing surface noise when the record is played. But the special vinyl used in Franklin Mint records (bottom) has a built-in anti-static element that assures clearer sound Electrostatic meter tests show that the Franklin Mint record has only one-fifth the static charge of an ordinary record.





or the first time in history, the world's greatest works of music-and the greatest recorded performances of those works-have been brought together in one unique collection of distinctively high-quality records. Truly the ultimate collection of fine recorded music.

These are the supreme masterpieces of man's musical genius, performed by the most outstanding artists of the century. Together, they form a record library unprecedented—and unsurpassed—in the entire history of music. The 100 Greatest Recordings of All Time.

The greatest music -and the greatest performances

An international panel of renowned music authorities was appointed to participate in the selection of these great recordings. This distinguished panel considered countless recordings of each of the greatest works of music-a momentous task.

For instance, members of the panel reviewed 24 recordings of Beethoven's 7th Symphony and chose the one recording they considered superior to all others: Toscanini with the New York Philharmonic.

From 30 great recordings of Tchaikovsky's Nutcracker Suite, the panel selected the one greatest performance: Arthur Fiedler and the Boston Pops.

Similarly, the recordings of other great symphonies, concertos, sonatas, rhapsodies, ballet and vocal music were reviewed and the most outstanding performance in each instance recommended.

The creation of this definitive collection has been made possible through the cooperation of leading record companies both here and abroad. And now, The 100 Greatest Recordings of All Time is being issued by The Franklin Mint Record Society.

Among the works chosen for this collection are immortal masterpieces by Beethoven, Brahms, Mozart, Tchaikovsky, Schubert, Rachmaninoff, Debussy, Verdi-performed by such superb artists as Vladimir Horowitz, Jascha Heifetz, Enrico



The Franklin Mint Record Society presents the ultimate private library of recorded music.

eatest Recordings of all time

A unique collection of the greatest performances ever recorded, selected by an international panel of music authorities and presented on 100 records of superb proof quality.

Caruso, Van Cliburn, Isaac Stern, Artur Rubinstein, Leontyne Price — with the world's finest orchestras under the direction of such great conductors as Toscanini, Ormandy, Bernstein, Stokowski, von Karajan, among others.

In every sense, the ultimate private library of recorded music—to be cherished for a lifetime, and presented as a legacy to later generations.

Handsome library cases provided

To house these magnificent proof-quality records, special library cases are provided for all 100 records in the collection. Each hardbound library case holds two long-playing 12" records and is attractively designed. Displayed in a bookshelf or cabinet, these handsome library cases will be an impressive addition to any home.

The fifty library cases also include specially written and illustrated commentaries discussing the great masterpieces and their composers, and providing fascinating background on the orchestras, conductors and soloists.

Thus, you will enrich your understanding of great music — and you will introduce your family to a world of pleasure and cultural satisfaction.

Created solely for subscribers to this series The 100 Greatest Recordings of All Time is produced exclusively for those who enter subscriptions to this series. The collection may be acquired only by subscription from The Franklin Mint Record Society. It will not be sold in any record stores.

To begin building your private library of the world's greatest performances on *proof-quality* records, mail your application by November 30, 1980.

The Advisory Panel

MARTIN BOOKSPAN, music critic, commentator of New York Philharmonic radio concerts

SCHUYLER G. CHAPIN, Dean of the School of the Arts. Columbia University

FRANCO FERRARA, member of the faculty of the Academia di Santa Cecilia, Rome

R. GALLOIS MONTBRUN, Directeur, the Conservatoire National Superieur de Musique, Paris

IRVING KOLODIN, music editor of The Saturday Review, faculty member, the Juilliard School

WILLIAM MANN, senior music critic of The London Times, author of books on Mozart, Each, Wagner

MARCEL PRAWY, Professor, Vienna Academy of Music

ANDRÉ PREVIN, Principal Conductor of the London Symphony Orchestra

WILLIAM SCHUMAN, composer, first winner of Pulitzer Prize for music

H. H. STUCKENSCHMIDT, member of the Akademie der Kuenste, West Berlin

The 100 Greatest Recordings of All Time

Please mail by November 30, 1980. Limit: One collection per subscriber.

The Franklin Mint Record Society

Franklin Center, Pennsylvania 19091

Please enter my subscription for *The 100 Greatest Record*ings of All Time, consisting of one hundred proof-quality records in specially designed library cases. I understand that I may discontinue my subscription at any time upon thirty days' written notice.

No payment is required at this time. I will be billed for each record in advance of shipment at \$9.75* plus \$1.75 for packaging, shipping and handling. My records will be sent to me at the rate of two per month.

*Plus	my	state	sal	es	tax
-------	----	-------	-----	----	-----

Signature	
Mir. Mirs. Mis.	ALL APPLICATIONS ARE SUBJECT TO ACCEPTANCE.
	PLEASE PRINT CLEARLY
Address	
City	
State	Zip

GUARANTEED PRICE: In spite of strong inflationary pressures in the record industry. the price of \$9.75 per record will be *guaranteed* to each subscriber by The Franklin Mint Record Society for every record in the collection. ation between the specified 55- to 20,000-Hz limits of the speaker's response was ± 6 dB.

The tweeter dispersion was very good up to 10,000 Hz, and above that frequency the output readings from the left and right speakers diverged by 6 to 8 dB. We measured the speaker's sensitivity with an octave band of random noise centered at 1,000 Hz instead of the full-bandwidth pink noise used by Scott. Since our choice of frequency happened to fall in the lowest output range of the speaker, we obtained the slightly lower reading of 88 dB sound-pressure level at 1 meter with 2.83 volts drive (1 watt into 8 ohms). This is still relatively high sensitivity for an acoustic-suspension system.

The bass distortion, not surprisingly, was higher than would be typical of a woofer of larger diameter. Even so, it could hardly be called excessive in the context of low-frequency loudspeaker distortion. With a 1watt input to the speaker, the distortion was less than 1 per cent from 100 down to 90 Hz, rising smoothly to 3 per cent at 55 Hz and 6 per cent at 40 Hz. It was still only 10 per cent at 30 Hz, a figure that would have been noteworthy for a full-size speaker system prior to the development of the acoustic-suspension design. The limitations of the small woofer became evident when we drove it at a 10-watt level. Starting from 1.5 to 2 per cent in the 100-Hz range, the distortion climbed rapidly to 10 per cent at 55 Hz and nearly 16 per cent at 35 Hz.

The impedance was between 6 and 8 ohms over almost the entire audio-frequen-

cy range, reaching its maximum of 22 ohms at the 85-Hz bass resonance and minimum of about 6 ohms at 3,200 Hz. The 1,000and 10,000-Hz tone-burst waveforms were quite good except for a region around the crossover frequency in which the interference between the woofer and tweeter outputs prevented a clean burst from being picked up by the microphone. Although there is no clear agreement on its audible significance, the cancellation effect was unmistakable on a scope screen.

• Comment. We were impressed by the well-balanced sound we heard from the Scott Model 166s. In fact, it was often hard to be sure whether we were hearing them or some of the much larger speakers set up nearby for comparison. The Model 166 does not sound at all bass-shy, and in side-by-side comparisons with some highly regarded speaker systems it proved to have very similar midrange and treble characteristics. Although in such comparisons the reduced low-bass output of the Model 166 was often apparent, it never sounded deficient in reproducing the lower frequencies of music programs when heard by itself.

Our distortion measurements, plus the inherent limitations of a very small bass driver, did not offer much promise for extending the low-end response of the speaker by equalization. Nevertheless, by means of a good octave-band equalizer and a pinknoise source, we were able to equalize the acoustic output of the speaker to make it nearly flat (at the listening location) from 32 to 20,000 Hz. Since this required some 15 dB of low-end boost (but relatively minor modifications elsewhere), we did not really expect the final sound quality to rival that of a larger speaker, and we were also dubious about applying high power to the speakers.

To our amazement, the Scott Model 166s took this equalization in their stride. When the pair was driven by the full output of a 120-watt-per-channel receiver, they sounded open and unstrained, with no obvious signs of distortion or stress. Even if they did not match the sound of some large floor-standing speakers, they certainly did not sound like minispeakers! However, the use of equalization does not really seem to be necessary to extract a full high-fidelity sound from these speakers (and even with equalization they will not be able to rattle the dishes and put cracks in a plaster wall!).

In short, except for its size, there is very little that is "mini" in the Scott Model 166. We have been living with a pair of them for several weeks and find them just as listenable as some speakers that outclass them by five times in price and a much larger ratio in weight. From where we sit, it sounds as if Scott has made just the right set of design compromises in the Model 166; the result is a remarkably fine-sounding loudspeaker system that will not strain even the flimsiest bookshelf, let alone a somewhat limited budget.

Circle 140 on reader service card



THE Carver M-400 "magnetic-field" amplifier is a basic power amplifier quite unlike any other ever developed for highfidelity applications. It is a nearly cubical, pale-gold-finished box about 7 inches on a side; it weighs less than 9 pounds. This small amplifier is rated to deliver 201 watts per channel to 8-ohm loads from 20 to 20,000 Hz with no more than 0.05 per cent total harmonic distortion. It can safely drive

speaker-load impedances as low as 2 ohms without fan cooling, and it has a built-in mono mode of operation in which it can deliver more than 500 watts to an 8-ohm load.

In this month's "Technical Talk" column there is a necessarily sketchy, much-simplified description of the way in which the Carver M-400, so light that it can be held in one hand, manages to develop its huge power output. In addition to this "much in little" aspect, the amplifier has a number of other novel features that recommend it. For example, no matter how efficient the M-400 might be, it must still be able to dissipate some heat even though it lacks the usual means-physical size-for doing so. Without the large thermal mass of a typical chassis-and-heat-sink system, the Carver M-400 can heat up with remarkable speed-and cool down just as fast. In normal service as part of a home music system, the average power output is low and the amplifier remains cool. If it is driven hard for some time, or if it is tested on the bench with continuous signals, its internal temperature could rise significantly, but it cannot get hot enough to be a hazard to external objects or people.

Apart from temperature considerations, any amplifier is subject to abuse from overdriving or use with a very low-impedance load that demands too much current from its output devices. Conventional amplifiers employ such means as current-limiting circuits, relays that disconnect the outputs under unsafe operating conditions, or output fuses to protect both the speakers and the output transistors. The Carver M-400 has what may well be the most comprehensive protection system ever used in a homeentertainment amplifier. It has neither relays nor any of the usual current-limiting circuits (which have been known to cause (Continued on page 48)

Its mother was a computer. Its father was a Kenwood.



THE KENWOOD KR-770 RECEIVER

We think our new KR-770 is the most intelligent high performance receiver in the world.

The heart of our new receiver is its remarkable brain. A microprocessor-controlled quartz synthesizer tuning section, which uses Kenwood's unique computerized digital frequency encoding system to provide incredibly accurate, drift-free AM and FM stereo reception.

There's also a lot of convenience engineered into our computer-memory receiver. Like automatic station scanning. Six AM and six FM digital tuning presets which you can program to instantly address your favorite stations. And a lithium battery powered memory-safeguard system to save the programming in your receiver's digital memory in case of power loss.

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

HI-SPEED

And for performance, the KR-770 provides a long list of innovative Kenwood engineering features. Like Hi-Speed[™] circuitry for exceptional musical clarity. DC to give crisp,

clear bass response down to 0 Hz. Our new Zero Switching output circuits to eliminate crossover distortion. And wide and narrow IF band circuitry to maximize FM reception.

You also get digital frequency read-out. LED indicators for power output, signal strength and function controls. Plus a built-in equalizer.

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

For the Kenwood dealer nearest you, see your Yellow Pages, or write Kenwood, P.O. Box 6213, Carson, CA 90749.





audible distortion on some amplifiers when they are triggered by program peaks). Instead, a comprehensive arrangement of protective sensing circuits operates through the "triac" of the magnetic-field power supply (see "Technical Talk"), shutting off the supply instantly if any improper operation is detected.

There are over-current and over-voltage trip circuits for protecting both the speakers and amplifier circuits against power-supply failures or shorted outputs. A d.c.-fault sensor shuts the amplifier down if a d.c. component appears at its outputs. A clipping detector senses the presence of the high-frequency components generated by sustained clipping; it will tolerate this for a brief period, but if the condition persists the power supply shuts down. A voice-coil temperature integrator monitors the long-term average power output, with frequency weighting to take account of the greater fragility of tweeters, and shuts the amplifier down before speaker damage can occur.

For even more protection, the M-400 has a differential low-frequency trip circuit that monitors the electrical sum of the two channel outputs. The very-low-frequency content of stereo program material is essentially in phase, so the sum of the two channel outputs is very low. However, if the pickup is dropped on the record, or if it is otherwise mishandled, a large vertical (out-of-phase) signal component will be generated, creating an error signal that immediately shuts off the amplifier. Thus, the M-400 can deliver large amounts of in-phase low-frequency power but will shut down during any improper operation that creates a significant amount of low-frequency, out-ofphase signal. According to Carver, this makes it almost impossible to damage a speaker by careless handling of the phono pickup or other signal source when using the M-400.

All of these protective systems operate through the triac to shut the amplifier down immediately. When this happens, the two vertical rows of power-display LEDs on the front panel blink randomly at reduced brightness. After a short period the amplifier returns to operation without any action on the part of the user (assuming that the fault has been corrected). In addition to these electronic protection circuits, the M-400 has both a thermal sensor on its chassis



"... They're getting 360-degree dispersion with that thing? Okay—we'll give 'em 420 degrees!"

(it shuts off all primary power if it becomes too hot) and a 15-ampere line fuse.

Except for its unusual shape and compact dimensions, the Carver M-400 is externally much like any other power amplifier. It has no power switch and can be switched by a preamplifier. (Although its full-power 15ampere rating is beyond the switching ratings of most preamplifiers, it draws very little current under normal conditions or when first turned on and should therefore cause no problems with a good preamplifier.) Recessed into the rear of the M-400 are the four speaker-binding-post terminals, the line-fuse holder, and a small switch that drops the power-supply voltages slightly for mono operation or when driving a 2-ohm load. The front-panel rows of red LEDs that indicate the approximate power output of each channel respond in only 1 millisecond, but they take 0.5 second to decay, making the lights clearly visible on short transients. The bottom lights of each row serve as "power-on" indicators. The M-400 is warranted for three years, including labor, parts, and shipping one way. Price: \$349.

• Laboratory Measurements. Lacking either heat-radiating fins or a fan cooling system, the case of the M-400 heated up almost instantly when we operated it at onethird rated power for the FTC-mandated preconditioning period. Within a couple of minutes it switched off, and it eventually settled down to a cycling rate of about 50 seconds on and 95 seconds off.

We had been warned of this characteristic of the M-400, as well as its propensity for blowing its 15-ampere line fuses when both channels are continuously driven to or slightly beyond the clipping point, especially into load impedances less than 8 ohms. During our test-bench procedure, which took a couple of days, we blew a dozen 15ampere fuses and the amplifier's protective system was activated many times. We mention this not to alarm the prospective user (test conditions are more severe than normal use) but to show how utterly foolproof the M-400 protective system seems to be. Before we had finished with the amplifier, we had deliberately tried to damage it by all the usual means, such as shorted outputs, driving it to hard clipping at high frequencies, and the like, but all it did was turn itself off in time to prevent any damage either (Continued on page 50)



Quadrature Detection

Phase Locked-Loop Stereo Decoder improves stereo separation and reception range of weak FM stereo stations.

provides improved noise immunity when the audio information is separated from the carrier signal.

Keved Automatic Gain

Control provides improved adjacent channel rejection Eliminates the need for a local/distance switch.

Impulse Noise Blanker

protects the FM audio reproduction from interference caused by electrical systems in or near your car.

> Simulated LED readout

Human Engineered Controls make the system easily seen and operated under driving conditions. The built-in microcircuitry eliminates many of the home hi-fi switches that become impractical for auto sound.

Audio Processor Circuit eliminates the need for a

mono/stereo switch by providing gradual channel blending and noise reduction on fringe-strength stations.

Microprocessor-Controlled Frequency Synthesized Tuner locks to a predeter mined frequency standard for drift-free, automatic fine tunina

The Delco-GM ETR™ electronically tuned receiver is a masterpiece of electronic design. A factoryengineered stereo system so advanced, it turns stateof-the-art into a work of art.

Just check these features. Automatic seek. Automatic scan. Digital quartz clock. And an eight-station electronic memory tuner.

And with ETR's sophisticated inner circuitry, the fine tuning and stereo adjustments are handled automatically. You don't have to fiddle with a collection of tiny buttons or extra knobs.

With Delco-GM, you get sound. Not switches. That's because Delco-GM has known for years that there's a lot more to auto sound than just putting home hi-fi on wheels. So don't be misled by false comparisons.

Make your new car's stereo system a masterpiece with a Delco-GM ETR. Or look into the rest of our complete line of sophisticated stereo systems, including CB, cassettes, 8-tracks, equalizer/boosters, and extended range speakers. See your Chevrolet, Pontiac, Buick, Oldsmobile, Cadillac or GMC dealer for model availability.

Delco-GM Sound ... a moving experience.



to itself or to its load. At least once during each of our power-vs.-distortion-vs.-frequency test sequences, the thermal breaker shut off the amplifier, which then required several minutes to return to operation. During prolonged *listening* tests at very high levels the amplifier never shut down or showed any signs of distress.

With both channels driving 8-ohm loads at 1,000 Hz, the outputs clipped at 300 watts per channel, for an IHF clippingheadroom rating of 1.74 dB. With 4- or 2ohm loads, the line fuse blew before we reached the clipping point. Dynamic-power measurements using 20-millisecond tone bursts of a 1,000-Hz sine wave were used to measure the maximum short-term output into loads of different impedance ratings. were similar, except that at frequencies below 1,000 Hz the distortion was typically well under 0.01 per cent. We measured the IHF IM distortion using test signals of 19,000 and 20,000 Hz whose combined peak value was equivalent to that of a fullpower (200-watt) sine-wave signal. The third-order distortion at 18,000 Hz was at -64 dB (0.063 per cent) and the secondorder component at 1,000 Hz was at -86 dB (0.005 per cent).

The manufacturer points out that, although the commutation system of the M-400 does produce "distortion" components harmonically related to the signal frequency, they are in quadrature to the same harmonic frequencies generated in the small linear amplifier within the M-400. It is Car-



Into 8 ohms, the dynamic output was 318 watts (IHF dynamic headroom = 2 dB). Into 4 and 2 ohms the tone-burst signal clipped at 446 and 433 watts per channel, respectively. We also used this test signal for the 8-ohm *mono* mode, obtaining an incredible output of 900 watts at the clipping point!

With both channels driving 8-ohm loads at 1,000 Hz, the harmonic distortion was an almost constant 0.01 per cent from 0.1 watt to 300 watts output. The intermodulation (IM) distortion was also nearly constant, between 0.024 and 0.036 per cent from 0.1 to 300 watts. We tried to make these distortion measurements with 4- and 2-ohm loads, but in each case the line fuse blew before we reached maximum power. Into 4 ohms, the distortion was in the range of 0.016 to 0.021 per cent from 1 to 200 watts. Into 2 ohms, the distortion was close to 0.03 per cent from 1 to 100 watts (the fuse blew before we reached 200 watts, and we decided not to sacrifice fuses ad infinitum in this test, having convinced ourselves that the M-400 could drive almost any load impedance without damage to itself and without significant waveform distortion).

At the rated power output of 200 watts into 8 ohms, the distortion was close to 0.01 per cent from 20 to 1,000 Hz, increasing at higher frequencies to 0.05 per cent in the vicinity of 10,000 Hz and to a maximum of 0.067 per cent at 15,000 Hz. At reduced power outputs the distortion characteristics ver's contention that the high-frequency commutation-noise products, which cannot be separated from the other harmonic products by ordinary measurements, should not be considered as identical to them. This can be debated, but we think the point is moot. The distortion readings we obtained with the M-400 were always far below the threshold of audibility, and if you are concerned about the rising harmonic distortion at high frequencies (typical of most amplifiers), consider that those distortion harmonics are above the range of human hearing anyway. A much more significant measurement is difference-tone IM distortion using two high-frequency input signals. At full power, under the worst conditions, the resulting 1,000-Hz distortion was 0.005 per cent.

The M-400 required 92 millivolts input for a reference output of 1 watt, and its Aweighted noise output was an inaudible 85 dB below 1 watt. The rise time was 4.5 microseconds, and because of the amplifier's built-in band-limiting filters, its IHF slew factor exceeded our measurement limit of 25. The frequency response was perfectly flat in the audio range, down 0.4 dB at 5 Hz and 0.2 dB at 20,000 Hz. It continued quite flat to 50,000 Hz, where it was down 0.8 dB, and dropped sharply to -9 dB at 100 kHz and -14.5 dB at 150 kHz.

The front-panel power indicators provide an interesting display as they follow program peaks, but they cannot be taken seriously as an indication of true output because they are frequency dependent, with a reduced response at high frequencies. At 1,000 Hz it was not possible to light the maximum power lights (supposedly corresponding to 200 watts) and the "-5-dB" lights came on at 149 watts, or -1.3 dB. The -10-, -20-, and -40-dB lights lit at respective levels of -9, -14, and -21 dB referred to 200 watts.

• Comment. Anyone familiar with the requirements for a home-music-system amplifier will appreciate that the Carver M-400 is almost perfectly suited to that application. Its distortion and noise levels are entirely negligible, and its power-output capability is tremendous. It seems to be indestructible, and, unlike most amplifiers with similar potential, it is designed to present a minimum threat to the health of one's speakers even when used carelessly (most powerful amplifiers must be used with considerable respect for their ability to destroy loudspeakers in a moment of incautious enthusiasm).

It became obvious during the time we had the amplifier for test that the Carver M-400 was designed to be listened to and not to be used merely as an exercise in measurement procedures (although it does teach powerful lessons in patience and humility). But even as we listened to it, the M-400 still did not seem quite real. It is hardly conceivable that a small, inexpensive, lightweight cube such as this could deliver as much clean power as any but a few of the largest conventional amplifiers on the market-but it does! Most high-power amplifiers have their Achilles' heels and can be damaged by certain incorrect modes of operation. No doubt the M-400 is no exception to that rule, but if there is a chink in its armor we could not find it.

How does the M-400 sound? Pretty much like any other high-quality amplifier you might name, most of them outweighing it by five or six times and costing two to four times as much. The only objectionable sounds we heard were four low-level "thumps" from the speakers when power was first applied. Also, the amplifier itself can emit some strange groans and buzzes that result from mechanical vibrations of its magnetic field-coil structure, but these were heard only under test conditions, never with program material.

In normal use the Carver M-400 runs quite cool (no warmer than a tuner or cassette deck). If ever there was a "turn on and forget" amplifier, this is it. With the digital-audio age approaching inexorably, any really good music system will soon require an unheard-of reserve of audio power to handle the peak levels that are now compressed to fit the restricted dynamic range of analog recording. Until now, any amplifier suitable for that purpose has been too heavy for one person to lift and too expensive for most people to buy.

Consider, if you will, a pair of mono-connected Carver M-400 amplifiers with a continuous capability of 500 to 600 watts per channel (driving 8-ohm speaker loads) and—even more important—the ability to deliver some 900 watts per channel on brief peaks. All this for a total cost of \$700, a total weight of 18 pounds, and dimensions (Continued on page 52)

Supertuner II. Lightning strikes again.

At last. A new Supertuner with FM reception so advanced, you simply have to hear it to believe it. Because Supertuner II wasn't designed just to sound good on paper or in a lab. It was developed to sound good in the the real world, in moving cars. To sort out stations in the stereo jungles of cities. To pull in stations in the stereo wastelands of the open highway.

features like Auto Reverse with Automatic Tape Slack Canceller, an exclusive.



Plus, of course, a complete range of compatible speakers. All with superb engineering, performance and dependability you'll find throughout Pioneer's complete line. So if you'd like to hear the best audio



To adjust for signal changes anywhere.

So smoothly, you're hardly aware it's happening.

And Supertuner II isn't just the good-sounding car stereo. It's available with advanced cassette in motion, see your Pioneer autosound dealer now. For Supertuner II. The car stereo that's taking the world by storm.

OPIONEER The Best Sound Going. small enough to permit the pair of them to fit in anywhere unobstrusively.

By the way, the M-400 is specifically *not* recommended for commercial disco use, simply because its protective circuits are

likely to become *over*protective in the stressful circumstances of a commercial installation. For home use, however, the amplifier is hard to beat. Without question, the Carver M-400 is one of the most exciting electronic developments to appear on the hifi scene in some time, as well as being an unqualified bargain.

Circle 141 on reader service card



PICKERING'S Model XSV/4000 employs a powerful samarium/cobalt movingmagnet design that minimizes the moving mass of the stylus system without sacrificing output voltage. The diamond stylus of the XSV/4000, described as a "Stereohedron" shape, is a line-contact stylus derived from the Quadrahedral stylus that Pickering developed in the heyday of CD-4 quadraphonic records.

The shape of the Stereohedron stylus permits it to trace the very short recorded wavelengths of the highest audio frequencies while its increased area of groove-wall contact distributes the tracking force over a wider area for minimum stylus and record wear. Like other Pickering cartridges, the XSV/4000 has a removable stylus assembly that includes a hinged "Dustamatic" brush. The brush rides on the record surface slightly ahead of the stylus, sweeping off surface dust that might otherwise gather on the stylus and interfere with its tracking.

Also carried forward from previous Pickering designs is the "V-Guard" feature that safeguards the stylus against many of the hazards of rough or careless handling. The front of the plastic finger grip is notched out in a "V" shape. Excessive vertical force causes the stylus to retract into the guard, and any horizontal scrubbing action against the record will cause the stylus cantilever to ride up the slanting sides of the "V," retracting the jewel tip from contact with the record.

The Dustamatic brush assembly weighs exactly 1 gram, and this additional weight must be allowed for when setting the tonearm tracking force. After the arm is balanced, the first gram of vertical force will bring the brush into contact with the record, with the stylus barely touching the record surface. For a stylus force of 1 gram (the nominal rating of the XSV/4000), the tone arm must be set to 2 grams; half compensates for the brush and the rest appears as a normal tracking force. The antiskating compensation of the tone arm should be set to correspond to the total vertical force (in this case, 2 grams). To the eye, the Pickering XSV/4000 appears identical to the XSV/3000 (the cartridge in which the Stereohedron stylus was first introduced a couple of years ago). Indeed, the two have similar basic designs and construction. A comparison of their specifications shows that the XSV/4000 has a slightly lower maximum tracking force rating (1.25 grams instead of 1.5 grams) and slightly higher coil resistance and inductance (due to its having more turns of wire in the coils). The larger coils are responsible for the slightly higher voltage-output rating of the XSV/4000. Price: \$140.

• Laboratory Measurements. The Pickering XSV/4000 was tested in the tone arm of a Pioneer PL-400 record player. The effective tracking force was set to 1 gram, which is in the middle of the recommended range for the cartridge. The XSV/4000 tracked the low and middle frequencies of our highvelocity test records and played the 100-micrometer level of the German Hi Fi Institute record cleanly and without audible distortion at that force.

The cartridge output was 4.15 millivolts on one channel and 4.2 millivolts on the other, for an unusually close channel balance of 0.1 dB. The vertical stylus angle was 24 degrees. The recommended cartridge load is 47,000 ohms in parallel with 275 picofarads (pF), which we used for most of our measurements. However, we determined that the frequency response of the cartridge was affected only slightly by rather large changes in load capacitance, and almost any capacitance one would be likely to encounter in a home music system should be satisfactory.

The frequency response of the XSV/ 4000 dropped slightly (about 2 dB) between 1,000 and 6,000 Hz, remained flat from there to 9,000 Hz, and had returned to the midrange level by the time the frequency reached 20,000 Hz (the upper limit of the CBS STR 100 test record we used). A slightly flatter curve, with a similar shape, was obtained with a JVC TRS 1007 record. The crosstalk response of the cartridge was relatively uniform, showing a channel separation of 25 to 30 dB over most of the audio range. The resonance of the stylus system in the fairly massive (22-gram) arm of the Pioneer record player occurred at 8 Hz, where the output rose by 10 dB. The narrow resonance peak indicates little damping in either the cartridge or the arm pivots at that frequency.

The intermodulation distortion measured with the Shure TTR-102 test record was very low at all levels on the record (the 0.8 per cent we measured at a 7-cm/sec velocity was probably the residual distortion of the record). It increased smoothly to 2.5 per cent at 22 cm/sec and 5 per cent at 27 cm/ sec. The cartridge did not mistrack detectably even at the highest level on the record. The high-frequency tracking distortion measured with the Shure TTR-103 record's tone bursts was very low at 15 cm/sec, but it was much larger than usual at the record's 30-cm/sec maximum level. Like most distortion measurements on cartridges, the correlation between this and the listening quality is very difficult to establish. The distortion readings were not reduced when we increased the tracking force to the 1.25-gram rated maximum.

The playback of the 1,000-Hz square waves of the CBS STR 112 record showed that the high-frequency stylus resonance was well damped (which could also be inferred from the amplitude and bandwidth of the rise in output at the 18,000-Hz resonance frequency). There was a barely visible single overshoot and a slightly sloping upper leading edge on the waveform that was probably associated with the rapidly falling output above 20,000 Hz.

The subjective listening tests with the "Audio Obstacle Course" records were consistent with the other tracking tests. There was no sign of strain or other evidence of mistracking on *any* of the sections of the ERA III and ERA IV records, even at their maximum levels, with the 1-gram tracking force. This represents extraordinary tracking ability, matched by only a couple of other cartridges in our experience.

• Comment. According to Pickering, the XSV/4000 differs from the original Stereohedron cartridge (XSV/3000) principally in the reduction of effective tip mass, and this improves its high-frequency tracking ability. This does not show up as a significant difference in the cartridge's measured frequency response or crosstalk characteristics, although we measured about 2 dB more output from the XSV/4000 than we had from the XSV/3000.

The earlier cartridge was a very good "tracker" as well, but in that respect the XSV/4000 is one of the champions. Its (Continued on page 54)

THE REALIZATION OF GREAT EXPECTATIONS.

THE SANSUL "Z" SERIES.

Music lovers expect uncommon products from Sansui, And Sansui delivers. The Sansui "Z" Series of synthesized digital receivers are designed and built with a loving logic that can be seen, touched and heard. Take the Sansui 5900Z. a reasonably priced receiver with every important feature you could possibly want for the heart of your high fidelity system.

SYNTHESIZED DIGITAL TUNING

You can't mistune a Sansui synthesized digital receiver. Not even a little. Press the up/ down tuning buttons. The claital circuitry ensures that every station received is automatically locked in for lowest possible distortion, with its freguency indicated both or a digital readout and by an LED indicator along cn analog type dial.

TOUCH VOLUME CONTROL & LED PEAK POWER LEVEL INDICATOR The Sansui 5900Z

PRESET STATION

uses a pair of touchbuttons to adjust the listening level. Relative volume control setting is indicated on a fluorescent display. Actual peak power amplifier output is shown by 14segment LED indicators.

12 PRESET STATIONS To make FM and AM tuning still easier, up

Visit your Sansui dealer and make sure you VOLUME AUTO TUNING DOWN LIP DOWN 32 96 DA 104 108 94 98 102 106 BAG man 1200 MIN

to 12 user-selected stations may be "stored" in the 5900Z's memory circuits for instant recall. The last station received will be remembered when the tuner is turned on again; and memories are kept "live" even during a power outage.

DC-SERVO AMP FOR DEPENDABLE POWER

The leader in DC technology, Sansui uses a servo-controlled amplifier circuit in all "Z" receivers to eliminate unwanted ultra-low frequencies like record warps - while maintaining the advantages of direct-coupled circuity in their amplifier sections. The 5900Z delivers 7.5 wats/channel, min. RMS, both channels in o 8 ohms, from 20-20,000Hz, with no more than 0.03% THD.

And there's more. Like LED's for every important function. Two Muting Modes. Two tape deck connection with dubbing. Ard much more.

MEMORY

see all the wonderful stereo receivers in the Sansui "I" Series. Anc

expect great things. You won't be disappointed.

Sansui

SANSUL ELECTRONICS CORP.

Undrust, New Jersey 07071 Gardana, Ca. 90247 SANSUI ELECTRIC CO., LTD., Tokyo, Japan SANSUI AUGO EUROPE S.A., Ardwerp, Belgium in Canada Electronic Distributors





In the graph at left, the upper curve represents the smoothed, averaged frequency response of the cartridge's right and left channels; the distance (calibrated in decibels) between it and the lower curve represents the separation between the two channels. The inset oscilloscope photo shows the cartridge's response to a recorded 1,000-Hz square wave (see text), which indicates resonances and overall frequency response. At right is the cartridge's response to the intermodulation-distortion (IM) and 10.8-kHz tone-burst test bands of the TTR-102 and TTR-103 test records. These

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

qualities of relatively flat frequency response across the full audio range, excellent channel separation at all frequencies, high output, superb tracking ability at (effectively) a 1-gram force, and an exceptional immunity to the effects of load-capacitance changes add up to making the XSV/4000 a topflight performer. It also happens to sound as good as it measures, and we could not fault it in any way.

Circle 142 on reader service card



THE Technics RS-M24 is a front-loading, two-head cassette deck that employs a single-capstan, single-d.c.-motor drive system. The record/playback head is made of "MX" permalloy, which is capable of accepting the very high bias current required by metal-alloy tape. The transport controls, though mechanical, utilize soft-touch pushbuttons that provide much of the feel and flexibility normally associated with solenoid-operated controls.

Cassettes are inserted, tape openings downward, into slides behind the transparent cassette-well door. The cassette well is not illuminated, but label and tape visibility is adequate with normal ambient light levels. The lid of the well may easily be removed, affording access to the heads and pinch roller for routine cleaning.

The FAST FORWARD and REWIND buttons are used in the RS-M24 not only for their

normal functions but, in conjunction with the PLAY button, to provide facilities through which the tape can be heard during high-speed winding; they will revert immediately to the play mode when the fast-wind button is released. The RECORD-button setup is unusual in that it is used alone (not simultaneously with PLAY) to put the RS-M24 into record mode. Since the RECORD and PLAY pushbuttons are interlocked, however, it is not possible to go directly from play into record. While the deck has no memory-rewind/play feature, it can be set to rewind a tape to its beginning and then replay it automatically. Activation of either the record or play modes by an external timer switch is also possible, and the PAUSE and RECORD MUTE pushbutton functions can be operated, if desired, by an optional remote-control accessory. Only the RECORD button has a status-indicator light.

Record and playback levels register on a pair of eighteen-segment peak-reading fluorescent displays calibrated from -20 to +8 dB. The highest reading is held for approximately 2 seconds to make setting the record level easier. The Dolby-calibration mark falls at +3 dB. Large concentric knobs are used to control the recording level, and a single smaller knob adjusts the output level both at the rear jacks and at the front-panel headphone jack.

Four pushbuttons set the bias and equalization of the RS-M24 for metal, CrO2type, ferrichrome, or ferric formulations, and similar buttons are used to turn the Dolby noise reduction on and off and to select between microphone and line-level record inputs. No mixing facilities are provided, but there is a pushbutton-operated RECORD MUTE function. The rear panel of the RS-M24 contains the customary phonojack connectors for line-level inputs and outputs, plus a DIN-type socket for the \$15 remote-control accessory. Overall, the RS-M24 measures approximately 17 x 45% x 101/4 inches (width, height, depth) and weighs about 11 pounds. Price: \$250.

• Laboratory Measurements. Our sample of the RS-M24 was supplied with the tapes used to make its factory adjustment. These were: Maxell UD XL-I (ferric), Sony Duad (ferrichrome), Technics RT-60XA (CrO_2 type), and Technics RT-60XX (metal). Since the two Technics tapes are not widely marketed, we used the nearest generally available equivalents: TDK SA for the CrO_2 -type and TDK MA for the metal-alloy tape. (Continued on page 56)

54

Here's how to make a standard \$5 tape outperform a \$10 metal tape.



The hk400XM with frequency response from 15-20kHz \pm 3dB.

Record a standard \$5 tape on one of the new Harman Kardon High Technology cassette decks with Dolby HX*. And a \$10 metal tape on a conventional deck. Any conventional deck.

Now compare.

The Harman Kardon deck with Dolby HX will give you substantially better performance from the standard tape. More dynamic headroom. And better signal-to-noise ratio.

Yet the recording made on our Harman Kardon High Technology deck costs about half as much. Which can save you a small fortune if you plan a tape library of any size.

Of course our new High Technology decks are metal capable, too. So you can use Dolby HX *and* metal tape for performance that can't be topped by anything less than a professional quality open reel deck.

But Dolby HX is only part of the performance story.

Our heads cost more. And they deliver more.

The heads used in a cassette deck probably dictate the performance you'll get more than any other single component. That's why at Harman Kardon, we spent a lot more time and money on our head designs and materials. We started with Super Sendust Alloy, the costliest and most advanced

material available. In manufacturing, we machine our head gaps to incredibly precise tolerances, and align them with equal care. Obviously, this process takes more time and costs more money. But it results in frequency response unheard of in a single speed cassette deck at any price.

Even our most economical deck, for instance, gives you ruler-flat frequency response from 15 Hz to an incredible 19,000 Hz from a conventional tape. You also get features like Dolby NR, a front panel bias fine trim, MPX filter and memory.

As you move on up the line, the specs just get better. And so do the features. Like the world's first headroom safety indicator to prevent tape saturation far more accurately than any peak level indicators. You'll also find built-in Dolby and bias test tones. Normal and slow meter ballistics. A fader control. Plus our exclusive Auto Program Search System that scans a tape automatically, sampling the beginning of each cut until you've located the one you want.

Yet the new Harman Kardon High

Technology cassette decks do share one thing in common with the conventional decks.

A conventional price tag.

So before you settle for a deck that will set you back \$10 or more every time you want a quality recording, audition the new Harman Kardon Decks with Dolby HX.

You'll get performance that beats metal. At about half the price.

*Dolby and the double-D symbol are trademarks of Dolby Laboratories. Dolby HX is a standard feature on all Harman Kardon High Technology decks except the 100M.



The hk100M with frequency response from 15-19kHz \pm 3dB.



The hk200XM with frequency response from 15-19kHz \pm 3dB.



The hk300XM with frequency response from 15-20kHz \pm 3dB.



240 Crossways Park West, Woodbury, NY 11797 Toll free: 1-800-528-6050 ext. 870 CIRCLE NO. 23 ON READER SERVICE CARD Playback frequency response was checked using Teac MTT-216 ($120-\mu$ sec, ferric) and MTT-316 ($70-\mu$ sec, CrO₂/metal/ferrichrome) test tapes. Response was within ± 2 dB from the tapes' lower limit of 31.5 Hz up to the very highest tones, where it fell off slightly, being down 2.5 and 4 dB at 14,000 Hz in the 120- and 70- μ sec positions. Since this high-end loss was not reflected in the overall record-playback response curves, we are inclined to believe it results from a difference in the azimuth alignment between our test tapes and those used by Technics.

Overall record-playback frequency response, measured at 20 dB below the 0-dB indication on the fluorescent display, showed the -3-dB points at 15.5 kHz (ferric), 17 kHz (CrO₂ and ferrichrome), and 18 kHz (metal). At the low-frequency end, response began to fall off gradually below approximately 50 Hz, being down by 3 dB at approximately 40 Hz but within ± 3 dB down to 20 Hz. The metal tape had a 3-dB peak at 16.5 kHz, just before its upper limit, suggesting a slight under-bias condition. The 0-dB curves, however, show the very dramatic advantage of metal tape in high-frequency overload capability.

Third-harmonic distortion of a 1,000-Hz tone at the indicated 0-dB record level measured 0.8, 0.7, 1.2, and 0.6 per cent for the metal, CrO₂-type, ferrichrome, and ferric tape formulations, respectively. To reach the 3 per cent distortion level used to check signal-to-noise ratio required increasing the input signal by 7, 6.5, 5, and 9 dB for the four tape types, verifying the suggestion in the owner's manual that peak readings in the range of +3 to +6 dB are the most suitable for most recordings. On an unweighted basis, without Dolby-B noise reduction, the respective signal-to-noise ratios for the metal, CrO₂-type, ferrichrome, and ferric tapes measured 54.2, 54.2, 55.2, and 53.6 dB. With the Dolby system and CCIR



weighting, these figures improved to 65.6, 66, 67.4, and 66 dB. Wow and flutter, checked with a Teac MTT-150A test tape, was 0.05 and 0.075 per cent on a weightedrms and DIN-B peak-weighted basis.

A 1,000-Hz line-level input of 60 millivolts (0.06 volt) produced a 0-dB indication and an output level of 0.675 volt. The corresponding microphone-input sensitivity was 0.19 millivolt, with overload occurring at 18 mV. Headphone volume was more than adequate for either nominal 8-ohm or 600ohm headphones. Fast-forward and rewind times were both 90 seconds for a C-60 cassette.

Dolby-level calibration fell precisely at the indicated (+3 dB) point on the fluorescent indicator, as measured with a TDK AC-313 test tape; the indicator had a fast attack, with the highest peak level held for approximately two seconds as specified. Dolby tracking accuracy was within 1 dB at -20- and -30-dB recording levels up to 14 kHz, above which responses fell off very sharply as a result of a built-in stereo-FM multiplex filter that is automatically inserted in the signal path when the Dolby circuitry is active.

• Comment. As its modest price suggests, the RS-M24 is not designed to compete directly with the most sophisticated decks on the market, but within its intended arena it proved to be an excellent performer. When demonstration-quality prerecorded cassettes were played through a wide-range speaker system there was a slight dulling of the highest frequencies, which was also perceptible when we made copies of the most demanding discs and master tapes. On the other hand, for most tape, disc, and FM dubbing the loss in the copy was insignificant if the recording level was kept at the levels suggested in the owner's manual. The transport controls were a joy to use, infinitely superior to the customary "piano-key" mechanical levers. For readers seeking a quality cassette deck at a moderate price, the Technics RS-M24 is certainly worth serious consideration.

Circle 143 on reader service card



THE Yamaha P-750 is an automatic single-play record player featuring a quartz-locked direct-drive motor and a straight tone arm designed to resonate at a near-ideal frequency with the majority of cartridges likely to be used in it. The turntable portion of the P-750 is a 12-inch castaluminum-alloy platter with a heavy ribbed rubber mat (the two have a combined weight of 3.5 pounds). It is driven by a brushless, coreless d.c. direct-drive motor that uses Hall-effect elements to sense its rotation and supply the switching signals (in lieu of a commutator) to the driving amplifier. A frequency generator on the motor supplies a feedback signal proportional to speed, and its phase is compared with a crystal-controlled reference signal. The error-signal output of the PLL servo system supplies the control signal to the amplifier that drives the motor. A switchable reference voltage summed with the frequencycontrol error signal selects the operating speed of either 331/3 or 45 rpm.

Yahama calls the tone arm an "optimum-mass" design. It is a straight aluminum-alloy tube reinforced by a concentric sleeve near the pivot to minimize flexing. It is counterbalanced by a large, massive rectangular weight that slides on two guide rods and is moved by a knurled thumbscrew. The effective mass of a tone arm is a (Continued on page 58)



Let Onkyo transport you to a world beyond electronics . . . to a world of more perfect sound. Where you'll hear music of such stunning purity and sensual richness, that you'll forget you're listening to an audio system.

That's the secret of Onkyo ... and Onkyo's dramatic success. The unique ability to take you several steps beyond pure technology ... to experience more exciting sound. And you'll find it in all our components ... including all four of our new stereo tape decks.

The Onkyo TA-2050 is an outstanding example. It goes further than other tape decks ... to harness the full performance potential of new metal tapes. One reason is Onkyo's exclusive "Accu-Bias" control system, which guides you to far more precise tape bias adjustments. Brighter, cleaner high notes are the reward.

The Onkyo TA-2050 also utilizes a full logic direct drive motor transport for extremely high reliabilwith all types of tape ... both metal and conventional.

The Onkyo TA-2050 also provides a rich and important array of other high performance features ... soft touch controls with IC logic ... a Dolby* noise reduction system with switchable MPX filter ... large, illuminated "peak-hold" meters for greater precision and convenience ... a memory-stop/memory-play system ... a timer mode selector ... and full remote control capability when used with the optional RC-5 remote control unit.

Two valuable features of the TA-2050 are its instant muting and automatic fade in/fade out control systems . . . which permit far more professional recording effects. Musical passages can be "cut-in" or "cut-out" instantly . . . or "faded-in" or "faded-out" smoothly. And cassettes can be recorded right to the end . . . then rewound a short bit to overlay a professional "fade-out" effect.

Styling is superb. Brushed silver metal with elegant appointments . . . in a dramatically handsome

ity with minimum wow and flutter. A second motor handles fast forward and rewind functions. A special Hard-Permalloy record/playback head ... and a ferrite erase head ... provide optimum performance



new slim-line design. And the TA-2050 is just one of four important new metal tape-compatible stereo cassette tape decks from Onkyo. Onkyo USA Corporation 42-07 20th Avenue Long Island City, N.Y. 11105, (212) 728-4639

*TM of Dolby Laboratories

The Onkyo TA-2050 A remarkably advanced stereo cassette deck that harnesses the full potential of new metal tapes. function of the distribution of its actual mass around the pivot axis; a large counterweight near the pivot results in a lower effective mass than would a smaller weight extending further behind the arm. Cartridges weighing from 2.5 to 10 grams can be balanced. The tracking force is supplied by a secondary weight that slides along the arm tube, reading against a scale calibrated from 0 to 3 grams at 0.1-gram intervals.

The head shell (two of which are supplied with the P-750) is molded of a mixture of resin and carbon fiber and plugs into the end of the tone arm, where it is retained by a knurled locking screw. It is not like the usual universal plug-in shell. The cartridge, which mounts at an angle to the arm tube, can be moved in its mounting slots to set the manual mode as well, since lifting the arm from its rest starts the motor). At the end of play the arm lifts and returns to its rest automatically, shutting off the motor. Near the center of the control section is a REPEAT button which causes a record to be replayed indefinitely when it is engaged. To its right is a rectangular button that slides horizontally to operate the cueing mechanism. At its left limit the arm is in playing position, and moving it to the right raises the pickup smoothly.

A small red LED (LOCK) directly in front of the platter lights when the phase-lockedloop control circuit reaches its "locked" condition, signifying that the platter is turning at the selected speed. There is no vernier speed control. A button at the left of the



correct overhang. Instead of using nuts on its cartridge-mounting screws, the Yamaha shell has a small aluminum bar that is tapped to receive the screws and also serves to stiffen the head shell. When installed correctly, the cartridge stylus is directly on the axis of the arm tube.

Next to the arm base is a flush-mounted antiskating adjustment dial, and on the other side of the arm is a lever marked FREE and LOCK. In its FREE position the entire tone arm can be moved up and down over a limited distance to set the arm parallel to the record with cartridges of differing heights. Once set, this adjustment is retained by moving the lever to LOCK. In use, the arm is raised and lowered under damped control by a curved cueing bar underneath it.

The Yamaha P-750 is finished entirely in silver grey. Its removable hinged plastic cover remains open at an angle or can be removed entirely. Except for the arm-height and antiskating adjustments, and the two pushbuttons that set the automatic arm indexing diameter to either 17 or 30 cm (7 or 12 inches), all the controls are rectangular pushbuttons along the top front of the base, where they are accessible with the cover lowered.

The P-750 is put into operation by pressing the PLAY button at the right of the base; this turns the motor on and causes the arm to index to the selected diameter and descend to the record. Playing can be interrupted at any time by pressing the CUT button next to PLAY or by returning the arm manually to its rest (it can be started in the unit selects the operating speed. The base of the Yamaha P-750 is made of die-cast aluminum and is supported on soft rubber mounting feet.

Yamaha's justification for an "optimummass" rather than a "minimum-mass" tone arm is logical and conforms to the realities of record-player operation. It is generally agreed that an optimum cartridge/tonearm resonance frequency, safely above the most common disc warp frequencies but below the lowest audio frequencies, is about 10 to 12 Hz. Yamaha has aimed at a 12-Hz resonance in the design of the P-750 arm, which has a net effective mass of 11 grams. They have found that most good cartridges will resonate between 10 and 14 Hz in this arm. The Yamaha P-750 measures 173/8 inches wide, 145/8 inches deep, and 51/8 inches high. It weighs 171/2 pounds. Price: \$260.

• Laboratory Measurements. A Shure V15 Type III cartridge was installed in the tone arm of the Yamaha P-750 for our tests. The installation was straightforward, making use of the plastic gauge supplied for setting the stylus position. However, there is very little clearance between the cartridge connectors and the plug portion of the sheil, and it is possible that some cartridges, longer or wider than most, might not fit.

The capacitance to ground of the signal cables and arm wiring was 112 picofarads per channel, with an interchannel capacitance of 2.5 picofarads. After the arm had been balanced according to instructions, the calibration of the tracking-force scale was accurate within 0.05 gram up to 2 grams and within 0.1 gram at a 3-gram setting. The tracking error of the arm was exceptionally low, with a maximum of 0.33 degree per inch at a 3-inch radius and less than 0.25 degree per inch over most of the record area.

The net arm mass (excluding cartridge) was 11 grams, exactly as rated. The very compliant Shure cartridge resonated at 10 Hz with a 5-dB amplitude, as close to an ideal condition as one could wish for. Most cartridges, being less compliant than the V15 Type III, could be expected to resonate at a slightly higher frequency.

The turntable required 13 seconds to begin playing in the automatic mode after the PLAY button was pressed. After CUT was pressed, some 9 to 11 seconds were required for the arm to return to its rest and shut off the motor. With the motor running, speed could be shifted upward (from 33¹/₃ to 45 rpm) in only 0.75 second, but a change in the reverse direction required about 7.5 seconds because of the apparent lack of a braking current or other decelerating aid. The operating speeds were exact and were not affected by extreme line-voltage changes.

Flutter was 0.06 per cent (JIS, or weighted rms) and ± 0.08 per cent (DIN, or weighted peak), with the flutter spectrum distributed randomly below 10 Hz. The unweighted rumble was a low -37 dB, improving to -63 dB with ARLL weighting. It consisted mostly of components in the 6- to 12-Hz range. The antiskating compensation was approximately correct when it was set to agree with the tracking force (or perhaps 0.5 gram higher). There was a slight outward shift of the tone arm during the cueing descent, amounting to about 2 seconds or less of repeated program each time the arm was raised and lowered. This shift was not the result of the antiskating torque and may have been due to a slight misalignment of the lift bar relative to the arm tube.

The isolation of the player against baseconducted vibration, despite its soft rubber feet, was no better than average for a direct-drive turntable. There were transmission modes at 30, 100, 150, and 240 Hz when we excited the mounting feet with magnetic vibrators.

• Comment. In general, the Yamaha P-750 proved to be a fine record player whose arm had nearly ideal characteristics (optimum mass, non-ambiguous balancing, accurate tracking-force calibration, and accurate antiskating compensation being a few of them). However, we were disappointed to find that it lacks an arm lock on its rest post or elsewhere. There is therefore a danger of the arm's sliding off its post and turning on the motor, which could result in stylus damage from contact with the rotating turntable mat. We recommend keeping the cueing lift in its up position at all times when a record is not actually being played. Barring this criticism (which might not be as important to someone else as it is to us), the Yamaha P-750 impressed us as a thoroughly excellent record player. One could hardly expect any better performance, either subjective or measured, from a record player of conventional design.

Circle 144 on reader service card

THE KLIPSCH HERESY: The biggest sound in a small speaker is two-thirds Klipschorm[®] at less than half the price.

In 1957 Paul Klipsch designed a small loudspeaker that utilized the same tweeter and mid-range driver as the legendary KLIPS-JHORN. He added a 12" woofer and maximized the cabinet volume for exceptional bass response. Until that time, Klipsch had built only corner speakers and the new design was for "against the wall" placement. When he described this accomplishment to a sales representative, the man said it was "heresy" to put so much KLIPSCHORN in such a small speaker that didn't even require a corner.

> Because of its high efficiency, the KLIPSCH HERESY simply doesn't require expensive, highpowered amplifiers to reproduce the full bandwidth of dynamic sound. This helps your afford a better cartridge, turntable or tape deck.

For tonal detail, definition, imaging, transient response and durability, the KLIPSOH HERESY has no equal in its size. It will put you front row center, feeling the thunder of the bass, the impact of the drums, and the exhilaration of each crescendo.



This lowest priced KLIPSCH HERESY comes in unfinished birch plywood for exceptional durability, so if you want great sound without the furniture finish,

KLIPSCH HERESY one of the most efficient small speakers in the world.

Only one watt of power

will deliver 96 dB of sound pressure four feet into your room and it can take 100 watts if your ears can. Response range

is from 50 to 17,000 Hz

this is the one for you.

plus or minus 5 dB.

The KLIPSCH HERESY cabinet is shown here in beautiful, hand-finished walnut. Built to the highest quality construction standards in the industry, you can also choose oak, teak, resewood, zebra wood, ebony and other exotic wood veneers.

> The KLIPSCH HERESY is a sound investment because, unlike every other aspect of today's component hi-fi systems, it will not be obsolete ten years from now:



Zip

SR

Please send me free information on the KLIPSCH HERESY and the entire line of Klipsch loudspeakers. Send me the name of the nearest dealer too. Name

Address

City

State

Mail to: Klipsch and Associates, Inc.

Box 688 Hope, Arkansas USA 71801 Or Call: 501-777-6751



KLIPSCHORN, BELLE KLIPSCH, KLIPSCH LASCALA, KLIPSCH CORNWALL and KLIPSCH HERESY are registered trademarks of Klipsch & Associates Inc. "A Legend in Sound" is a trademark of Klipsch & Associates, Inc. Copyright 1980 Klipsch & Associates, Inc. All rights reserved. CIRCLE, NO. 30 ON READER SERVICE CARD



OUTDOOR ANTENNAS

Improve your TV picture with a new Winegard antenna. Patented design assures more signal ... you get rid of ghosts, snow, weak color. Anodized, rugged, gives you strong, clear reception on all channels.

FM STEREO ANTENNA



na with solid-state

amplifier reduces or eliminates multipath distortion, strengthens weak, fading stations an average of 5.6 times. Sits on or near FM tuner. Model FM-4400.



INDOOR TV-FM ANTENNA

Improves both TV pictures and FM sound. Perfect for apartments,dorms,homes. Goes up fast, easy. Complete package, including wire and plant hanger hooks. Model AT-5001.



AUTO FM STEREO SIGNAL BOOSTER Extends range of auto FM stereo for

more stations. Amplifies signals an average of 8 times.

Reduces fading. Fits under dash, with only switch visible. Model BF-8809.

> Winegard: your assurance of quality and performance.

Write for the name of your Winegard Dealer.



The Pop Beat

By Chris Albertson



BENIGN PIRACY

N perusing your favorite newspaper lately, you may have come across a story of an FBI raid on a record and tape bootlegging operation. In fact, there is a good chance that one or more bootlegged items are-unbeknownst to you-in your own collection, counterfeit merchandise so expertly copied that even the record companies have found it difficult to discern whether it is their own product or not.

It is, of course, a matter of semantics, but in regard to recordings the term "bootleg" usually applies more to counterfeiting than to the unauthorized use of material. A counterfeiter will concentrate on current hit items, duplicate them in toto, and represent them as the original product; the profit margin is wide, for he pays neither production costs nor royalties, and all advertising is handled by the victimized label. A "pirate," on the other hand, simply releases someone else's recorded material on his own label-or with no label at all. Rock concerts and complete opera performances have been covertly recorded from the audience or off the air and sold to connoisseurs in unmarked albums, but the most common pirate records are those assembled by people we used to call "moldy figs," dyed-in-thewool collectors of vintage jazz whose "piratical" efforts are often motivated simply by a desire to make available performances that might otherwise remain forever secreted in some record company's vaults. Though such releases usually make some profit, the return one can expect from sales of, say, "Louisville Lou" by Ladd's Black Aces (to take an actual example) won't soon buy a house in Malibu. I don't condone the practice, but were it not for the so-called "pirate labels," a thick slice of American music would be known today only to a handful of collectors lucky enough to get their hands on the now-rare original 78s.

Limited space precludes my delving here into the ethics involved, but when a company keeps an artist's work off the market by neither issuing it nor allowing anyone else to do so, that work is, in fact, being suppressed. Record companies ought to be obliged, as a matter of artistic and cultural conscience, to make all recorded material available, if not in their own catalogs, then

at least-through licensing-in those of other interested companies. Such an arrangement would be welcomed by many small labels now operating more or less covertly, and there is at least one precedent: Biograph, the legitimate offspring of Historical (a pirate label), made a unique arrangement with Columbia to issue some of the big company's closeted treasures a few years back. Regrettably, the licensing fee proved to be unrealistically high for the long run, so the deal died after the release of only a handful of albums. But it was a step in the right direction, and Biograph has since blossomed on its own through leasing or buying masters from other, smaller companies. That pirate jazz labels want to go straight is evidenced by the fact that several of them have channeled their shadily acquired profits into legitimate ventures.

NE such company is Stash, a label that until recently was best known for its thematic albums of "borrowed" vintage jazz ("Reefer Songs," "AC-DC Blues," etc.) but now boasts seven releases (with two more in the can) of its very own studio sessions featuring such established jazz names as Slam Stewart, Grady Tate, Jon Faddis, Hank Jones, and Milt Hinton. The most recent Stash release features nobody you are likely to recognize unless you already have the Widespread Depression Orchestra's first Stash album, "Downtown Uproar" (ST-203). But if you like moderately large bands playing in a style that would not have seemed odd or out of place at Roseland some forty years ago, the WDO's "Boogie in the Barnyard" (ST-206), a collection of fairly obscure Swing Era tunes, ought to cheer you up. Many bands like the WDO would remain unrecorded were it not for such small labels as Aviva, Biograph, Stash, and Blue Goose, all of which are pirates gone legit.

There isn't much money to be made from pirating old jazz material, but if the big labels feel uncomfortable about having their past efforts put back on the market by unlicensed vendors, they can do one of two things to regularize the practice: lease the recordings to others or rerelease them themselves.

Beauty...Without the Beast



The finest reproduction of sound... matched with the advanced technical design, reliability and aesthetics that make NIKKO AUDIO the stereo components you cannot afford to overlook.

Even more so when you consider their extraordinary value for your money.

Shown here: The Gamma 20 frequencysynthesized digital tuner with 6-station programmable memory, Beta 20 preamplifier with performance, construction and many features of far more costly units, EQ-1 graphic

equalizer, ND-790 NIKKO AUDIO metal cassette deck (with optional rack-mounts), Alpha 220 DC servo nonswitching power amplifier.

Experience these and other quality NIKKO AUDIO components at your authorized dealer—all except cassette decks backed by a transferable 3-year parts & labor limited warranty. © 1980 Nikko Electric Corp. of America, 320 Oser Ave., Hauppauge, N.Y. 11787 CIRCLE NO. 39 ON READER SERVICE CARD "When the lights were turned out we could almost have swom that we were in the presence of a real live orchestra."

Hal Podgers, Popular Electronics

"The effect sta ns crecibility had I not experienced it I probably would not believe it.. the imiracle' is that it uses only the two normal trant speakers." Julion Hirsch, Hitsch-Houck Lobs.

". It brings the Istener substantially closer to that elusive sonic illusion of being in the presence of a live performance." Larry Klein, Stered Esview.

"seems to open a curain and reveal a decloyment of musical forces extending behind, between and beyond the speakers. terrific." High Fidelity.



They're all raving about Sonic Holography.*

Sonic Holography is only the most spectacular achievement of the Carver C-4000. The others are merely extraordinary.

Consider what you actually have in the C-4000:

- A full function stereo preamplifier
- A time-delay system with controllable reverberation mix
- A built-in 50 watt (total) power amplifier for time delay speakers
- The Autocorrelator system that reduces noise up to 8 dB with any source material
- A peak unlimiter/downward expander that nearly doubles dynamic range
- And the Sonic Halogram system that aroused the quotes above.

Please write for the complete test reports, brochures and list of authorized Carver deglers.

Then you can rave all you want about your own C-4000.



PO Box 664, Woodinville, Washington 98072 CIRCLE NO. 11 ON READER SERVICE CARD

Going on Record

By James Goodfriend



MUSIC AND THE GOOD LIFE

W E got a three-page letter recently (and I do mean we; copies were sent to everyone from the chairman of the board on down) lambasting us for our less than favorable criticism of the new music of Kris Kristofferson, Bob Dylan, and Grace Slick. For those of you who have been too busy with other things to notice, Kristofferson and Slick have apparently put their sinful days behind them and found sobriety, and Dylan has found God (or maybe the other way around, if you look at his last album cover). The three have been exhibiting their new righteousness in their music as well as on television talk shows and in other nonmusical arenas. None of us at STEREO REVIEW has any quarrel with what they say, but when they compose and when they sing their efforts have to be weighed in the balance just as before, when they were, as our letter-writer puts it, "stoned and trippedout, lost persons." We have found them recently, though de-stoned, somewhat wanting artistically.

I should point out to the writer of the letter (who seems to have the opposite impression), as well as to other readers, that none of us at STEREO REVIEW exactly endorses a life of sin and shame. Although liquor and grass are not totally beyond our ken, a year's supply for the entire staff would probably leave your average rock band cold turkey in a week. But we have noticed over the course of a few centuries (we include here in our own experience the reports of our predecessors) that the sort of dissatisfaction with life that often expresses itself through drugs, alcohol, and a straying from Judaeo-Christian ideals (Buddhist, Muslim, and others too) often goes strongly hand in hand with artistic creativity and accomplishment.

To put it the other way around, the person who has found himself, who is at peace with himself, who can accept with equanimity and even with joy his ultimate fate and all the slings and arrows along the way, is not likely to be artistically creative. Sigmund Freud said something about artists writing or composing or painting their way to normalcy (meaning they started fairly far afield), and he might have added (I don't remember if he did or not) that they never get there. Not while they're creating, they don't. So when Dylan, and Slick, and Kristofferson found inner peace (I am assuming that they did), something went out of their music: tension.

When you take tension out of music, what you have left is a nice warm bath. And when you add self-righteousness and proselytism to the lyrics, what you have is a very *sticky* warm bath that can be textually irritating at the same time that it is musically bland. Whatever feelings one may have for the person, the life, the real suffering, Ethel Waters was a far less interesting and affecting singer when she became but one more testimonial for the Billy Graham crusade than she was during the struggles of her life. Slick, Kristofferson, and Dylan promise to be the same.

HERE is another way to look at it. These three have what, in the long view of things, must be considered to be modest talents. For all their present or past popularity, it isn't unfair to say that they will be long forgotten when Mozart is still current. Their talent is for a certain kind of music, a certain limited view of the world. When they step beyond that, they outstep their talents. You have to have more than the talent of a Bob Dylan to be both Bob Dylan and Mahalia Jackson in the same lifetime. It's harder, by the way, to be a Mahalia Jackson than to be a Bob Dylan, and that is why we have fewer Mahalia Jacksons. Given life as we know it and read about it in the newspapers, it's a lot easier-and maybe more to the point for most of us-to sing accurately and affectingly about hell on earth than about heaven.

Mozart, Beethoven, Schubert may very well have traded—however unconsciously—happy lives for the privilege of writing masterpieces. And their talents were extraordinary. Possibly there have been some who have made the trade the other way. We can never know. It's too much to expect someone of lesser abilities to give us not just the music of the damned but the music of the saved too. It's certainly too much to ask a critic to pretend that these artists *can* simply on the grounds that their moral transformations are admirable.

Making an accurate and faithful recording on most cassette decks requires a lot of practice, a lot of patience and a lot of jumping up and down. After all, with conventional decks, you have to adjust the recording levels as the music varies. But not with Technics RS-M51.

The first thing the RS- $M5^{\circ}$ does is select the proper bias and EQ-levels for norma , CrO_2 or the new metal tapes, automatically. That makes life easy.

So does our Autorec[®] sersor. Just push a button and Wait seven seconds while the IRS-M51 seeks the proper recording level. 16 red LED's tell you the deck is in the "search" mode. When the green LED lights up, you're ready to go. For manual control of the recording level, there's also a fine-adjust switch which raises or lowers levels in precise 2 dB steps. While the RS-M51's two-color peak-hold FL meters show you the signal being recorded.

With the RS-M51's record/playback and sendust/ferrite erase heads, you'll not only hear superb dynamic range, you'll also get a wide frequency response: 20 Hz to 18 kHz with metal. And with an electronically controlled DC motor and dynamically balanced flywheel, wow and flutter is just a spec (0.045%), not a noise.

Technics RS-M51. Don't be surprised if its intelligence goes right to your head.



A new intelligence in a metal tape deck. After it senses the bias and EQ levels, it precisely controls the recording levels.

HI-FI READOUTS

In a sense, with a multiplicity of useful audio-power displays and real-time analyzers on the market, audio has already gone video

By Ivan Berger



NCE, during the psychedelic Sixties, lights flashing in sync with the music were an obligatory part of any really hip hi-fi system. Audio-signal displays have come a long way since then. Besides being visual accompaniments to an aural experience, today's hi-fi readouts provide a wealth of information that can give technical reassurance (or warn of malfunction) or simply let you know the precise sonic character of the music being heard.

Today's built-in or separate-component readouts generally take two forms: audio-power displays (usually with rows of light-emitting diodes, though sometimes with meters) and real-time analyzers that show the relative signal strength of various frequency bands. Oscilloscope displays are visually interesting and useful, too, but if you want one you'll probably have to use a testbench scope because, aside from those built into Sequerra and Marantz equipment, audio-component oscilloscopes along with four-channel vanished sound.

Level Displays and Meters

Audiophiles with high-power amplifiers quite rightly want to know how much of the power they paid for is actually used and under what musical circumstances. And even those who have lower-power units may want to confirm a nagging suspicion that they're running out of power on fortissimos and transient peaks. Audio-output readouts can perform either function and a few others besides.

Signal-level meters have been with us for twenty or thirty years now, though those of long ago were mostly for line-level signals while today's are usually also designed to read speakerlevel signals. Mechanical-meter models are still available, but more and more the trend is toward rows of LEDs, usually spaced in 3-dB steps.

Both meters and LED displays have their respective advantages. Meters, for some, seem to be more professional or elegant-looking than LED displays. And since a needle covers a continuum of points, one can read levels within a fraction of a decibel-provided, of course, that the meter is large and accurate enough and the signal level isn't changing too rapidly. LED arrays have the advantage of being easier to see from a distance, and some of them (such as the Audio Technology 510-B) use smaller decibel intervals between LEDs near the 0-dB reference point. And some of the Nakamichi equipment uses fifty-two-step plasma displays that resolve to a fraction of a decibel. LED

and plasma displays have another advantage: fast (almost instantaneous) response. Meter needles have physical inertia, but electronic displays do not, which means that they can respond to signal peaks faster and more completely. For example, Radio Shack's APM-200 readout (and quite a few cassette decks) not only has meters that show average signal levels but a series of LEDs to indicate peaks as well. It's possible to make meters that, with some electronic assistance, respond to peak as well as average levels, but they are more expensive.



\$5,000, 50-pound, rack-mounting Badap spectrum analyzer from Crown shown on the facing page (see also page 67).

Three types of display modes are available, separately or together, on today's level readouts: average (similar to the standard VU meter in its easy-tofollow action), peak (faster moving and more indicative of actual maximum signal levels), and peak-hold (which displays the highest peak level that has occurred within the past fraction of a second or, in some models, the past 20 minutes or more). With the electronic displays, each spot can be individually controlled, the highest reading remaining on view while the line of other display spots continues to indicate the moment-to-moment peaks. A peak-hold meter needle stays immobilized at the peak reading.

If you want to know your system's

maximum power demands, then a peak-reading display will be the most informative. If you're concerned about potential speaker damage, then an average reading may be more to the point, since the average power does more to heat up speaker components than short-lived peaks do (*really* powerful peaks can put excessive physical stress on a speaker cone assembly, but you'll hear that the instant it happens).

If the same peak-level reading shows up repeatedly on a separate-component level display, it can be a sign that your amplifier is clipping at that point. But it can also mean that your program material has been limited to some peak value already. On FM, in fact, that's extremely likely. If turning up the volume moves the peak limit up, then it's the program material that's limited; if not, it's your system.

If you're using an audio display to monitor recording levels from across the room (handy if your tape deck has the typical small meters), then your choice of peak or average will depend on which type of display you're used to judging recording levels by. Bear in mind that the "0" level of your external meter or display may not correspond to the one built into your recorder even if both are reading signals the same way (peak or average). The only way to keep the two displays synchronized is to control the signal level before it reaches either readout, a facility few stereo systems provide.

A peak-hold feature has some additional specialized uses. Observing the maximum output of your system while you listen to a record with the low-level passages just audible can determine the dynamic range you demand of your system. If the maximum reading is frequently the same as your amplifier's rated maximum output, then it's time to consider moving up to a more powerful amp or more efficient speakers. If the display can read line-level signals and has a long peak-hold (as the Technics SH-9020 does), you can also monitor the levels on a record before dubbing it as well. If you're taping something unattended (recording a radio program under timer control, for example), you can check your peak reading afterwards to make sure you neither under- nor over-modulated the tape.

PEAK-HOLD is also useful if your display signals clearly when you're at your amplifier's maximum rated output. Audio Technology's 510B, whose LEDs are green below the yellow "0" LED and red above it, makes that process easy—*if* your amplifier's power is 25, 50, or 100 watts, the three switch-selectable 0-dB reference points in the



"System/speaker/room equalization is easier using an RTA than it is by ear."

unit. And the reading won't depend too much on your speaker impedance—the 510B has a matching switch for speaker impedance. If you're building the Heathkit AD-1701, you can mark your amplifier's power easily by substituting a yellow or green LED for one of the red ones Heath provides, placing the substitute at the decibel level corresponding to your power level.

Matching is one area where the power meters and displays built into amplifiers and receivers have a real advantage: their zero points are matched to their components' rated power (at least in theory). One disadvantage, to my mind, of most power indicators is that they read out in decibels instead of watts. It might be more audibly relevant to rate amplifier power in dBW (decibels relative to one watt) than in plain old watts, but the habits of years are hard to break and I still prefer to read my amplifier's output the oldfashioned way.

Spectrum Analyzers

With spectrum analyzers, we get into displays that can help control what we hear-at least if there's an equalizer available. The purpose of an equalizer is to adjust the level in every part of the sound spectrum so that the sound reaching the listener's ears has the desired octave-to-octave balance. The term "spectrum analyzer" as we use it here is actually a misnomer. In laboratory parlance these instruments are known as "real-time analyzers" or RTAs. An RTA usually analyzes sound in bands one-third of an octave or one octave wide. (There's at least one unit that splits up the audio band into one-

REAL-TIME ANALYZERS

MUCH of a writer's fun in doing an article on advanced audio equipment comes from the opportunity it gives him to get his hands on the subject matter. As part of my research on this one, for example, I examined seven realtime analyzers. Here's how, from a very personal, short-term-user's point of view, they stacked up (two others I didn't use are also discussed briefly).

• Audio Control C-101. This \$549 unit is two components in one at a one-component price. The analyzer side of this equalizer-analyzer device is available separately (as the C50A) and is easy to use (thanks to big, closely spaced LEDs, plus a line of green LEDs across the display's middle that serves as a reference line during sound analysis or equalizing). The display can be run at either of two "decay" speeds. Slow is more accurate for equalizing, fast is more fun and more informative when "watching" the music. Sound-pressure level can also be measured. However, you cannot switch from the microphone input to direct, line-level connections without reaching behind the unit to unplug the mike. This might be a nuisance with custom-installed or rack-mounted systems.

The equalizer side of the C-101 contains the usual ten sliders per channel (one per audible octave), a tape-monitor substitution switch, and provisions for equalizing the signal being fed to the tape. It also has a switchable infrasonic filter and a switchable rumble reducer that adds the two channels together at low frequencies to reduce vertical, outof-phase turntable rumble with little effect on the bass.

The equalizer controls were convenient, with right and left sliders for each frequency band paired together. Some might find the yellow-brown control markings hard to read against the darkbronze front panel, but they gave me no trouble except in dim light.

• Crown RTA-2. A beautiful-looking machine, although beyond the price

range (\$2,595) of most home users. It naturally looks less like a home component than a lab component, and its onethird-octave display is three times as informative as the usual octave-band type (though it can be switched to an octaveband mode, simplifying the process of setting up ten-band equalizers —Crown recommends starting in the octave mode, then fine tuning in the one-thirdoctave mode during equalizing).

Because the RTA-2's display is a continuous oscilloscope trace rather than a grid of discrete LEDs, smaller variations in level show up clearly. And because the display is a scope, you can also use it to display other signals, such as FM multipath or stereo-phase "scrambledegg" patterns. The scope has an automatic beam shut-off, so a steady, unmodulated signal won't burn a spot in the tube's phosphors.

The RTA-2 doesn't come with a calibrated mike, but it has instead a professional, three-conductor, XLR-type balanced-line microphone input. Good mikes for the RTA-2 shouldn't be hard to find.

• Eventide Clockworks. This, like Crown's RTA-2, is a one-third-octave analyzer. But the resemblance to the Crown unit ends there. For one thing, the Eventide has no display or control panel of its own but hooks directly into a home computer and uses the computer's keyboard and display. It also lacks a microphone input and comes without a microphone, though you can hook a microphone preamp to its line-level input. It sells for about \$575.

The Eventide's output as seen on a computer display is an array of vertical bars. The exact nature of the display depends on the computer it's attached to. The version for an Apple home computer, for example, can produce a color display (if a color monitor or color TV is used). The version set up for the Commodore Pet computer shows thirty-two labeled bars (one bar is for overall level) with on-screen lettering indicating the display mode and characteristics. On the version meant for Radio Shack's TRS-80 Series II, the decibel levels are easier to read but the frequencies are more difficult to make out. A "cursor" spot can be set beneath any bar, however, and the chosen bar's frequency will then be displayed in a corner of the screen.



Eventide Clockworks (arrow)

• Ivie IE-10A. This was the first handheld pocket-size real-time analyzer with built-in microphone, and it was designed for portability (see cover of October 1979 issue). It cannot be set up among your audio components without building some kind of stand, but you can carry it anywhere. The IE-10A can even be read in the dark because the graticule (like a graph) markings automatically light in dark rooms and turn off in bright environments, and the LED display itself grows brighter or dimmer to match room lighting. Thus it can be used for, say, in situ evaluation of car speakers, and it can be taken to live performances too. (In the "Family Circle" in the upper realms of the Metropolitan Opera

ninth-octave segments.) The true spectrum analyzer, in contrast, sweeps slowly across the spectrum. This gives it much finer resolution-it can, for example, show the exact frequencies and relative levels of a tone and its harmonics-but it also makes the process rather slow and usually limits analysis to steady signals. RTAs, on the other hand, can respond to music and show the relative signal strengths in several frequency bands simultaneously and from moment to moment-in other words, in real time. This makes them extremely useful both for quick frequency-response measurements (and corrective equalization) and for the sheer pleasure of watching the music at

play, so to speak. An RTA can be easily and handily combined with an equalizer (as Audio Control and JVC have done and, I suspect, others will be doing within the next year or two). Another very sophisticated step in this direction is dbx's 20/20, a combination that will automatically adjust audio-system response (as picked up by a microphone in the listening room) until it's flat. There are also, incidentally, equalizers with relative-level indicators, such as the units from Soundcraftsman and ADC.

System/speaker/room equalization is far easier using an RTA than it is by ear, though it's still not quite a snap. RTAs usually have built-in generators for "pink noise" (random noise with equal energy in each frequency band) and microphone inputs, and most come with reasonably flat, calibrated microphones to measure actual sound pressures. You simply feed the pink noise through your system (via an auxiliary input) to your speaker and set up the calibrated microphone at your listening position, and what you get is an instant picture of the combined frequency response of your system and your room. When the equalizer sliders (which usually correspond to the frequency bands on your RTA) are adjusted, their sonic effect is instantly displayed.

RTAs have other uses, too. Most of them have facilities for monitoring line-

House, a full Wagnerian fortissimo registers only about 85 dB SPL, by the way, with very little energy above 4,000 Hz.) The display is closely spaced so that you see a frequency curve rather than a bunch of discrete dots. All in all, an incredibly well-engineered handful—but priced, alas, accordingly: \$750.



• JVC SEA-80. Like the Audio Control C-101, the \$600 JVC SEA-80 analyzer has a built-in equalizer and a tape monitor with provision to equalize the signal fed to the tape. The equalizer controls are separately grouped for each channel. The display is small but clear, with the height of a blue vertical bar indicating signal level in each of ten frequency bands and an overall-level band. You can display either left, right, or leftplus-right signals. The display is less sensitive than the other units' and therefore needs a higher signal level. The lowest-displayed frequency band is the octave centered at 31.5 Hz; most of the others go down to the 16-Hz octave. A MEMORY button freezes the display for photography or transcription. The rear panel has a few extras: one switched and one unswitched a.c. outlet and a singleplug DIN tape-record/play jack in addition to the usual four phono jacks.

• Phase Linear 1200. Unlike the other analyzers, this one has output as well as input jacks, so you needn't use up your tape-monitor or processor-loop jacks. For that reason, though, the \$800 Phase Linear 1200 incorporates no tape-monitor jacks of its own. (You can put it in a monitor loop, feeding the signal to the tape deck through it, but it will not display the tape recorder's output.) Also unlike the others, it has both single-dot and vertical-bar display modes. I find the single-dot mode easier to use when equalizing, as it shows me a frequency graph just like the graphs I am used to seeing in print. The bar-graph mode is more vivid and gives a better sense of energy levels; some prefer this mode for watching music. The display is also very clear, and it covers a wider range (twelve octaves, 16 to 31,500 Hz) than any of the others.

The unit is quite handsome and styled like a piece of rack-mounted equipment—which it *almost* is. The manual is a sheer delight—clear, comprehensive, and full of useful information—one of the best I've ever read. The Phase Linear, like the Audio Control and Scott analyzers, comes with a separate calibrated microphone. In addition to providing a stand, Phase Linear provides a lavalier clip so you can mount the mike in places where you can't use a stand.

• H. H. Scott 830Z. This \$600 unit was the first of the home analyzers, and it incorporates quite a few useful features. It's the only one with both speaker-level and preamp-level inputs; it has separate input-level controls for both microphone and line inputs; it can display left, right, or left-plus-right linelevel signals; it comes with a test record; and, in its SPL sound-measuring mode, it offers both A- and C-weighted measurements. The manual is fairly comprehensive, and the test record (of warble tones) is useful for checking cartridge responses (there's already a warble-tone generator in the 830Z for other response checks).

I found the LEDs so widely spaced that it was hard to "connect" them mentally into a single curve. As signal levels shift, there's a tendency for two vertically adjacent LEDs to be illuminated at once, signifying that the correct value lies somewhere between them. The display also has extra LEDs to indicate which decibel scale is in use—a handy touch.

A NOTE on microphones. Those analyzers that come with their own microphones (the Audio Control, Phase Linear, and Scott models) have electretcondenser types that take their required power from the analyzers. Thus you can't readily use the supplied microphones for recording. The analyzer manufacturers caution that the d.c. voltages that power their microphones can damage others plugged into their mike jacks.

It was a real breakthrough when realtime analyzers became affordable. Now they're getting smart—witness the dbx and Crown Badap analyzers, both of which use the power of microcomputers to increase their versatility or operating convenience.

The dbx 20/20 (about \$1,300) works like any other ten-band equalizer and analyzer—except that it can perform its equalization *automatically*. All you need do is set up the microphone, switch on the pink noise, press a button, and step back. The analyzer's ten display bars level out as the pink noise smooths out to a more even rush of sound—all without a human hand on the equalizer controls. The whole process takes only a few seconds.

The Badap analyzer (now sold by Crown International for about \$5,600) is self-contained, right down to its 9-inch color video display (see frontispiece). It already has built-in programs to do many of the things the Eventide unit described above promises, plus a few things made easier by color (such as displaying peak and average levels simultaneously in different colors).



level signals (the Scott 830Z has special provisions for monitoring speaker-level signals as well). This lets you use the analyzer to check frequency flatness practically anywhere within a system. You can, for example, fine-adjust phono-cartridge matching for the flattest response (pink-noise test records would be best for this; other frequencytest records can also be used, but not as easily). You can also use an analyzer's built-in test signal (virtually all home RTAs except the Eventide and Ivie have one) to check your tape recorder's frequency response with each of several different tapes as well as at each of several different recording levels.

With the analyzer connected to your speaker output (using voltage-dropping resistors if necessary) you can monitor your system for excessive high-frequency energy, which is a sign of signal clipping and potential tweeter damage. Unfortunately, only the Scott analyzer is set up to monitor speaker outputs directly, and it would be best to check with the manufacturer on the feasibility of feeding the output of a reasonably powerful amplifier into the line-level input of an RTA. (A two-resistor voltage divider may be required.)

How much high-frequency energy is "excessive" depends on both the type of music and the quality of the recording. "Audiophile" records are likely to have more such energy than ordinary ones; jazz will frequently have more highs than classical, and really good rock or synthesizer recordings (rare as those are) will probably have more high frequencies yet.

Which brings us to another use for analyzers: they're helpful reminders of the frequency content of the material you intend to tape. If that material has a very hot high end, you have a choice of turning down the level or switching to metal tape (if your deck can use it) to avoid high-frequency saturation. The Spectro-Peak indicators on some JVC cassette decks (seven bands on the KD-A7, five bands on the KD-85 and KD-65) are there for just that purpose. These are all, of course, just visual reminders of things your ears could very well be telling you anyway. But additional reminders can be helpful, especially when a mistake might mean a hopelessly distorted tape or a blown tweeter.

ANY RTAs also have an "SPL" mode so that they can be used, together with their microphones, to measure sound-pressure levels. That's of use in seeing just how loud you're playing your system, in checking the ambient noise levels in your room, and so forth. As with other well-made tools, one discovers more uses for these various readouts-and becomes more skillful in their interpretation-the more accustomed one becomes to what they can do. In a sense, the "video era" has already arrived in the world of audio, and the addition of TV-tube images will only complete an already informationfilled picture.

SEVERAL completely different electronics technologies go into the visible portions of today's audio displays: LEDs (light-emitting diodes), LCDs (liquid-crystal displays), CRTs (cathode-ray tubes), and plasma and fluorescent displays. Here's how they work.

● CRTs are about the last vacuum tubes still in common use (you remember tubes, don't you?). In a CRT, an electron "gun" at one end fires electrons through the vacuum at a screen of chemical phosphors covering the other end of the tube. The phosphors emit light when hit by the electrons. En route, the electrons pass between deflector plates which control just where on the phosphor screen the beam will hit.

Almost any "picture" can be drawn on a CRT, which makes them suitable for television, radar, computer terminals, oscilloscopes, and swept-spectrum analyzers. Their main advantage with real-time analyzers is that they display a continuous range of levels rather than dividing levels into a discrete number of steps.

CRTs have some disadvantages size, cost, and a need for very high voltages—and these are enough to eliminate their use in most home appliances except for television.

✤ LEDs are, after CRTs, the most familiar electronic display systems in the home. They can appear as discrete dots (as in most audio-level displays), individual segments of digits (as in calculators and digitally synthesizing FM tun-

HOW THE VISUAL DISPLAYS WORK



ers), or as round or square elements in rows or columns that make up "matrix" displays (like those in most home realtime analyzers).

A LED, like all ordinary diodes, passes electricity in only one direction. When current flows through a LED, the LED's semiconductor material (usually gallium-arsenide phosphide or gallium phosphide) emits light. At present, red, green, yellow, and orange units are available. Blue LEDs have been made in the laboratory but are quite inefficient producers of light at this stage. LEDs respond practically instantaneously to input signals and have very long lifetimes.

• **Plasma displays** are also a bit like tubes, but, unlike CRTs, plasma tubes are flat and platelike and instead of a vacuum they're filled with a gas (argon or neon) that glows when a sufficiently high voltage is applied to it (argon glows blue, neon orange). Electrodes control where the voltage is applied and thus where the tube glows.

• Fluorescent displays are vacuum tubes—triodes, to be precise—with a cathode to emit electrons, a plate to attract them, and a grid to modulate the electron flow between them. But in this case the plates are coated with a substance that fluoresces (glows) brightly when electrons strike it. The plates can be spots on a bar-graph real-time analyzer display or digits in a calculator readout. Switching the plates on and off controls which spots light at any given instant.

LCDs differ in one primary way from all the above. The other displays emit light; LCDs can only "shadow" or reflect it, depending on whether they're backed by reflectors or illuminated surfaces. LCDs are sandwiches with a filling of an organic liquid-crystal material between two slices of glass with a transparent, conductive coating on the inside of each slice. The desired spots or numbers are etched in the conductive coating. When a voltage is applied across opposing coatings, the sandwiched liquid light-polarizing properties crystal's change, producing a visible display. LCDs can come in a great variety of colors, patterns, and designs. They cannot respond as quickly as the purely electronic displays, but LCDs are now being made which are fast enough for most audio applications.



The micro processor controlled turntable that automatically selects and plays the tracks you want to hear.

Push the wireless remote control button and select track 1, track 3, track 6 or any other. The micro processor automatically moves the arm to play the selected track. You can repeat the same track, select another or play the entire record over again all by wireless remote control. And there's an LED readout to indicate the track being played.



Since you can select the music you want to record, making tapes from



your recorc collection becomes easier and more convenient than ever before.

The MT6360 Linear Drive turntable is not only great for really enjoying the music you like, but it's a sophisticated audio component with some extraordinary design features.

Fisher's exclusive Linear Drive. With Linear Drive, the only moving part is the platter itself. So, there's virtually nothing to go wrong. And, no inherent turntable noise. (For you audiophiles, wow and flutter is just 0.035% and rumble is a low - 70dB).

There's a lot more. There's a servo circuit that continuously monitors and locks n record speed.

Flus a strobe light and fine speed control so you can monitor the accuracy of speed and alter pitch.

The MT6360 has a viscous-damped "floating" tonearm with a specially designed integral stereo magnetic cartridge. And there's even a muting circuit to eliminate that annoying "pop" you hear when the tonearm touches down.

It's what you'd expect from the new

Fisher. We invented high fidelity over 40 years ago. And never stopped inncvat ng. So check out the new MT€360 at your Fisher dealer. One demonstration of the automatic trac≺ selector will change, forever the way you listen to records.

Fisher Corporation, 21314 Lassen Street, Chatsworth, CA 91311 © Fisher Corporation, 1980





er's field of vision.

In in-dash stereo units, the incorporation of some kind of gradual, automatic hi-blend and/or hi-cut circuit to reduce the hiss content of weak FM signals is likely to be nearly universal in a year or two. Mitsubishi and Pioneer (in its new Supertuner II series) have now joined the companies (including Alpine, Clarion, Jensen, Kenwood, and Marantz) offering it.

More and more in-dash units now have preamplifier-output jacks either as their only outputs or in combination with lowpower built-in amplifiers. As Alpine points out, this lets the user buy a complete unit now, then upgrade it later with the addition

STEREO REVIEW has not in the past paid much attention to so-called "music systems" (assemblages of components or quasi-components from a single manufacturer intended to be bought as a ready-to-play package) because it is generally felt that the consumer willing to inform himself could do better making his own individual component choices. Furthermore, such music systems have traditionally been bottom-of-the-barrel affairs, specializing in chrome-covered plastic and 3watts-per-channel outputs.

At the Chicago show this year there appeared quite a number of "super" music systems, components put together with some care by the manufacturer, often with lavish and expensive detail. The typical super system is composed of "separates"—sometimes even separate preamplifier, power amplifier, and tuner.

But why all this, and why now? Because of the appeal of equipment racks, which virtually all super systems employ or at least are adaptable to. Why not see if the U.S. consumer-particularly the newcomer to hi-fi-will buy the racks already filled with a matched system, as many overseas purchasers will? These prepackaged super systems may turn out to be one of the best deals going-or they may simply be another way to make lo-fi attractive. By and large, they appear to be made up of standard components, which permits the purchaser to upgrade a particular piece (even with a different make) later on. Since so many of them are made up of separates, you can haul out the tuner or cassette deck for repairs and go right on listening to records. And prices are certain to be less than what you would pay for the whole works piecemeal.

The basic Sansui "Super-Compo" Series 900 consists of a rack, a preamplifier with mixing facilities and mixing display, a power amplifier with an elaborate LED peakpower-output display plus a ten-band spectrum analyzer (!), a synthesizing tuner, and

Alpine Model 3011 equalizer

targets for theft. It also leaves enough panel

room for longer slide controls, which can be more finely adjusted. (Sony uses diagonal

sliders on its nine-band model to achieve

in-dash units as well) is toward LED dis-

plays of two basic types. Kenwood has

LEDs on their equalizer sliders to give a

fast, visual indication of their settings even

in the dark. (Jensen equalizers, incidental-

ly, have illuminated control panels.) That's probably a help to the driver. However,

quite a few other manufacturers (Audio-

bahn, Cobra, Car-Fi, Concord, JSL, Pan-

The third trend in equalizers (and some

long travel with a shallow panel design.)

HE enormous car-stereo exhibits at the Summer Consumer Electronics Show would have provided few revelations for regular readers of this magazine. Our June 1980 report on car stereo, still on some newsstands as the CES began, covered much of the equipment that made its official debut in Chicago. But there were enough new introductions to uncover some trends and make former ones stand out more clearly. There was also a disappointment-only a handful of manufacturers (Alpine, Craig, Clarion, Jensen, and Sony) seemed to use the new Ad Hoc Committee specification system in their literature (see "Audio/Video News," January 1980). On the other hand, as time goes on (especially now that the Ad Hoc Committee has been absorbed by the Electronics Industry Association), that situation should improve.

One major trend was toward the incorporation of five-band equalizers into in-dash stereo units: among those doing this were Audiobahn, American Audio, Audiovox, Fujitsu Ten, Kraco, Panasonic, Roadstar, and Sound Barrier. For separate equalizers, there were at least three design trends: one is toward very compact designs such as Alpine's new Model 3011 ($13/16 \times 57/8 \times 31/8$ inches), Clarion's EE 115 ($31/2 \times 21/2 \times 2$), Mobile Audio Development's MA-7P seven-band Micro ($11/2 \times 51/4 \times 13/8$), and Sony's nine-band XE-9 ($15/8 \times 55/8 \times 7$).

A second equalizer trend is to large, flat equalizers, typified by the Jensen and Zapco models, which can be slid or swung into concealed positions after being set. That saves space, lets you guard your equalizer settings from the fingers of curious passengers, and makes the equalizers less obvious



-80

η γοοτηστε

TO LAST MOATH'S

SURVEY

Return of the

Music Systems

A Report by

Ralph Hodges

A Report by Ivan Berger



a direct-drive turntable. A number of options are available.

JVC offers five systems made up variously of receivers or integrated amplifiers, beltdrive or direct-drive turntables, optional cassette decks, and the appropriate rack.



All the JVC systems include loudspeakers.

The Fisher System 9000, with a suggested price of \$2,700, consists of a rack, power amplifier, preamplifier, tuner. cassette deck, direct-drive turntable, and speaker systems, together with a microprocessor control unit that can be programmed to control the entire works for seven days and which will respond to commands from a wireless remote-control unit.

Akai is featuring systems of minicomponents, the UC-5 and the UC-2. The former is made up of a preamplifier, power amplifier, synthesizer tuner, and cassette deck, the whole works bearing a suggested price of \$1,634.80. The latter system consists of integrated amplifier, analog tuner, and deck for \$670. More such systems are available from Sony, U.S. Pioneer (which became a leader in this type of merchandising with the introduction of the Component Ensemble Series a few years ago), Mitsubishi, Hitachi, Onkyo, Toshiba, Sharp, Philips, Kenwood (with seven systems), and Cybernet, a company just making a full-scale entry into the U.S. market. The prices for



these companies' systems top out at about \$1,300, but JVC's go on to \$1,700 and those from Fisher, as noted above, to \$2,700. And, further, Teac has indicated that it will be offering such package-purchase opportunities in the immediate future.

of a higher-power separate power amp. On Sony's XR-77, however, the built-in 12watt-per-channel amplifier can be used to feed the front speakers while the preamp outputs are used with a larger amplifier for the rear ones. (Since the rear speakers usually have heavier woofers to take advantage of the large trunk enclosure behind them, and since they're further from the driver, they usually require or can take more power.)

Other features that appeared at CES are too new to have become trends yet (if they ever will): Clarion's knobless \$900 PE-959A, able to switch stations at up to ten programmed times, made its debut. Mitsubishi announced "pinch-off protection" (the pinch roller retracts when the power is off). Panasonic showed its second overhead "Cockpit" model, the RM-310; unlike the earlier RM-610, this one lets the driver see the FM tuning dial without assuming a supine position. Panasonic and Alpine had models with search-sensitivity controls to determine what signal strengths their builtin seek-or-scan circuits find acceptable and what they will ignore as too weak. Sony's XR-50 has a "System EQ" switch that boosts the response at 125 and 10,000 Hz to overcome car noise and acoustics.

In the way of accessories, Antenna Specialists and Russell Industries announced FM antenna boosters (others are already made by Antennacraft, Audiovox, Radio Shack, and Winegard) to boost weak sig-



nals, and Pioneer introduced the opposite an add-on local/distance switch to help attenuate overly strong ones.

In amplifiers, Clarion showed an ultracompact, 12-watt-per-channel stereo model, the GA 301E (1 x $5\frac{1}{2}$ x 4 inches), while Alpine went to the opposite extreme with a 150-watt-per-channel "MOSFET Incremental Voltage" amplifier to sell for about \$500. The Alpine amplifier has a two-stage pulse-regulated power supply (to draw less current from the car's battery at low power levels) and is designed to shut off automatically if its temperature rises above 85 degrees C or if the voltage of the car's electrical system drops below 10 volts. And Zapco showed an elaborate amplifier at 75 continuous watts per channel (150 total watts) with such features as a separate power module and an optional "energy storage module" that increases the amplifier's total power to 165 watts rms.

Most new speaker models were designed for either higher power-handling capacity or shallower mounting; alas, the two goals are somewhat antithetical. Perhaps falling in the greater-power-handling category are several new *four*-way loudspeakers. Among the entries: Jensen's Quadrax and units from Mitsubishi and Sparkomatic.

The number of new add-on tweeters or midrange/tweeter modules increased too; Alpine, Clarion, Magnum, Sound Barrier, and others had new models on view. Clarion's are especially interesting in that they can be either separately mounted or installed coaxially in the grilles of their new matching woofers (the grilles have removable panels to permit this).

Pioneer's TS-1600 and Jensen's J2000 were the most distinctive-looking new car speakers. The Pioneer, designed for reardeck mounting, has a tweeter that sticks up periscope-like above its 6¹/₂-inch woofer, "directing the highs straight ahead at the listener through diffuser plates." The Jensen is a golden metal tube with a woofer at



one end, a passive radiator at the other, and a tweeter in the middle. Self-amplified speakers were introduced by Sony, Sound Barrier, Concord, and others. Sound Barrier's offerings included models in enclosures as well as those designed for flush mounting. And Concord's Equadyne speaker uses the same "dynamic compliance" active impedance-control system as the power amplifiers from this company that we described in June.

Some of the new domestic cars pose speaker-installation problems, problems the speaker industry has been working hard at solving. The new car designs have forced production of a host of new speaker sizes (4 x 10-, 5 x 7-, and 6 x 8-inch ovals, for example, or $3\frac{1}{2}$ -inch round ones), with most speaker manufacturers offering one or all of them. But the aptly named Adapt-a-Sound, a simple plastic accessory, permits installation of 6 x 9-inch speakers in the trunks of many cars taking any of the above oval speaker sizes (though not the $3\frac{1}{2}$ -inch round).

The more you get of today's high-performance sound gear, the more you'll want to keep it (and the more light-fingered persons will want to keep it for you). And so this summer's CES also saw new burglaralarm models from Auto Page and Page Alert (to summon you by radio when your car's being molested) plus the debut of Burbank's "Audio Safe," a tough-looking locking cover for your stereo equipment.



ONIO K.'s first album, "Life in the Foodchain," appeared at the offices of STEREO REVIEW without much fanfare. In fact, it arrived without even a cover, being what is referred to as a "test pressing." There was no biographical data supplied with it (who was this guy?), no lyric sheet—nothing but a record and a song listing. Noting, however, that the concluding tune was entitled H.A.T.R.E.D., I decided to give the mysterious disc a spin, since I have been known to assert that life is short and you might as well hate as many people as humanly possible in the time alloted to you.

Soon, my headphones were filled with the delicate, plaintive sounds of a solo acoustic guitar in the great folkie tradition, sounds I had come to detest after hearing them on my college lawn for longer than I care to think about. And then I heard a voice: choked, mournful, and pretty undistinguished. It was singing these lyrics, in tones more conversational than musical:

Now I know it's not unusual;

- It's nothing so unique.
- There's probably hundreds of wonderful love affairs
- That go bad in this town every week (it's a big town).
- But all of them others, them sad-hearted lovers,
- Could cry in their beer, what the hey.
- It didn't concern me, was none of my
- business,
- I never had nothin' to say.
- But suddenly darlin', the table has turned, You have left me for somebody new.
- And now it's hard to express the resentment ' I feel
- For the years that I've wasted on you. ©1978 Worthless Music

Then a dead stop. Softly, seductively, the singer declared, "But let me kind of put this another way. Okay?" At which point all hell broke loose. What sounded like the world's loudest, fastest punk band crashed in around my ears with a Ramones-ish redo of the preceding verse, followed by a five-minute rant that was considerably angrier and ended with the recording studio being blown up. Needless to say, by the time all this aural carnage was over, I was persuaded. Tonio K., whoever he was, was clearly my kind of guy.

Further exposure to the man's work altered my opinion not one whit. The rest of the album turned out to be a crazed, brilliant meditation on what he described in one tune as "the Funky Western Civilization"; it made me laugh and it made me think and sometimes it even made me want to dance, which is more than can be said of 99 per cent of the albums currently before the public. (And when I finally got a "real" copy of "Foodchain" it turned out to have the cleverest packaging job of the year to boot.) A few weeks later, I caught one of K.'s rare live appearances and was equally impressed. His onstage character was a bomb-throwing anarchist out of an old Charlie Chaplin comedy, which struck me as one of the most appropriate rock-and-roll metaphors I'd ever seen. So, when I heard that the man was in town recently to promote his latest-and-greatest platter, "Amerika" (this time on Arista, which may never be the same), I decided I had to find out if there was in fact a real person perpetrating these outrages on an unsuspecting public.

AM relieved to say that there is. Tonio, clad in a rocker's leather jacket and shades, met me at the Arista offices in Manhattan, where we discussed a variety of subjects ranging from the infallibility of hamsters (more on that later) to the current global situation, and he turned out to be every bit the engaging wiseguy his songs had suggested. He walks it, as they used to say, like he talks it. For the record, he's around thirty ("I could be over or under"), a California kid (he grew up in the San Joaquin Valley area), and an ex-greaser, and he will not disclose his real name (I asked him). When asked to cite his influences, he reels off Dada-ists

> When asked to cite his influences, he reels off Dada-ists Hugo Ball and Kurt Schwitters, James Brown and the Famous Flames, Dick Dale and the Deltones. the Crickets, the Rolling Stones, Bob Dylan, Thomas Mann...

Hugo Ball and Kurt Schwitters, James Brown and the Famous Flames, Dick Dale and the Deltones, the Crickets (with whom he played for a time in the early Seventies), the Rolling Stones, Bob Dylan, Thomas Mann (whose short story "Tonio Kröger" seems relevant), Sam Peckinpah, and Jackson Browne, and he is not kidding about any of them. Clearly, Tonio K. is not your average Los Angeles singer/songwriter, and the improbability of his stumbling on this other direction is not lost on him.

"People constantly think I must be

from New York," he told me. "They can't believe I grew up on a farm in a pastoral California setting. The only thing I can say about that that makes any sense to me is that, with my attitude, if I had grown up in New York I would have been dead ten years ago."

But how did that obsession with the Dada movement begin?

"That," he said, grinning, "is a good story. That's such a good story you may think I made it up. It's from high school; my friends and I were into this creative-vandalism trip.

"See, I was doing airbrush art because I had cousins in central California who had hot rods on the cover of Hot Rod magazine; that was my first deviate focal point. And through them I met this guy Ed "Big Daddy" Roth, who was the most famous airbrush artist, did all the sweat shirts and stuff. And I was inspired by him to become an airbrush artist.

"So anyway, we got into a trip where we would steal books out of the library, bring them back to my place, and then I would alter the pictures. Airbrush them . . . add dicks and tits, the usual teenage humor. But it was always with this bizarre edge, because we wouldn't just ruin the books. We returned them in the overnight book return and nobody was any the wiser. And we would just do these little alterations so somebody could be reading along and they would look at the pictures twice, and it would be all wrong. Unfortunately, of course, we were never able to gauge their reactions. We had a pretty good idea, though.

"So one day we were walking through the Fresno County Public Library, just grabbing books, and I literally randomly grabbed a book off the stack and it was a Dada book. I don't remember which one. We opened it up to check it out and make sure it was worth defacing before we stole it, and we started going through it and suddenly we thought, 'Look at this stuff-it's better than what we're doing.' I was a fan from that point on."

He paused for a second. "Those guys were just great. Like, for instance, this guy Marinetti, the Italian futurist writer and painter, was invited by the Nazi hierarchy in 1933 to some cultural dinner in Berlin where everybody short of Hitler was in attendance. So he and Schwitters were sitting at this horseshoe table, and at all the other tables were storm troopers and the ministers for this and that.

"There was all this stifled conversation, and finally the Nazi host asked Marinetti to make a speech. He said he would be very happy to, that he was so carried away with the moment, in fact,



that he was going to make this speech in French-probably to twist it in their side a little-and then he recited this completely outside poem called The Raid at Adrianople, resplendent with shrieks and howls and siren noises. Everybody was totally shocked; they didn't know what to do. For his finale, he was standing up on the curved table in the middle of the rostrum, and he collapsed over the table after whatever howling he did, grabbed hold of the tablecloth with both hands, and slid to the floor pulling everything into the laps of Himmler, Hess, Goebbels, and all those people. Schwitters at that point jumped up and began reciting Anna Bloom, a nonsense phonetic poem of his, from his table in the audience, and they all left Germany very shortly after that."

A HA... I see. Certainly this bears out K.'s 1979 assertion that "Dada was very rock-and-roll." And I can imagine an unsuspecting listener's reacting to "Life in the Foodchain" in much the same way as whoever found his handiwork in the Fresno Library. But let's talk about the new album, I suggested. While I love it dearly, it is somewhat more *serious* than its predecessor. It's almost doom-ridden, in fact.

Tonio seemed to agree.

"I know, it is that," he said, "and sometimes I wonder if people want that in their daily entertainment quotient. But it could be time to get serious; there may be a few more people than those comedy lovers out there who need stuff like this.

"I just have this feeling that we're heading downhill. We clicked into and clocked into a whole new thing in the Eighties. Suddenly there was the end of 1979, and then Iran, and then we clocked into Afghanistan practically on New Year's Day. We're into some stuff now we may not be able to back out of.

"I mean, the Texans, when they're out of gas, will start a war. Texas being a state of mind, as they say, they just won't stand for it.* Look what's happening over there now [our discussion took place the morning after the aborted Iranian hostage rescue]. They hate us, not to mention they want Israel, which we won't give them. They'll cut off the oil, which they are doing progressively and will do finally one of these days or years. That's when the trouble will start. Pretty bleak."

Too depressing even to contemplate, I suggested, a grey cloud forming above my brow.

"Of course," he said, "the optimistic side of that is I could be totally full of it, and I hope that I am. Somebody please prove me wrong."

It must be rough on somebody as, er, sensitive as Tonio to deal with the news media, at least given the current geopolitical climate.

"I just don't do it," he said. "I don't have a TV, and I never read the papers. Can't stand 'em. I literally go into anxiety swoops and get faint when I hear that stuff."

Oh sure, I thought. And pigs have wings. But enough of these bald-faced lies. Let's talk about . . . hamsters. Any truth to the rumor that a hamster actually programmed "Amerika"?

Tonio nodded, as if to say "Of course."

"Yeah, I have this hamster, John Paul III, who lives in Vatican City, which is an elaborate habitrail on my back porch (it goes over the ceiling and has a north vestibule and an east wing and on and on). And John Paul also has a mouse companion, the ever faithful Father Mickey.

"Now we had three songs we'd done for the new album: The Night Fast Rodney Went Crazy, Doggytown (which is actually hilarious), and You Make It Way Too Hard. Clive [Davis, Arista president] hated Doggytown, John [Devirian, Tonio's manager] didn't think we had done Too Hard as well as we could have, which I was sort of in agreement with, and Nick [van Maarth, his producer and guitarist] hated and continues to hate Fast Rodney. I sort of like and dislike them all equally.

"So we were trying to decide which of the three to use, and I called everybody I knew and gave them the three names, and there was no majority opinion. So finally I decided the hell with this, because John Paul III had what I call the sphere of enlightenment, one of those little clear plastic balls that you insert the hamster in, and by walking in it he's able to move around the house.

"So I put John Paul in the sphere of enlightenment, put a piece of legal paper down with *Rodney* written on it, *Doggytown* written on it, and *You Make It Way Too Hard*, the object being that whichever one he rolled over first in his obviously enlightened state of infallibility would be it. And he rolled over *Rodney*, which I was actually glad about. I mean, we paid Flo and Eddie a lot of money to sing on it."

That makes as much sense, I allowed, as, say, the American presidential-primary system.

"Oh yeah," Tonio said. "Inscribed on the inner groove of the album are the words 'hamster's choice."

At this point, the wisdom of Tonio's contention that there is really nothing left to say seemed inescapable. Still, I couldn't leave without finding the answer to one last nagging question: was Tonio secretly a Believer? Given papal rodents, references on his new album to the Book of Revelations, and the recent example of Bob Dylan (a major formative influence on the young K.), it seemed at least plausible.

"I've had those thoughts since about '72," he said seriously. "There's a song that will be on the next record called *Hey John* that I wrote back then and can be updated, which I'm gonna do, which is about how uncanny all the prophecy is, all that we're going through. Read the headlines and then cross-reference them with Daniel, Isaiah, and Revelations."

I must have looked a trifle pained, because suddenly he leaned forward earnestly.

"Mind you," he said grinning, "I'm much too cool to be a Christian."

As I mentioned earlier, this Tonio K. is my kind of guy. He'll probably hate me for saying this, but I think we should run him for President. Say about 1984.

Cognizant that this is indeed an Age of Lowered Expectations, Tonio K. (left, avec shades) huddles under the world's smallest umbrella with rocker David Johansen.



^{*} Top airplay in Houston mid-July: *Bomb Iran*, by Vince Vance and the Valiants.


tech talk:

Synthesized quartz lock tuning

Staying tuned. Simply put, it's what the tech talk above is all about. To be precise, our tech talk describes incredibly accurate tuning technology. Technology that's yours in the amazing new MCS Series[®] 3260 60-watt* Synthesized quartz phase lock receiver.

That's quite a mouthful, so we'll take it one step at a time.

Synthesize means to bring together or combine. And that's just what MCS has done. They've combined quartz crystal precisionwith microelectronic circuitry to create a tuning system of incredible precision.

The quartz crystal vibrates at an incredibly accurate frequency. When you select a station, a device called a comparator compares the receiver's frequency with that of the quartz crystal, continuously correcting for deviation. This complete circuit is called a Phase Lock Loop and is managed by a miniature computer called a microprocessor.

To make sure there's no doubt about what stations you're locked in on so securely, the 3260/provides you with a large, clear, digital readout of the station frequency/

But that's just the beginning You also get

fully electronic touch tuning, a memory function that lets you program up to six stations on AM or FM, LED wattage meters, LED signal strength meters and much, much, more.

The MCS Series[®] 3260 60-watt Synthesized quartz phase lock receiver. A mouthful that will provide you with an earful of wonderful listening.

The MCS Series* 3260 60-watt Synthesized quartz phase lock receiver only \$449.95.** Only at JCPenney.

Full 5-Year Warranty MCS Speaker. Full 3-Year Warranty MCS Components. Within ten days of purchase of MCS speakers, single or multiple play turntables, receiver, tuber, amplifier, tape deck, headphone, or graphic equalizer we will at our option, repair or replace any item of this modular component system that is defective in material on workmanship. Just-return it to a JCPenneystore with the original packing, carton, and accessories.

For the balance of the 5-year warranty on MCS* speakers and the 3-year warranty on MCS* components we will repair any item that is defective in material or workmanship. Parts and labor are included. Just return it to a JCPenney service center for service.

*60-watt RMS min. per ch. 2 ch. into 8 ohms, 20-20,000 Hz with not more than 0.02% THD.

**Prices higher in Alaska, Hawaii and Puerto Rico.







KOSS THINKS THIS KIND OF SOUND WEIGHS 385 GRAMS MORE THAN SONY DOES.

The MDR-7 Sonyphones deliver the same extra-wide frequency response as the Koss Pro/4 headphones.

The MDR-7 Sonyphones deliver all the smoothness, crispness, depth and tonal color Koss built a business on.

But unlike Sony, it takes our competition 440 grams of metal and molded plastic to do it. That's almost a pound.

On the other hand, MDR-7 Sonyphones weigh 1.9 oz.

And the MDR-5a, MDR-3 and MDR-2 Sonyphones are even lighter.

In short, with Sonyphones, a new generation of headphones is born. Sonyphones mean the end of sacrificing great sound to comfort. Or great comfort to sound.

Because never before has so little weight delivered so much sound. Sonyphones by Sony.

SONY Professional Audio



Carly Simon and Son (Photo by Peter Simon)

STEREO REVIEW'S SELECTION OF RECORDINGS OF SPECIAL MERIT

Carly Simon: Enormous Vitality, Fierce Intelligence

MONG the elite of big-time, bigmoney pop music—where Ripe can turn to Rotten overnight—conscious growth and careful maturation are the easy-does-it exception rather than the greedy rule. For growth (taking risks) and maturation (acting your own age) are, unfortunately, two of the things successful pop artists most often fear: "Who *needs* a one-way ticket to Tasteful Obscurity, to the limbo of good reviews, cult audiences, and no sales?"

Carly Simon, a member of the pop elite by any definition, is also one of the happy exceptions. "Come Upstairs," her latest album for Warner Bros., is not only filled with risks, some daring and impromptu, others cannily calculated, but also with a wry, grown-up self-awareness that is light years away from the squishy self-absorption of so many of her contemporaries. And it is an album that continues the upward arc of a career that's been a success almost from its very beginnings. It seems hard (at least for me) to accept the fact that Carly Simon has been around for almost a decade now, hard to remember that in 1980 she's no longer the brightest kid in the graduating class but a young matron trying to juggle a family life along with a musical career. I have no idea how the family life is going, but the career is obviously sizzling. She has at least three songs in this new collection that are as good as anything she's done before; they offer further proof that she is the possessor of a dynamic sensibility unerringly in tune with the kind of world we're living in at the moment.

Come Upstairs and The Three of Us in the Dark are both brilliant examples of her ability to explore contemporary sexual tensions in a uniquely ambivalent style. She's moved away from her earlier intellectualized, girlish, even rather angry stance (You're So Vain, Vengeance, We're So Close) to a softer, more catlike subtlety, engaged but not committed. Her work somehow seems a lot more womanly for it and therefore a lot more appropriate to the Eighties, a time when the First Fine Fiery Flush of Women's Lib seems to have cooled down to a more reflective, less activist mood (given my druthers, I'd take Colette over Simone de Beauvoir any day of the semaine). Come Upstairs is either about passion suddenly lit between two people who've known each other for years or about passion rekindled. It's a Carly Simon song, so of course you're never quite sure. But the precise mean-

CARLY SIMON: Come Upstairs. Carly Simon (vocals); vocal and instrumental accompaniment. Come Upstairs; Stardust; Them; Jesse; James; In Pain; The Three of Us in the Dark; Take Me as I Am; The Desert. WARNER BROS. BSK 3443 \$7.98, @ M8 3443 \$7.98, OM5 3443 \$7.98.

ing isn't nearly as important as the rich variety of moods that suffuses the lyric from initial impulse to final lines: "Yeah, I'll give you some fire/I'll give you myself/And I will show you my desire." The Three of Us in the Dark is perhaps about the memory of a past lover intruding upon a current relationship, maybe about another, more critical self doing the same. But, then again, it is the Eighties, and one never knows about these new designs for living, do one? Anyway, it's a lovely song beautifully performed by Simon with an accompaniment as cool and as white as moonlight.

Jesse is a serio-comic ramble about a girl who is trying to swear off said Jesse's charms-but she ends up obsessively chasing after him the moment she hears he's back in town. Musically this is probably the strongest track on the album, with a fine freewheeling spirit that commands the participation of what must be the entire Taylor family including daughter Sarah Marie (she is credited with the "la-las"). There are other good things here too, such as Stardust, a rock number about that by-now fairly tattered and quite justly abused figure the Macho Rock Star, and Them, yet another exercise in ambiguity; it might be about any minority group (Short People?), but it has a special poignancy in that it is seen through the eyes of a girl who, though she vowed to resist Them, has instead become one of their conquests.

"Come Upstairs" is one of those alburns that it's a pleasure to report on because it not only dignifies but enlarges the pop scene. Granted that Carly Simon has always made the right friends and found the best colleagues, that she's managed her career with a calm shrewdness that belies her years, and that she evidently listens with more

"A dynamic sensibility unerringly in tune with the kind of world we're living in...."

than half an ear to what her public expects from her, it still can't be denied that she's been making records for quite a while now that have consistently been more than a shade better than those of any of her contemporaries. What distinguishes her work here is what has distinguished it in the past: enormous musical vitality combined with a fierce intelligence that keeps on risking, winning, and maturing. Even among the talented elite Carly Simon is someone special. —Peter Reilly

The Complete Music of Carl Ruggles: Reaching for the Sublime—All the Time

M^Y personal association with the American composer Carl Ruggles and his music goes back to the 1960s, a time of rediscovery for the work of many of the great American musical pioneers. I had the privilege of knowing this crusty, opinionated old New Englander in his last years and of writing about him for this magazine (in the American Composers Series, September 1966). I was subsequently able to arrange the first recording of his Sun-Treader, which at that time had never even been performed in this country! I also helped to rediscover Vox Clamans in Deserto and brought it out in its first modern performance in Hunter College's New Image of Sound series.

Why was I so attracted to Ruggles? Why am I still? Ruggles is austere, difficult, uncompromising (qualities I no longer consider to be *automatic* virtues), but he is an exemplar of the best in the good-old-fashioned American character: honesty, ruggedness, self-reliance, eccentric individuality, and, yes, vision. Ruggles will never be as popular as Charles Ives or played as often as Edgard Varèse, but, I'm happy to say, he has finally reached deserved recognition as one of the great originals of American art.

Conductor Michael Tilson Thomas was an early Rugglesite—at least, considering his years, in the recent revival of the music. He gave one of the early *Sun-Treader* performances, played a tape of it for Ruggles (who never heard it live), and later recorded it. Now he has assembled for CBS—with love and a lot of passion—the *complete* Ruggles. It is astonishing that this important and imposing creative output could be comprehended in less than a dozen titles, four record sides, less than an hour and a half of music. Compared with Ruggles, Anton Webern was almost verbose. Nonetheless, every one of Ruggles' compositions was a titanic struggle with a recalcitrant universe, worked and reworked, revised, honed, and polished. All of them are craggy, dissonant, contrapuntal, mystical, reaching for the outer limits.

But is the collection "complete"? To all intents and purposes. Ruggles destroyed most of his early music; only a few bits and pieces, not recorded in the new release, are said to survive. Even so, it is a collection that features a surprising amount of unfamiliar material. Besides Vox Clamans (never before recorded?), there are two versions of Angels (the original for six trumpets and a later one for trumpets and trombones), an orchestral piece called Men (not the piece from Men and Mountains, but one intended for a symphony to be called Men and Angels), a revised coda to Men and Mountains, an orchestral version of Evocations (better known in its original piano form, which is also here), and, most astonishingly, Ruggles' final composition, a hymn tune called Exaltation, written in memory of his wife Charlotte.

None of this-not even the hymn tune, so different from the rest of his work-really changes our view of him. but it is all material of the highest interest, and it is most vividly presented in these recordings. The process of cultural assimilation of this difficult music and musical style is quite remarkable. The pain, the agony, of getting it to sound like anything at all in performance is largely gone, leaving the qualities of agony and ecstasy in the music to speak for themselves-but then, so it was with Ives at first. The greater ease with the music is particularly noticeable in comparing Thomas' earlier recording of Sun-Treader with this one: though it's not perfectly polished, the lights and shadows of the later version are far more pronounced.

Be fairly warned: even in these latter-day performances and recordings, there is nothing easy about this music, there is no comic relief, no letting up of the battle with the universe. Ruggles' aim was nothing less than the sublime-and the sublime virtually all of the time. There is therefore an awful lot of reaching for the infinite packed into a dense, intense, dissonant space. It is, in fact, a lifetime's worth, the lifetime of one of those big, rugged individualists who are-or once were-the real, though often disprized, glory of Ameri--Eric Salzman can art.

RUGGLES: The Complete Music. Toys. Judith Blegen (soprano); Michael Tilson Thomas (piano). Vox Clamans in Deserto. Beverly Morgan (mezzo-soprano); Speculum Musicae, Michael Tilson Thomas cond. Angels (two versions). Gerard Schwarz and brass ensemble, Michael Tilson Thomas cond. Evocations. John Kirkpatrick (piano). Exaltation. Gerard Schwarz and brass ensemble; Gregg Smith Singers; Leonard Raver (organ); Michael Tilson Thomas cond. Men; Men and Mountains; Sun-Treader; Portals; Evocations; Organum. Buffalo Philharmonic, Michael Tilson Thomas cond. CBS M2 34591 two discs \$11,98.

Al Di Meola: Adept Eclecticism Weaves an Exciting Tapestry of Sound

UITAR virtuoso Al Di Meola quick-I ly became a favorite with lovers of fusion music three years ago when he began recording on his own after serving an apprenticeship with Chick Corea's Return to Forever. Somehow, though, he couldn't manage to produce an album that would appeal to a more traditional audience as well, those with a limited appetite for the frenetic rhythms and frequently rasping rockderived textures of this "new music." No one would deny his mastery of technique and his ability to create aural fireworks on both the electric and acoustic guitar, but there were times when sheer power and virtuosic display seemed to overwhelm or take the place of musical content.

(Continued on page 83)

CARL RUGGLES: Uncompromising



Only JVC combines Super-A purity and graphic equalization in a receiver.



Naturally, you want a receiver that gives you the most for your money. And only JVC gives you both Super-A amplification and graphic equalization.

You'll hear Super-A as pure, natural sound. Violins, cymbals, voices and other complex, delicate sounds are smooth and airy. That's because Super-A does away with most of the measurable switching and crossover distortion, a source of harshness in some conventional Class-AB receivers.



Class-AB Jagged center line indicates switching distortion.

JVC Super-A Minimal distortion in output waveform.

Super-A R-S33 FM/AM Stereo Receiver

At the same time, you'll get plenty of power. The R-S33 shown here gives you 40 watts per channel minimum RMS into 6 ohms, from 20-20,000 Hz, with no mcre than 0.007% total harmonic distortion. A regular Class-A amplifier with this kind of power would be heavy and expensive. But because it doesn't require high idling currents, the R-S33 costs and weighs about the same as a conventional receiver.

Even the most sophisticated amplifier can't correct cartridge peaks, speaker roll-off or room acoustics. Neither can it accommodate your changing tastes in sound as you take off Beethoven and put on disco. That's where JVC's 5-band SEA graphic equalizer comes in. With independent controls at 40 Hz, 250 Hz, 1 kHz, 5 kHz and 15 kHz, it lets you extend the deep bass without creating boominess. Mellow out a voice without cutting the highs. Add brightness to the extreme highs and more.

EASE-2 IPAN

With all this, the R-S33 has plenty of other features to recommend it: directcoupling, a sensitive tuner section with linear-phase IF filters, two tape monitors with equalizer and dubbing facilities, LED power meters, and JVC's triple power protection system.

So if you're interested in getting more without paying more, call 800-221-7502 toll free for the location of your nearest JVC dealer (in N.Y. State 212-476-8300). Once you've heard the R-S33, you'll have no doubts about which receiver gives you the most for your money.



58-75 Queens Midtown Expressway, Maspeth, New York, 11378.

CIRCLE NO. 65 ON READER SERVICE CARD

"...an outstanding product on any absolute scale of measurement without regard to price." - STEREO REVIEW



Read more of what Stereo Review magazine had to say about the Yamaha $CR\-840$ receiver:

"The harmonic distortion of the CR-840 was so low that without the most advanced test instruments it would have been impossible to measure it."

When speaking of the OTS (Optimum Tuning System), an easy-to-use Yamaha feature that automatically locks in the exact center of the tuned channel—for the lowest possible distortion, Stereo Review said, "The muting and OTS systems operated flawlessly."

Among Yamaha's most significant features is the continuously variable loudness control. By using this control, the frequency balance and volume are adjusted simultaneously to compensate for the ear's insensitivity to high and low frequency sound at low volume settings. Thus, you can retain a natural-sounding balance regardless of listening level. As Stereo Review states, ``...another uncommon Yamaha feature."

And there's more. Like the REC OUT/INPUT SELECT feature. These separate controls allow you to record from one program source while listening to another program source. All without disturbing the recording process. Stereo Review's comment was, "... the tape-recording functions of the CR-840 are virtually independent of its receiving functions." One could not ask for greater flexibility.

In summing up their reaction to the CR-840, Stereo Review said, "Suffice it to say that they (Yamaha) make it possible for a

moderate-price receiver to provide performance that would have been unimaginable only a short time ago."

And the CR-840 is only one example in Yamaha's fine line of receivers. For instance, High Fidelity magazine's comment about the Yamaha CR-640 receiver: "From what we've seen, the Yamaha CR-640 is unique in its price range."

And Audio magazine has remarks on the Yamaha CR-2040 receiver: "Without a doubt, the Yamaha CR-2040 is the most intelligently engineered receiver that the company has yet produced, and that's no small feat, since Yamaha products have, over the last few years, shown a degree of sophistication, human engineering, and audio engineering expertise which has set them apart from run-of-the-mill receivers."

Now that you've listened to what the three leading audio



magazines had to say about Yamaha receivers, why not listen for yourself? Your Yamaha Audio Specialty Dealer is listed in the Yellow Pages.

To obtain the complete test report on each of these

receivers, write: Yamaha International Corp., Audio Division, P.O. Box 6600, Buena Park, CA 90622.

Ouotes excerpted from June 1979 issues of Stereo Review, High Fidelity and Audio magazines. All rights reserved, $\ensuremath{\mathsf{C}}$



CIRCLE NO. 70 ON READER SERVICE CARD



AL DI MEOLA: virtuosic

Now, however, with the release of a superb new double album for Columbia, the twenty-four-year-old Di Meola has come into his musical maturity, weaving an awesomely exciting tapestry of sound whose adept eclecticism defies category. It might still be called fusion music, but he has extended the genre's range by dealing more directly with the strains that feed this contemporary hybrid: elements of classical, popular, jazz, and Latin music are all held together through the strength of an overarching artistic concept.

Many of these selections will appeal immediately to Di Meola's long-standing fans, and others are likely to gain new ones for him. His gifts for fantasy and electronic effects infuse Alien Chase on Arabian Desert, described as an extraterrestrial being's initial impression of Earth. Similar fusion pyrotechnics are apparent on Dinner Music of the Gods and Splendido Sundance, a sequel to the Mediterranean Sundance on his "Elegant Gypsy" album. But he turns to the lushly romantic lyricism of Brazil (home of some of the world's greatest guitarists) for his composition Silent Story in Her Eyes, and he captures a spirit of urbane lightheartedness on Roller Jubilee.

Remembering how all too many instrumentalists sound when they try to sing, one might be prepared to wince at Di Meola's vocal debut on *I Can Tell*, but it's not all that bad. One of the highlights is *Isfahan*, a work composed by Chick Corea for classical guitar and featuring the Columbus Boychoir with strings. It summons up a feeling of mystic antiquity not easily forgotten.

Special guests on this outing are guitarist Les Paul, that pioneer of overdubbing years ago, who sits in (for what he says will be his last recording) on the evergreen Spanish Eyes. Then there is Chick Corea himself, whose influence is apparent on far more than the three tracks where he plays piano; Di Meola's percussive style, his affinity for Latin rhythms, his whole musical philosophy were developed during the years he spent with Return to Forever, the band that made fusion a mainstay of contemporary American music. Corea's keyboard here is brilliantly incisive, a quick summary of his contributions to a decade that shaped Di Meola. It is not too much, I think, to call Al Di Meola the Chick Corea of the guitar. As for the music, you may call it what you will, but call "Splendido Hotel" a simply splendid album. --- Phyl Garland

AL DI MEOLA: Splendido Hotel. Al Di Meola (electric and acoustic guitars, celeste, vocals); Philippe Saisse (keyboards, marimba); Chick Corea (acoustic piano); Robbie Gonzales (drums); Eddie Colon (percussion); Anthony Jackson (bass guitar); other musicians. Alien Chase on Arabian Desert; Silent Story in Her Eyes; Roller Jubilee; Two to Tango; Al Di's Dream Theme; Dinner Music of the Gods; Splendido Sundance; I Can Tell; Spanish Eyes; Isfahan; Bianca's Midnight Lullaby. COLUM-BIA C2X 36270 two discs \$9.98, © CAX 36270 \$9.98, © CTX 36270 \$9.98.

Two Symphonies by Bohuslav Martinů in Performances that Reprove Neglect

N 1976 and 1977 Václav Neumann and the Czech Philharmonic taped all six of Bohuslav Martinů's symphonies for Supraphon, an especially commendable enterprise since all six symphonies are eminently worthwhile, most of them haven't been available for years, and Nos. 1 and 2 had never been recorded before. The First Symphony was released here last year, on a disc filled out with Martinu's Inventions (Supraphon 🗆 4 10 2166); a final disc, comprising Symphonies Nos. 3, 4, and 5, should be turning up shortly. In the meantime we have a most attractive pairing of the Second Symphony, probably the most ingratiating of the six, with the one that brought the cycle to its brilliant conclusion four years before the composer's death. Listeners who have yet to acquaint themselves with Martinů's music could hardly ask for a happier introduction to it.

Martinů (1890-1959) did not be-

come a symphonist until he was in his fifties. He composed his first five symphonies during the years he spent in this country (1941-1946), and four of them were introduced by American orchestras. His last symphony, too, was composed for Charles Munch and the same orchestra that had given the premières of the First and Third, the Boston Symphony. It won the prize of the New York Music Critics Circle for the best work performed in New York City in 1955.

The Second Symphony, which preceded the Sixth by ten years, was described by Martinů as "calme et lyrique"; the work, he said, was his way of reacting to the Second World War with "serene ideas expressed in calm concept and order" rather than "any professional and technical expression of torture." As if in overt rejection of any oppressive



BOHUSLAV MARTINŮ: appealing

thought, the last two of the work's four movements are dancelike and rather jolly, though there is a citation of the most inflammatory phrase from the Marseillaise all but buried in the third Wartime movement. connotations aside, the Second Symphony is a solid delight, and the splendid performance can only make us wonder how so fine a work could have fallen into such thorough neglect since its Cleveland première thirty-seven years ago. The recording may eventually prove effective in correcting that situation; in the meantime it enables a larger audience than can fit into any hall to experience Martinů at his most appealing. One of the most welcome orchestral releases of the year. ----Richard Freed

MARTINŮ: Symphony No. 2; Symphony No. 6 (Fantaisies Symphoniques). Czech Philharmonic Orchestra, Václav Neumann cond. SUPRAPHON □ 4 10 2096 \$8.98 (from Qualiton Records, Ltd., 39-28 Crescent Street, Long Island City, N.Y. 11101).

Popular Discs and Tapes



Reviewed by CHRIS ALBERTSON • IRV COHN • NOEL COPPAGE • PHYL GARLAND PAUL KRESH • PETER REILLY • STEVE SIMELS • JOEL VANCE

RECORDING OF SPECIAL MERIT

Performance: Intriguing Recording: Very good

Joan Armatrading is a performer who resolutely and cheerfully keeps her audience at a distance. She refuses to divulge anything too personal about her life, offers few clues about the meanings of some of her more ambiguous lyrics, lives in seclusion, tours only occasionally, and records fairly regularly. She does not believe, on the available evidence, that her audience is entitled to anything more than her best efforts as a musician; her psyche is none of their business. Good for her!

The title cut of this, her latest album, celebrates her happiness in privacy. The minor-key melody keeps the listener off balance; like the lyrics, it is tantalizing but not revealing. Turn Out the Light and I Need You are formulaic ballads with bravura vocals. All the Way from America is another of those perplexing items where you can't

Explanation of symbols:

- B = eight-track stereo cartridge
- © = stereo cassette
- $\Box = quadraphonic disc$
- $\mathbf{O} = digital$ -master recording
- $\Phi = direct-to-disc$

Monophonic recordings are indicated by the symbol \circledast

The first listing is the one reviewed; other formats, if available, follow it. be sure whether Armatrading is writing fiction or autobiography, but the melody is quirky and arresting. The most bizarre song is Simon, the portrait of a jealous younger brother who wants to kill his womanizing sibling. When she's not coasting on automatic, Armatrading writes lyrics that are full of sly winks, oblique sexual references, hilarious coquetry, and down-to-earth mockery of herself, her listeners, and pop stardom itself. She is evidently having a fine time keeping everybody guessing about the relation between her intriguing music and her private life, and I must say it's a pleasure playing her game. JV.

AVERAGE WHITE BAND: Shine. Average White Band (vocals and instrumentals). Let's Go 'Round Again; Shine; Into the Night; Catch Me (Before I Have to Testify); Help Is on the Way; and four others. ARISTA AL 9523 \$8.98, @ AT8 9523 \$8.98, @ ATC 9523 \$8.98.

Performance: Thin Recording: Fat

Not that AWB (as their logo identifies them) ever had much in the way of originality, but what little of it they did possess when they first came on the scene has now been abandoned in an attempt to sound contemporary. The writing, vocals, arrangements, and playing here are all oh-so-professional-and about as lively as government statistics on Wyoming's soybean production for 1938. AWB flirts a bit with disco but never quite takes the plunge, remaining true to poetaster pop. To reassure themselves and their audience, this outing features a semi-jazz instrumental, Into the Night, a slight rehash of their old hit Pick Up the Pieces. It made me want to pick up the tone arm on my turntable and pick out another record to listen to. J.V.

MAX D. BARNES: Rough Around the Edges. Max D. Barnes (vocals); instrumental accompaniment. Mean Woman Blues; Patricia; Rough Around the Edges; Singer of Sad Songs; Rustin' Down; Only for You; and four others. OVATION OV-1749 \$7.98, (© OV8-1749 \$7.98, (© OVC-1749 \$7.98.)

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

The emergence of the singer-songwriter is a small trend in country music now, mainly because people primarily known as writers are making the conversion. Here Max Barnes joins Sonny Throckmorton, Rodney Crowell, and others in that endeavor, and the results are generally good, with reservations. Barnes writes with admirable simplicity, and that's the album's main strength. His voice is a sentimental, wobbly baritone that seems to owe a little bit to every bigname low-pitched voice in the field. Sometimes he's a bit vague about pitch, and sometimes the amalgamated baritone rumble seems arch, if not corny, and sometimes it's okay. It depends on the song. Probably that's how it will go; how much Barnes is heard on the juke box depends on how many of his songs catch. Mean Woman Blues, the title song, and Singer of Sad Songs are three that deserve a few spins. N.C.

JEFF BECK: There and Back. Jeff Beck (guitar); instrumental accompaniment. Star Cycle; Too Much to Lose; You Never Know; The Pump; and four others. EPIC FE 35684 \$8.98, @ FEA 35684 \$8.98, @ FET 35684 \$8.98.

Performance: Indulgent Recording: Ponderous

Jeff Beck is a brilliant, sloppy, indulgent, wayward, bold, and half-hearted guitarist all at once. There's no denying his talent and technical prowess, but he simply can't make up his mind what he wants to do. This outing is about equally divided between lyricism (in the poetic sense) and gobbledygook. When Beck wallows in excess—simply throwing his technique around—he is boring. When he has an idea for a real melodic line he abandons it after the first phrase and simply modulates his way through. All we get are flashes of his real, undeniable talent. It is frustrating to listen to a musician who will do anything except make a decision.

The album title suggests that Beck is in a fallow period. "I've been there and back" is a slang phrase used by musicians, soldiers, whores, and others to mean "I have experienced everything there is to experience, so nothing surprises me any more." Beck has, after all, been a practicing musician for almost twenty years, and a deservedly honored one, but it must be difficult for him to wake up in the morning with the dread thought that he has to go out and be as astonishing as he first was. There comes a time in a musician's life when he has to compete with himself, when he realizes that his original, instinctual approach may no longer be valid and he is no longer sure whether he is playing for the adventure of it or simply to maintain his reputation. It is an uncomfortable time, one in which musicians don't know what decisions to make, and the resultant music is likely to be ambiguous and amorphous, as Beck's is. JV

NATALIE COLE: Don't Look Back. Natalie Cole (vocals); instrumental accompaniment. Hold On; I'm Getting to Know You; Danger Up Ahead; Cole-Blooded; and five others. CAPITOL ST-12079 \$7.98, ⁽¹⁾ 8XT-12079 \$7.98, ⁽²⁾ 4XT-12079 \$7.98.

Performance: Off the tracks Recording: Good

Considering Natalie Cole's sensational debut on records several years ago, when she seemed to be one of the most vivid, exciting, and direct young MOR singers to emerge in a long time, the title "Don't Look Back" has a certain irony. She is by now so far off the track of what seemed to be her original direction that listening to this album is like watching the Orient Express pull into a siding at the Jersey City freight yards. I was tempted just to dismiss Cole's latest with a shrug until I reached the Stairway to the Stars track, which is plain superb. Her vibrant performance of that not particularly golden oldie is in her old style (straight-on), and midway there's a tribute to Ella Fitzgerald's scat singing that is so good, so stylish, so elegantly professional that I wanted to take back every mean thought I'd previously had. Unfortunately, things soon returned to dreary normal. P.R.

RECORDING OF SPECIAL MERIT

ALBERT COLLINS: Frostbite. Albert Collins (vocals, guitar); instrumental accompaniment. Blue Monday Hangover; Brick; Don't Go Reaching Across My Plate; and five others. ALLIGATOR AL 4719 \$7.98.

Performance: Excellent Recording: Very good

Albert Collins' vocal and guitar styles both owe a lot to Albert King, but Collins writes excellent lyrics and has a folksy sense of humor that's very winning. This is one of the strongest, most entertaining blues albums I've heard lately. If you think the blues is parochial music for buffs only, "Frostbite" will change your mind. J.V.

AL DI MEOLA: Splendido Hotel (see Best of the Month, page 80)

(Continued on page 88)

with some cutting dialogue originally delivered by Liza Brown and Ann Johnson on a 1929 Columbia side. Just why that number was cut from the record while such dull, out-of-context fare as *The Graveyard* was retained is hard to understand. But there is plenty here to enjoy, and if the voices are limited, there is no skimping on the old spirit. *One Mo' Time* succeeds where Linda Hopkins' *Me and Bessie* failed because Vernel Bagneris—who conceived and directed the production—obviously did his



Feet. Since October 1979, however, the Village Gate has featured a production that in the most delightful way combines jazz and theater: One Mo' Time, a juicy slice of black vaudeville as it was in the days of Bessie Smith.

One Mo' Time originated in New Orleans almost three years ago, but having made it all the way from there to the Gate, which qualifies as an off-Broadway theater, its producers have no intention of taking the show on to the Great White Way. That's a wise decision. I think, because the intimacy of a club is crucial to the show's success. It is remarkable that One Mo' Time works at all, for none of its four principal players has much talent for dancing, singing, or acting, the three skills the production mostly calls for. What saves the show is a combination of the material (a well-chosen repertoire of songs that made their way onto 78s in the era being portrayed), the band (which includes the legendary trumpeter Jabbo Smith and plays arrangements by Lars Edegran and Orange Kellin, Swedes who closely adhere to the genuine New Orleans style), and the marvelous comedic finesse of Topsy Chapman.

How does it all work on vinyl? Well for the most part, but you do miss Chapman's visual humor, and I think anyone who has seen the show will lament the absence of *Get On Out of Here*, a very funny number homework; he has truly captured the flavor of what went on over half a century ago in such theaters as the Lyric in New Orleans, the Koppin in Detroit, the Lafayette in New York, and the "81" in Birmingham.

Finally, it should be mentioned that the album was recorded live during actual performance. That is unusual for an originalcast set, but in this case essential, because vaudeville needs an audience, and the spirit that carries these performances could hardly have been conjured up in a soundproof studio. — Chris Albertson

ONE MO' TIME (Vernel Bagneris). Original-cast recording. Vernel Bagneris, Topsy Chapman, Thais Clark, Sylvia "Kuumba" Williams, John Stell, Jabbo Smith (vocals); New Orleans Blues Serenaders, Orange Kellin cond. Down in Honky Tonk Town; Kiss Me Sweet; Miss Jenny's Ball; Cake Walkin' Babies from Home; I've Got What It Takes; C. C. Rider; The Graveyard; He's Funny That Way: Kitchen Man; Wait Till You See My Baby Do the Charleston; Love; Louise: New Orleans Hop Scop Blues; Everybody Loves My Baby; You've Got the Right Key but the Wrong Keyhole; After You've Gone; Papa De Da Da; Muddy Water; There'll Be a Hot Time in the Old Town Tonight. WARNER BROS. HS 3454 \$8.98, @ W8 3454 \$8.98, @ W5 3454 \$8.98.



Remember when Ed Sullivan had him cut off at the hips?

Presley Preserved

MERICA, it has been observed, is the only country ever to go from barbarism to decadence without passing through civilization, and if one accepts that premise it becomes obvious that the late Elvis Presley was the quintessential American artist. In his youth, he rose from obscurity in a Horatio Alger story beyond anyone's wildest dreams; he went on to serve his country faithfully and patriotically, taming his wilder side and becoming a model citizen; and, in the end, he ate himself to death. And all the while he remained an utter enigma; perhaps no public person in our lifetime has ever maintained such a sphinx-like presence in our midst. No wonder critic Nick Tosches called him "a mystery that will never be solved," and no wonder so many writers, undaunted by the mythic weight of the man and his accomplishments, have attempted solutions.

RCA's mammoth new Presley anniversary retrospective (it's been twenty-five years since the King signed with Little Nipper) attempts a solution too, promising to be the definitive Elvis, but in the end it only muddies the waters further—we *still* don't know who Elvis was. That means, of course, that it's probably definitive after all. In any case, it's fittingly 90 per cent schlockola and packaged with enough reverence to contain a swatch from the Shroud of Turin. The set's bulk (eight records plus an elaborate booklet) is probably justifiable on the grounds that a lot of it is previously unreleased material, but in the end it has to be seen for what it is: another, larger commercial package like those released both before and after the singer's death. Whatever else Elvis was, he remains Big Business.

So what do we get? A lot of throwaway, frankly. One disc is devoted to alternate takes of ephemera from his movies (not particularly cosmic stuff, such as Follow That Dream and A Dog's Life), some of which allows us to hear El breaking up between vocals; another rehashes still-available live albums and documents his TV specials. And one entire side is devoted to a deadly dull speed-freak monologue in which Elvis attempts to discuss the pressures of celebrity. Then there are some singles (forgettable, with the exception of a gritty Hi-Heel Sneakers) that never made it onto LP, some reasonably affecting things done live at the piano, and finally a Vegas concert from 1975 that sounds like every other live show RCA released from 1969 on.

The first two records, however, almost justify purchase of this very expensive souvenir. Shows from Vegas in 1956 and Hawaii in 1961, though their sound is not of the best, nonetheless reveal that the pre-Beatles-era Presley really was as revolutionary and electrifying as contemporary accounts indicate; the idea of audiences rioting seems not at all farfetched when you hear some of this stuff. Elvis, with Bill, Scotty, D. J., and the rest, had a great, blistering rock-and-roll band, and if your only live impressions of Elvis come from the D. W. Griffith overkill of the Vegas years, this may come as a revelation. Would that these were videodiscs!

N the end, though, the set's successes and failings are mostly irrelevant; Elvis is such an icon that nothing I write or that RCA packages will have the slightest impact on his legend. Consider: a matter of hours after RCA let it be known that there was such a thing as a limited-edition, eight-record, \$69.95, twenty-fifth-anniversary Presley package available, they were so deluged with phone calls, telegrams, and what not else that they had to call a meeting to up the original pressing order of 250,000. Millions will probably buy the thing, and the question then is whether you want to blow a month's worth of lunch money to be one of them. Those who, like that Boston lady with the hats, already have their Elvis records will want to check the song list below carefully before deciding; latecomers will be able to play catch-up with a vengeance. In any case, Long Live the King.

-Steve Simels

ELVIS PRESLEY: Elvis Aron Presley. Elvis Presley (vocals, piano, guitar); other musicians. Heartbreak Hotel; Long Tall Sally; Blue Suede Shoes; Money Honey; An Elvis Monologue; Heartbreak Hotel; All Shook Up; A Fool Such As I; I Got a Woman; Love Me; Introductions; Such a Night; Reconsider Baby; I Need Your Love Tonight; That's All Right; Don't Be Cruel; One Night; Are You Lonesome Tonight?; It's Now or Never; Swing Down Sweet Chariot; Hound Dog; They Remind Me Too Much of You; Tonight Is So Right for Our Love; Follow That Dream; Wild in the Country; Datin'; Shoppin' Around; Can't Help Falling in Love; A Dog's Life, I'm Falling in Love Tonight; Thanks to the Rolling Sea; Jailhouse Rock; Suspicious Minds; Lawdy Miss Clawdy/Baby What You Want Me to Do; Blue Christmas; You Gave Me a Mountain; Welcome to My World; Trying to Get to You; I'll Remember You; My Way; Polk Salad Annie; You've Lost That Lovin' Feelin'; Sweet Caroline; Kentucky Rain; Are You Lonesome Tonight?; My Babe; In the Ghetto; An American Trilogy; Little Sister/Get Back; Yesterday; I'm Leavin'; The First Time Ever I Saw Your Face; Hi-Heel Sneakers; Softly, As I Leave You, Unchained Melody; Fool; Rags to Riches; It's Only Love; America the Beautiful; It's Still Here; I'll Take You Home Again Kathleen; Beyond the Reef; I Will Be True; Also Sprach Zarathustra; See See Rider; I Got a Woman/ Amen/I Got a Woman; Love Me; If You Love Me (Let Me Know); Love Me Tender; All Shook Up; Teddy Bear/Don't Be Cruel; Hound Dog, The Wonder of You; Burning Love: Dialog/Introductions/Johnny B. Goode; Introductions/Long Live Rock and Roll; T-R-O-U-B-L-E; Why Me Lord; How Great Thou Art; Let Me Be There; An American Trilogy; Funny How Time Slips Away; Little Darlin'; Mystery Train/Tiger Man; Can't Help Falling in Love. RCA 3699 \$69.95, © CPK8-3699 \$69.95.

ITS BEAUTY IS MORE THAN SKIN DEEP

Meet the Beogram[®] 3404...an intelligent, thoughtful and very well spoken turntable.

Like all Bang & Olufsen turntables, the 3404 effectively combines superior sound reproduction with simplified-not complicated-operation. That's the real beauty of the 3404.

That's why the controls are outside of the dust cover where they're easily accessible. And that's why just a light touch of the START button does everything. It determines if a record is on the platter, and if so, quickly sets the correct speed and lowers the stylus to the record.

Slam! Pound the shelf next to the 3404. Not a skip, not a jump...thanks to the rocksteady patented suspension system. Audible acoustic feedback disappears as a result.

A low inertia tonearm with a knife-edge bearing system eliminates audible distortion. The Bang & Olufsen MMC cartridge works in flawless harmony with the tonearm. The unique self-correcting electronic servo-drive is so precise that the need for a conventional strobe device is eliminated.

The Beogram 3404 even responds to remote control commands when used with the Beomaster 2400 receiver.

At Bang & Olufsen, good looks and brains run in the family. So discover the inner beauty of our full line of fine turntables at your local Bang & Olufsen Ba

Bang & Olufsen of America, Inc. 515 Busse Road Elk Grove Village, Illinois 60007 Attention: Sandy Reinquist

CIRCLE NO. 7 ON READER SERVICE CARD



E VEN the most jingoistic of us Ugly Americans must admit that we ought to know what's going on culturally in Canada, since it has already given us Gordon Lightfoot, Joni Mitchell, Leonard Cohen, Anne Murray, Burton Cummings, Robbie Robertson, Neil Young, and 95 per cent of our hockey players. But it's hard to find out much, our media working in the usual self-centered way, especially right now when America is enjoying a seizure of chauvinism and it's *our* hockey team that's certified as the world's champeen. In any case, Canada's latest musical emissary to the world, Dan Hill, brings to mind not answers but more questions.

Hill is still relatively obscure in the States (although many remember Sometimes When We Touch), but in Canada his first four albums went gold, gold, doubleplatinum, and platinum, respectively. His new one, and his first for Epic, "If Dreams Had Wings," will likely follow one of those suits. Yet it, like Hill himself, seems deliberately passé in U.S. stylistic terms. Hill seems to make and present his music with the old hippie-populist attitude. In the making of it he displays the same perhaps naïve faith in words we once had; he actually still writes lyrics about relationships, which even such a diehard as Joni Mitchell seems to have abandoned down here in America.

In short, Hill is so successful in Canada and yet such a departure from the kind of act that's currently successful here—where we scurry from shiny polyester to skinny ties and bird's-nest haircuts—that you wonder whether Canada is innocent or naïve or romantic . . . or perhaps sane. Or are we just more experienced and therefore wiser, and sadder, to the point where we realize the futility of doing away with the proscenium-arch mentality as well as the futility of words? I don't know what we realize subconsciously, but I do know that consciously a lot of us are still out to exploit a gimmick to turn a buck. Having your lead singer comport himself like a robot and your guitarist sound primitive may have started as honest attempts at expression, but take a little look around and you'll see they're only gimmicks now. Hill seems to be in a different world from all that, even if it is recognizable as one we lost or threw away.

Yet, if Hill were an American, he would be too young for his style. He's under thirty, and Americans under thirty, polls indicate, are about as far to the right as the baby boomers were to the left. Americans his age, as a group, don't go around in beards and long hair; in the primaries, according to the CBS poll, they preferred Carter to Kennedy. Again: whither Canada? In particular, whither Canadian youth? The Canadian magazine Saturday Night about a year ago took a poll of college students in Toronto, Dan Hill's home town, and the results seemed to indicate the kids were as liberal as American college kids used to be. Teddy Kennedy and Jane Fonda were among their most admired figures, they had a deep mistrust of big business, and so on.

Musically, this may mean that there isn't so much of a big-brother/little-brother gap in Canadian tastes, maybe not as much polarization in general. At any rate, Hill's songs in this album are slightly less personal than in the past, but no less emotional and no less involved lyrically. All but two run longer than four minutes; not all of them are wordy, but you remember the album as being wordy. As in the past, I think Hill stretches too little melody over too much meter a few times and that too many of his melodic turns sound alike. But I do keep coming to phrases that make me pause and say, "Yeah, that's how it is." And, as usual, there is one really good song, You Get a Little Harder, which gets beyond "relationships" and on toward the human condition.

HERE are those—you sometimes hear them, when a new fad is about, saying, "This, too, shall pass"-who contend that feelings are what music is basically about, that all music is necessarily romantic in the way Hill's and other Canadians' music seems to be romantic, that singing is not exactly a realistic act to commit in the first place. Yet we also know pop music is a conscious or unconscious comment upon its own environment, so the question of how Dan Hill's music came to have such an environment looms, for the moment, larger than the music itself. Probably because it's an environment many of us would like to capture-or recapture-for ourselves.

-Noel Coppage

DAN HILL: If Dreams Had Wings. Dan Hill (vocals, guitar); Larry Knechtel (piano); Bob Mann (guitar); Tom Szczesniak (bass); Larrie Londin (drums); other musicians. Path of Least Resistance; I Still Reach for You; Ghost; Island; Perfect Man; My Love for You; More Than Just a Clever Game; Unloved People; You Get a Little Harder; If Dreams Had Wings. EPIC FE 35441 \$8.98, @ FEA 35441 \$8.98, @ FET 35441 \$8.98. BOB DYLAN: Saved. Bob Dylan (vocals, guitar, harmonica); vocal and instrumental accompaniment. A Satisfied Mind; Saved; Solid Rock; Pressing On; and five others. COLUMBIA FC 36553 \$8.98, © FCA 36553 \$8.98.

Performance: Fundamentalist babble Recording: Good

I can understand that Dylan followers are disappointed with his Born Again phase. but I wonder why they are so angry about it. Could some kind of association be taking place and their feelings about other twiceborn celebrities be coming into play? Or do they feel that Dylan has abrogated some kind of responsibility? Whatever, he has managed to stir people up once again; you have to give him that. It is even more puzzling to me that a person with a history of being a recluse should take up with fundamentalism, since loners with high IQs like Dylan's usually opt for something a little more esoteric. "I've tried everything else," he tells audiences, but he can't mean everything. If it's a comfort to him, it's still all right with me, but it sure does play hell, pardon the expression, with his songwriting. If you've been to a few revival meetings, you can forget about the lyrics in this one; you've heard them. They may be heartfelt but they are the same babble of simplistic platitudes with the same evangelistic tone you get, all too often, from the reformed anything-sinner, alcoholic, gambler, you name it. A couple of songs on the second side, Pressing On and Saving Grace, do really cook, as they have nice tunes and are played with fervor and taste, but the lyrics are still in the sermonizing stage.

Dylan is almost certain to grow out of this, if only because it is so intellectually vacuous and boring. To deny that you have a mind is just as unacceptable in the long run as denying that you have a soul. N.C.

THE ENGLISH BEAT: I Just Can't Stop It. The English Beat (vocals and instrumentals). Mirror in the Bathroom; Hands Off . . . She's Mine; Two Swords; Twist and Crawl; Tears of a Clown; Rough Rider; and eight others. SIRE SRK 6091 \$7.98, @ M5S 6091 \$7.98.

Performance: **Eerie** Recording: **Fine**

The English Beat, in England, is simply the Beat, but for American consumption the group is so identified to avoid confusion with the power-pop band of the same name from Los Angeles (which tours England as "the American Beat" for the same reason). In any case, musically there's no way anybody could mistake the two, since the EBs are the latest product of the British ska revival. To my ears ska (like rockabilly, heavy metal, or mainstream punk) has such narrow stylistic limits that it quickly palls, but the EBs, at least so far, have something identifiably their own: a deadpan beatniky cool and a believable obsession with paranoia and dark nights of the soul. They play like a drugged-out Fifties West Coast jazz combo jamming late at night in a Jamaican loony bin, so it's not surprising that Smokey Robinson's Tears of a Clown suits them. Weird, but compelling. 2.2.

(Continued on page 90)

AKAI QUICK-REVERSE. FOR PEOPLE WHO HATE TO INTERRUPT A GREAT PERFORMANCE.



Just pop in the cassette and spend the rest of the night making beautiful music together.

AKAI proudly announces the GX-F60R. Another superb example of quality in reverse.

It begins with the finest record/playback head in the industry. AKAI's glass and crystal ferrite Twin Field Super GX Head. Guaranteed for over 17 years of virtually wear-free performance on any tape formulation – low-noise through metal.

You'll also find a tape transport cesign that's sheer engineering wizardry.

And a two-motor system to lend even more stability.

All this, combined with specially engineered channeled tape guides, maximize tapeto-head contact in both directions for both record and playback.

Wow and flutter is



read on.

tape selector.

reduced to less than 0.04% WRMS. Distortion is less than 0.7% (1003 Hz "0" VU).

Now, add AKAI's second stroke of genius, our Quick-Reversing mechanism.

Integrated into one of the two tape guides, is an infrared device that detects the tape leader and triggers the reverse.

The result – virtually no interrupt on in place of the usual **1**2 to 14 seconds of silence



The magic of quick-reverse.

between sides on conventional decks. And just in case you thought we neglected the rest of the GX-F60R's features in search of the perfect trar sport system,

> You'll also find full-logic solenoid controls, two-color fluorescent VU/peak bar meters, Dolby; timer record/playback and remote control capabilities.

Plus a handsomely designed hydraulically-dampened panel that artfully conceals a full host of controls.

All in all, the finest reversing cassette deck AKAI h s ever built.

And guaranteed to leave you with a lot more than time on your hands.

For much more information on the

GX-F60R – or our more economicallyminded CS-M40R, also metal-capable with Quick Reverse – write AKAI, P.O. Box 5010, Compton, California 90224.



The GX-F60R, our new Auto-Reverse, Quick-Reverse expert.



Milntosh

"A Technological Masterpiece..."



McIntosh C 32

"More Than a Preamplifier"

McIntosh has received peerless acclaim from prominent product testing laboratories and outstanding international recognition! You can learn why the "more than a preamplifier" C 32 has been selected for these unique honors.

Send us your name and address and we'll send you the complete product reviews and data on all McIntosh products, copies of the international awards, and a North American FM directory. You will understand why McIntosh product research and development always has the appearance and technological look to the future.

Keep up to date. Send now - - -

McIntosh Laboratory Inc. Box 96 East Side Station Binghamton, NY 13904	
Name	
Address	
CityState	_Zip

If you are in a hurry for your catalog please send the coupon to McIntosh. For non-rush service send the **Reader Service Card** to the magazine.

CIRCLE NO. 34 ON READER SERVICE CARD



THE dog ate my earphones, so I can't tell you how the remastering of the Doobie Brothers' "The Captain and Me" sounds with no air space between it and one's head, but you should be able to hear the difference through a good set of speakers anyway. What has happened to this vintage (1973) album, one of the Doobies' best, is that Nautilus took the master tape and ran it and the master cutter at half speed. I have racked my brain for a reason this should improve the sound and have concluded the question is too big for me—we'll have to ask Larry Klein—but it does work.

The album was pretty well engineered to begin with, but in comparing a new copy of the conventionally mastered album with the Nautilus version I noticed a lot of little things that collectively make a difference. I was more aware of the bass with the Nautilus disc, for one thing; it is not a heavy-bass album, but the half-speed process seems to make the bass cleaner and more transparent, most evidently when the bass *is* big, as it is at the start of the electric section of the long instrumental ending of *Clear as the Driven Snow*, an inner-groove cut next to the label. And that cut also helps show how the Nautilus process better meets the demanding subtleties of reproducing acoustic guitars.

The other big improvement has to do with the drums and other percussion gadgets-a good thing, since the Doobies bathed this album in cascading rhythms. The drums and congas and so on seem to have more body and a better sense of space around them. The album had excellent stereo imaging before, but these and other subtle improvements, including a slight increase in dynamic range, enhance even that by a small but detectable amount. You can hear the difference with mediocre or better ears and reasonably good equipment; whether you want to pay the difference in price depends on how much you value (and/ or can afford) these sexy sonic subtleties.

-Noel Coppage

THE DOOBIE BROTHERS: The Captain and Me. The Doobie Brothers (vocals and instrumentals); other musicians. Natural Thing; Slow Train Runnin'; China Grove; Dark Eyed Cajun Woman; Ukiah; Without You; South City Midnight Lady; Busted Down Around O'Connelly Corners; The Captain and Me; Clear as the Driven Snow. NAUTILUS NR5 \$14.95.

PETER GABRIEL. Peter Gabriel (vocals); instrumental accompaniment. Intruder; No Self Control; Start; I Don't Remember; And Through the Wire; and five others. MERCURY SRM-1-3848 \$7.98, ⁽¹⁾ MC8-1-3848 \$7.98, ⁽²⁾ MCR4-1-3848 \$7.98.

Performance: (Visi)gothic Recording: Good

If Peter Gabriel were a movie director, he'd specialize in horror pictures. He has a better voice than either David Bowie or Alice Cooper, and it's a shame they got there first . . . although Gabriel's "there" isn't exactly the same place. This album sounds superficially like early Genesis, of which he was the lead singer, and suggests he was more influential in that group's start than I had thought. At any rate, Gabriel sings the mind bent and the environment scary. At heart, though, like Bowie and Cooper, he is more theatrical than musical. His songs, for all their pomp and dark posturing, make an awkward, eighth-grade-level use of the English language, and his melodies don't have much body under all the neo-Victorian dressing. Just about everything here but Gabriel's high-gloss vocals seems more than a little heavy-handed. N.C.

JUSTIN HAYWARD: Night Flight. Justin Hayward (vocals); instrumental accompaniment. Night Flight; Maybe It's Just Love; Nearer to You; Suitcase; and six others. DERAM DRL-4801 \$7.98, ^(a) DR8-1-4801 \$7.98, ^(a) DCR4-1-4801 \$7.98.

Performance: In a Moody mode Recording: Very good

Justin Hayward's was the Moody Blues singing voice we remember best. Most of (Continued on page 94)

HOW WOULD YOU LIKE 70 WATT PERFORMANCE AT A 35 WATT PRICE?

YO<mark>U</mark> GOT IT.

Hachig

HERE COME THE HITACHI TURBOS!

The Hitachi Class G Turbo-Power Receivers have changed the rules about what you have to pay for power.

They're lean, mean machines that work the same way those automotive turbochargers work: Energy efficient on the straightaways. Superpower under stress. Just as the car's turbocharger gives the engine an extra gulp then it needs it, the Hitachi os click in when they see a l peak and double their ht before your ears.

> Bipolator Trans-or

When it needs it, the Hitachi Turbos click in when they see a musical peak and double their power right before your ears. (Bye bye, clipping distortion. Hello, dynamic range.) That's only half the Turbo story. The other half's in your wallet. You don't have to buy a 70 watt muscle box. Buy the Hitachi 35 watt SR6010 Turbo and keep the change. (35 minimum RMS watts per channel into 8 ohms frcm 20Hz to 20kHz with no more than 0.04% total harmonic

Stateche Anter State

SPEAK



WENT to see Waylon Jennings one time when he and Jessi Colter were living in a large rented house south of Nashville. There was a lot of terrorism and hostagetaking going on then, and he was worried about the prospect of somebody kidnaping his kids, his manager told me. He wouldn't let anyone photograph the house or divulge its location. However, parked at the edge of the yard, out by the road, was this Cadillac with one of those special gold-colored grilles and a license plate that said WAYLON.

Well, every one of us is a mess of contradictions. You could extrapolate some symbolism from this little vignette and speculate that Waylon is similarly contradictory, or ambiguous, about fame and privacy in general. And there would probably be some truth in it. If there hadn't already been an Elvis Presley, it isn't farfetched to imagine Waylon having become a similar kind of figure. He has the vocal equipment, and I think he has the charisma, and he is comfortable in rock as long as it is a little bit countrified, a requirement Elvis (more or less) tacitly accommodated too. But that territory was pre-empted, and Waylon came up to the big time as a sort of secondfiddle figure (bass player) for Buddy Holly in his brief post-Crickets period. Lately he has seemed content to behave, as somebody said, like a junior partner in the so-called Outlaws. There are some who believe Waylon still hasn't made the commercial or artistic splash he could make because he doesn't have the killer instinct-which in this case would not mean polishing off all opponents so much as vaulting the final distance to the top and leaving them in the dust. This view is, of course, an extension of the ambiguous-about-fame idea.

There may be some truth in it. But the vignette we started with also parallels the differences between the apparent Waylon, an arbitrary mix of macho and hippie, and the Waylon who comes out in a quiet chat once he starts to trust you a bit. He is a sensitive, intelligent, inquisitive man, his self-education having put him somewhere between the working class, where his roots are and where his early music mostly wound up, and the educated people who talk about principles and concepts and other abstractions rather than about guitars and pick-up trucks. Waylon has done a lot of thinking about how the good-old-boy environment shapes the psyche and what can be done about straightening out some of the resulting kinks.

His new RCA album, "Music Man," like many of his albums, reflects this in-between positioning Waylon has known for so long. For—I know from experience—once you grow up in the rural South, you can never forget that that's at least part of who and what you still are. Yet if you've experienced anything like a decent sampling of the rest of the world you truly can't go home again. It's still *innocent* back there, no longer your world.

MUSIC MAN" combines an acknowledgment of his roots-the Johnny and Jack song What About You, Ernest Tubb's Waltz Across Texas---with the kind of stuff his mind leads him to now, such as Jimmy Buffett's He Went to Paris and J. J. Cale's Clyde (in a non-verbal way) and the Steely Dan pop song Do It Again. He wrote two of the songs himself, about par for the course. (Jennings is not a prolific songwriter, but, given his interpretive powers as a singer, who would want him to be?) Both of them-It's Alright and Theme from the Dukes of Hazzard (would that the show were as good as the song)-have a sly, puton, tongue-in-cheek kind of humor about them, as has most of his writing over the last few years, going back to Waymore's Blues in "Dreamin' My Dreams." Earlier, though, he used to write "straight" hardcountry songs like I Think It's Time She Learned. Here he chooses one, Harlan Howard's blues-based Nashville Wimmin, that edges toward the same kind of loose whimsey his newer songs have.

Another element in his interests-and in his albums, of course-is interpretation. A lot of his albums have a few reasonably familiar songs that aren't likely to make another commercial run at this time; he just wants you to hear how he does them. He invariably does them well, and sometimeshis cover of Johnny Cash's I Walk the Line is a good recent example-he remakes them, revealing qualities dormant in them all these months or years. The ones in "Music Man" (Kenny Rogers' Sweet Music Man and Colter's Storms Never Last) don't need rewriting, so they don't get it; Jennings' bigger, mellower voice caressing each note is the attraction.

VERALL, while the album could use more profile in places, it's pretty satisfying and has no major weaknesses. There is a small weakness in the dragged-out ending of Waltz Across Texas, with Jennings indulging himself a bit on the banjo, and the programming makes the start of the album suggest it's going to be bluesier than it really is. Such trivia mean only that it wouldn't be ideal as your first Waylon album; as an umpteenth one, it works fine, amplifying some of what we think we know and some of what we know we feel about the man. Which is what it seems designed to do, rather than, say, vault him the rest of the way to the top. -Noel Coppage

WAYLON JENNINGS: Music Man. Waylon Jennings (vocals, guitar); Richie Albright (drums); Jerry Reed (guitar); Ralph Mooney (steel, dobro); Jerry Bridges (bass); other musicians. Clyde; It's Alright; Theme from the Dukes of Hazzard; Nashville Wimmin; Do It Again; Sweet Music Man; Storms Never Last; He Went to Paris; What About You; Waltz Across Texas. RCA AHL1-3602 \$7.98, @ AHS1-3602 \$7.98, © AHK1-3602 \$7.98.



fact: this small record collection represents a \$1,000 investment

It's true—the largest investment in almost any hi-fi system is frequently the cost of the records played on it...and just as true that a badly worn

phono stylus tip may ruin a valuable (or irreplaceable) record in just a single playing.

With the rising cost of new phonograph records—and the difficulty of replacing treasured, older favorites—it's the worst kind of false economy to risk damaging them with a worn stylus.

check your stylus (needle) at least once a year

Even a precision crafted diamond stylus tip will eventually become worn, and a worn tip will degrade your system's sound quality. Your Shure dealer can inspect your stylus, and, if necessary, replace it with a Genuine Shure stylus. It's the least expensive insurance for your valuable record collection.

Always insist on a Genuine Shure replacement stylus. Look for the name "Shure" on the stylus grip.

replacing your Shure stylus takes seconds... And requires no tools

bn 00



A. Grasp the stylus grip between thumb and forefinger. B. Gently withdraw the stylus assembly from cartridge.

C. Push the new stylus into position in the cartridge until the stylus grip touches the cartridge body.

That s all there is to it, and your Shure cartridge is now back to its original specifications!



Shure Brothers Inc., 222 Hartrey Ave., Evanston, IL 60204, In Canada: A. C. Simmonds & Sons Limited Outside the U.S. or Canada, write to Shure Brothers Inc., Attn: Dept. J6 for information on your local Shure distributor. Manufacturers of high fidelity components, microphones, sound systems and related circuitry. CIRCLE NO. 50 ON READER SERVICE CARD



EMMYLOU HARRIS' latest, "Roses in the Snow" (Warner Bros.), is a bluegrass album and a curiosity. Although her voice sounds as lovely and healthy as ever, Harris has downplayed her part in the album, bringing in a plethora of guest stars, harmony singers, and duet partners—to the point where, on back-to-back cuts, all *she* does is sing harmony. More curious still (when you try to fit this into the pattern of her other albums) is the stylistic direction she's taken. If she and her producer-sideman-husband Brian Ahern have a master plan, or answers in the back of some book, I'd like a peek.

First she made a string of albums that could be taken as both country and pop. This seemed fitting for a singer with a nonprovincial world view and a genuine interest in a provincial music (country). She seemed on a mission similar to that of her late friend Gram Parsons: getting country across to a non-provincial audience with its provincial ambiance intact. The approach was working aesthetically; it was producing quality albums. But the provincial country audience (and radio stations) appreciated those albums more than did the outsiders at whom they were largely aimed. Then, with "Blue Kentucky Girl," a collection of romantic old-timey-sounding country songs, Harris seemed to step off the fence right into the province. Now "Roses in the Snow" appears to have her striking even more deeply into it-all the way into an enclave up in the hills, in a sense. Aficionados of bluegrass consider bluegrass and country two different things. From hanging out a bit in such an enclave myself, I'd say there's a touch of a "more isolated than thou" attitude to it. Country is seen as a buffer between bluegrass and the outside world, and therefore country is seen as more likely to be tainted by the outside world--which, remember, is where we all thought Emmylou came from in the first place.

So naturally I'd give a pretty (as they say in bluegrass enclaves) to know what she and Ahern are up to. Is she going native? Going whole hog with the audience that seems to like her the most? I don't see how that could work, as you can't be provincial after you've (figuratively or literally) seen Paree. It's like innocence; when it's gone, it's gone for good. Or is this a matter of pushing the mission a little harder? Is this record also aimed beyond the provinces? Aside from guitarist Tony Rice, the musicians aren't particularly known for the bluegrass company they keep, being the nucleus of Harris' own Hot Band, and the decision this represents may be in part an attempt to bridge the two worlds of her music and mission. Or it simply may have been in the interest of freshness and the album a one-shot sort of project. It certainly works as a vehicle to make you wonder just a little what she'll do next

It also works as something to listen to now, although not as well as it could. I don't mind the guest stars: Johnny Cash, Linda Ronstadt, the Whites, and Dolly Parton singing harmony on various tunes and Willie Nelson taking a guitar break. Ricky Skaggs, Harris' more-or-less-regular fiddle player, does a fine job in the vocal duets, although the more of these people you hear, of course (and you hear a lot of them), the less you can hear of the ostensible star, Emmylou Harris. More bothersome is the odd collection of songs. The Boxer doesn't do much for the rest of the program, and the bluegrass arrangement doesn't do much for The Boxer. Green Pastures has a hitch in its melody that calls undue attention to itself; something just as quaint and more charming could have been found for that slot. And neither is Darkest Hour Is Just Before Dawn the strongest representation of bluegrass stalwart Ralph Stanley.

STILL, of course, this is a pretty good album. I don't think Emmylou Harris could make a bad one. The picking is fresh, and clear and clean and timely, and the vocals, while not quite as inventive as Harris' vocals can be-bluegrass, after all, doesn't give one much room-are the best some of these songs ever had. I have the feeling she stepped into the project and then backed off a bit, letting more and more other voices and sounds be heard, possibly because of the nature of the songs. The album gives me mixed readings on whether she's enjoying this trek back into the hills. My guess is she'll now drift back toward the outside world again in any case. I hope so. She's needed there. -Noel Coppage

EMMYLOU HARRIS: Roses in the Snow. Emmylou Harris (vocals, guitar); Ricky Skaggs (vocals, fiddle, guitar); Albert Lee (mandolin, guitar); Emory Gordy (bass); Tony Rice (guitar); Brian Ahern (guitar); other musicians. Roses in the Snow; Wayfaring Stranger; Green Pastures; The Boxer; Darkest Hour Is Just Before Dawn; I'll Go Stepping Too; You're Learning; Jordan; Miss the Mississippi; Gold Watch and Chain. WARNER BROS. BSK 3422 \$7.98, @ M8 3422 \$7.98, @ M5 3422 \$7.98.

the Moodies' grandiose questions (what's it all about, etc.) were sung by Hayward. I still find his voice quietly distinctive and attractive, and here the questions and palaver have been scaled down to human proportions and the songs, half of them written by Hayward, are consistently unpreposterous and pleasant. But the way they're done suggests Hayward isn't terribly adventurous about stretching out, growing, trying new things, that sort of stuff. Instead, he seems to want to re-create the Moody Blues. Mantovani with teeth, Joel Vance once called that sound. I rather liked it, on occasion, ten years ago when the context was different. Now Hayward's old Moodies sound revisited suggests stagnation-or perhaps, if you're into Zen, the sound of a dead horse being beaten. N.C.

RECORDING OF SPECIAL MERIT

Performance: Lusty Recording: Good

H-e-r-e-'s Millie!, back with a delightfully bad-mouthed message "For Men Only," or so the album says, though it's the ladies who'll probably get the biggest kick from her main rap here, which leads into Kenny Loggins' This Is It. She starts with a sympathetic tone, commiserating with a poor guy who's having a hard time because he's out of a job and his woman has to work. Then, when he's all softened up, she turns around and attacks, letting him have it with both fists! For all that, she does far more singing than talking here, and I miss her fresh mouth on the second side. Still, it's always a joy to hear her belt out a number in her heady, blues-derived style. The knockout here is her own composition Despair, with other choice tracks being This Is It and If That Don't Turn You On. P.G.

RECORDING OF SPECIAL MERIT

AL JARREAU: This Time. Al Jarreau (vocals); instrumental accompaniment. Never Givin' Up; Gimme What You Got; This Time; Your Sweet Love; Alonzo; and four others. WARNER BROS. BSK 3434 \$7.98, M8 3434 \$7.98, M5 3434 \$7.98.

Al Jarreau has become known largely for his remarkable ability to duplicate vocally the sounds of musical instruments (he has been called the man with a whole orchestra in his throat), but he minimizes his reliance on these special effects this time out, nevertheless achieving equally gratifying results. Never Givin' Up and Gimme What You Got are marked by swift-paced, rhythmical cadences, the sort of songs that hug the ear immediately and make you want to hear them again. Jarreau uses fuller tones on these than he has in the past, sounding at times like a muscular Johnny Mathis.

This would not be a true Al Jarreau album if there were no touches of experimentation, and they are found here in *Alonzo*, a weirdly ruminative but appealing soundpoem with an elusive message. On (*I Can Recall*) Spain, comparable to the best of his previous work, he makes his voice an instrument executing some almost impossibly difficult melodic lines, weaving his own lyrics skillfully through them. Jarreau's technical assurance and vocal dexterity here are awe inspiring. "This Time" is a cornucopia of musical pleasures with enough substance to ensure fresh discoveries even after hours of listening. *P.G.*

RECORDING OF SPECIAL MERIT

ELTON JOHN: 21 at 33. Elton John (vocals, piano); vocal and instrumental accompaniment. Chasing the Crown; Little Jeannie; Sartorial Eloquence; White Lady White Powder; Dear God; and four others. MCA MCA-5121 \$8.98, [®] MCAT-5121 \$8.98, [©] MCAC-5121 \$8.98.

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

Elton John wrote most of these songs during a restorative stay in Grasse, a village in the South of France where he apparently spent his free time pondering the imponderable and scrutinizing the inscrutable, at least to judge from two of the cuts here, *Chasing the Crown* and *Dear God*. The latter is a real biggie, with such luminaries as Bruce Johnson, Toni Tennille, and Peter Noone doing back-up vocals and Elton himself singing the lead with enough fervor to ignite Satan's red support hose. But Elton hasn't gone all goody-goody on us: *White Lady White Powder* is a steamy paean to you know what.

The three least successful entries in this fun album-Take Me Back, Little Jeannie, and Sartorial Eloquence-show Elton with nothing really to say yet saying it pretty well anyway. They're carried by his innate talent as an entertainer-and it's been clear for a long time just how big that talent is. His zany but meticulous musicianship, high-spirited style, and ability to give a totally involved and involving performance are unique, as much in evidence now as when he first burst onto the charts. The production here has the same kind of momentum as his performances, with a fine, freewheeling sound to it that seems to suggest spontaneity no matter how many overdubs were used. "21 at 33" is another triumph for Elton John. P.R.

RECORDING OF SPECIAL MERIT

CHAKA KHAN: Naughty. Chaka Khan (vocals); vocal and instrumental accompaniment. Clouds; Get Ready, Get Set; Move Me No Mountain; Nothing's Gonna Take You Away; So Naughty; and five others. WARNER BROS. BSK 3385 \$7.98, M8 3385 \$7.98, M5 3385 \$7.98.

Performance: Spectacular! Recording: Excellent

Chaka Khan must have seven lungs—at least she sings as though she does. I've never before heard such power as she projects on her sonically spectacular new album. Indeed, after listening to "Naughty," I wonder how she kept from overwhelming her previous back-up group, Rufus, instruments and all, during her long tenure with them. Yet power and magnificence of delivery are only two of the elements that lift her second solo album into the "very special" category. A masterly production by Arif Mardin, it features finely wrought arrangements that are played by musicians fully up to them, including Leon Pendarvis, Richard Tee, Phil Upchurch, Jeff Mironov, and Randy Brecker, with Cissy Houston shouting out background vocals as part of an apparent cast of thousands. The bass lines are the best I've heard on a pop album in months.

The songs were obviously tailored to showcase Khan's penetrating voice, but they are sufficiently varied also to display her softer side, as on the lovely *Move Me* No Mountain and Papillon (a.k.a Hot Butterfly), a lilting little sliver of a song that makes you want to sing along. The opener, Ashford and Simpson's Clouds, blasts off like a spacecraft bound for the other side of Pluto and reminds us all of the extraordinary heights this songwriting team is capable of reaching. These are only some of the highlights; the album pulsates with vigor, and it should establish Chaka Khan as one of the top singers of the year. P.G.

QUEEN: The Game. Queen (vocals and instrumentals). Play the Game; Dragon Attack; Another One Bites the Dust; Need

⁽Continued on page 97)



As advanced as our turntables!

The Philips AH 380, with four individual safety circuits, guards your entire system against unforeseen power hazards. A current limiter prevents excessive power loading. Thermal switching guards against abnormal temperature increases. The d.c. protection circuit isolates speakers from harmful d.c. leakage. And a selfchecking LED monitors correct operation of all safety circuits.

The AH 380 also offers virtually distortion-free power (100 Watts/ Channel minimum RMS into 8 ohms, from 20 Hz to 20 kHz with no more than 0.05% THD). That's sound performance! And you'll find it in every Philips component. Audition our full line today at finer audio dealers.

For further information, write Philips, Dept. 803, P.O. Box 6960, Knoxville, TN 37914.

PHILIPS HIGH FIDELITY LABORATORIES, LTD.

© 1980. Philips High Fidelity Laboratories, Ltd.

CIRCLE NO. 41 ON READER SERVICE CARD



AN a middle-aged nursing teacher from Middletown, Connecticut, find happiness by recording ten fairly obscure Tommy Wolf songs with a local trio for a minor label that has been dormant since the mid-Sixties? If that nursing teacher happens to be named Bobbi Rogers, the answer, obviously, is a startling and resounding "Yes!" A registered nurse, Miss Rogers also sings at a piano bar, mostly on weekends, but "Tommy Wolf Can Really Hang You Up the Most," the superb album with which she belatedly steps out of Middletown, could easily offer her the option of expanding that schedule as well as her sphere of musical activity.

What we are talking about is not the sultry come-hither singing style shaped to perfection by Sarah Vaughan, but rather the intimate, slightly whimsical, and decidedly white style designed to go with martinis and basic black in the Fifties. It's a jazzoriented, flexible way of singing that hugs the upper register just below the altitudes staked out by Helen Kane and Rose Murphy. Blossom Dearie seems to have graduated from that school, and I think the late and very wonderful Beverly Kenney might well have been at the top of the class. Like Miss Kenney, Bobbi Rogers pays close attention to her material and shows a healthy respect for it. She has a knack for unfolding intricately woven lyrics and laying them out, displaying them, in a way that preserves their often rather fragile sophistication. Yet her style is natural, never mannered. "Tommy Wolf Can Really Hang You Up the Most" is a double discovery, for it not only reveals the talent of Bobbi Rogers but also brings to light the almost equally hidden assets of songwriter Tommy Wolf. Wolf and lyricist Fran Landesman—who collaborated with him on all but two of the songs in this album—had only one bona fide hit, Spring Can Really Hang You Up the Most, but it is obvious from this collection that their united talent was vastly greater than their commercial success up to now would seem to indicate.

Miss Rogers owes her recording debut to Mort Fega, a dedicated former New York jazz disc jockey who with this release reactivates his Focus label (on which he previously preserved outstanding performances by Earl Hines, Carmen McRae, Bob Dorough, and Chuck Wayne). However, the debt to Fega is not Miss Rogers' alone; we all owe him our gratitude for bringing into focus (!) a delightful singer and some of the most memorable songs this side of Alec Wilder. Incidentally, composer Wolf, who died only a few months before the album was made, could come up with some pretty good lyrics himself, as we hear on his own I've Never Been Anything and Victor Feldman's A Face Like Yours, but mostly he wrote music-challenging music, for his are not always the easiest songs to sing. Bobbi Rogers meets that challenge head on, breezing through the difficult program with the sympathetic piano accompaniment of Chick Cicchetti, who is also responsible for writing the arrangements. Mr. Cicchetti, who has worked with the Hartford Symphony for several years, is also stepping out of the Middletown orbit, having recently been made musical director for the international tenor heart-throb Sergio Franchi.

F there is any justice in this music world, Bobbi Rogers will be heard from again and again, and these and more of the late Tommy Wolf's songs will find their way into the repertoires of other singers with the skill and perception to handle them as well as they are handled here. And while we're at the wishing well, let us hope—with admitted selfishness—that someone will have the good sense to return Mort Fega to the jazzstarved New York airwaves. Better still, let's hear his love and enthusiasm for jazz on Public Radio's national hookup.

. —Chris Albertson

BOBBI ROGERS: Tommy Wolf Can Really Hang You Up the Most. Bobbi Rogers (vocals); Chick Cicchetti (piano); Ronnie Bedford (drums); Russ Elliott (bass). I've Never Been Anything; Say Cheese; You Smell So Good: A Face Like Yours; Spring Can Really Hang You Up the Most; There Are Days When I Don't Think of You At All; I'm Alright 'Til You Touch Me; It's Nice Weather for Ducks; Apples on the Lilac Tree; It Isn't So Good It Couldn't Get Better. FocUs 337 \$8.98 (from Focus Productions, P.O. Box 17311, West Hartford, Conn. 06117; add \$1 for overseas orders). Your Loving Tonight; Rock It (Prime Jive); and five others. ELEKTRA 5E-513 \$7.98, (1) 5T8-513 \$7.98, (2) 5C5-513 \$7.98.

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

This is, of course, utter junk, but it's interesting junk on a couple of levels. The big news is that the group has finally tipped their hand about their sexual orientation. They've played a "maybe yes, maybe no" game since their career began at the height of glitter hysteria, but this time they've practically spelled it out: the cover photo has the boys decked out in short hair and leather, and Freddie Mercury especially looks like he's auditioning for the title role in Christopher Street Proctologist. The joke is that their audience won't get it for a moment, but that's what Queen has been about since day one-putting one over on the kids.

The album itself? Well, it's a wee bit less ornate than usual, though there are suitably operatic touches. The new songs run a trendy gamut from Police-influenced neoreggae (Don't Try Suicide) to power pop (Need Your Loving Tonight) to rockabilly (Crazy Little Thing Called Love), and they are uniformly smarmy, indifferently constructed, performed with surgical precision, and filled with all the soul and passion of a tin of anchovies. In other words, both their music and attitude here run true to form. Queen continues to market (successfully) the least thinly veiled contempt for its public of any band in the history of rock-androll. At this point, much as it sickens me, I'm forced to admire the gall with which S.S. they bring it off.

HELEN REDDY: Take What You Find. Helen Reddy (vocals); instrumental accompaniment. Killer Barracuda; That Plane; Wizard in the Wind; Midnight Sunshine; and six others. CAPITOL SOO-12068 \$8.98, (1) 8XOO-12068 \$8.98, (2) 4XOO-12068 \$8.98.

Performance: Cool Recording: Good

If Helen Reddy were a building, she'd be one of those stainless-steel-and-glass numbers where you can't open the windows. If she were a vegetable she'd be a cucumber, a very cool one indeed. As it is, she's a singer of some popularity (or at least high visibility on TV). Technically, she's pretty good, with a clear, belting voice and diction so precise that not even the most errant syllable ever escapes her. But from her first hit, I Am Woman, several years ago to the present, she's shown an inability to transmit the tenderer emotions of pop music. She's fine on fire and ice, but hearts and flowers seem alternately to baffle and annoy her. It's no surprise, therefore, that on this latest release she's able to give a fine dry-ice scorch to such things as Killer Barracuda and Take What You Find, a disco tale of disillusionment, but when faced with the gentle fantasy of Wizard in the Wind or a warm ballad like Last of the Lovers she sounds like Bette Davis singing lullabies. P.R.

RECORDING OF SPECIAL MERIT THE RITCHIE FAMILY: *Give Me a Break.* The Ritchie Family (vocals); instrumental accompaniment. Give Me a Break; I'll Never Be Able to Set You Free; Not As Bad As It Seems; and three others. CASA-BLANCA NBLP 7223 \$7.98, [®] NBL8 7223 \$7.98, [®] NBL5 7223 \$7.98.

Performance: Irresistible energy Recording: Terrific

The Ritchie Family—consisting of Vera Brown, Jacqui Smith-Lee, and Dodie Draher—is potentially the biggest pop trio since the Supremes. Regardless of how you feel about *Can't Stop the Music* (see page 103), you have to admit that the Ritchie Family's work in the movie is electric.

The same electricity charges this entire album, which is sensibly engineered to put

the singers right at the center of the sound. These three belters not only invest such big disco numbers as Give Me a Break with irresistible energy, they also warm up such pop ballads as Not As Bad As It Seems. The arrangements are not subtle, but they are honest, and they soar and growl just when they should. Producer/songwriters Jacques Morali and Henri Belolo don't usually produce very memorable lyrics, and only one set here really sparkles, that of a joyful swinger called Single Man ("I have heard all the lies, all the alibis/I have known married men in their single disguise"). It's my pick as the album's best track, a strong contender for a successful crossover hit. Lyrics aside, though, Morali



As advanced as our turntables!

Listening conditions vary with rooms and speakers. That's why the Philips AH 280 is so valuable, it can actually help you compensate for acoustic limitations arising from room and speaker arrangements. And for unbalanced signal input, the AH 280 can help compensate for inadequacies such as compressed bass and expanded treble.

Superior signal-to-noise ratios (up to 92 dB), stereo separation figures (as high as 62 dB) and harmonic distortion rates (as low as 0.005%). That's sound performance! And you'll find it in every Philips component. Audition our full line today at finer audio dealers.

For further information write Philips, Dept. 803, P.O. Box 6960, Knoxville, TN 37914.

PHILIPS HIGH FIDELITY LABORATORIES, LTD.

© 1980. Philips High Fidelity Laboratories, Ltd.

CIRCLE NO. 42 ON READER SERVICE CARD



JIM DALE: Britain's gift to humbuggery

A"Barnum" Souvenir

EVEN before the opening number in the big Broadway hit *Barnum*, the audience is already having a good time. Acrobats and prestidigitators climb about the balconies warming up the "suckers," two pianists thump out an overture in period style, and by the time Jim Dale (as P. T. Barnum) bounds on stage to sing the hustler's anthem There's a Sucker Born Every Minute, you find yourself glad to be one of them. As Barnum races unicycle-like along the trajectory of its protagonist's career from boarding-house operator to world fame as the head ringmaster of humbuggery, the stage bustles busily every minute-with clowns, bricklayers, acrobats, tumblers, gymnasts, jugglers, a marching band, everything up to and including a fake elephant. The whole three-ring show balances on the thinnest of high wires, but Joe Layton's direction and staging keep it up there, alive and active.

The CBS original-cast recording of Barnum boasts no elephant, fake or otherwise. only Cy Coleman's familiar-sounding music and Michael Stewart's dexterous lyrics, but it too manages to be splashy and swift and even touching at times---a happy souvenir of the show and a satisfactory sampler of its charms if no substitute for a ticket to the St. James Theater. Jim Dale, touted in the playbill as "Britain's many-splendored gift to the world of entertainment," sounds more like Littlechap in Stop the World I Want to Get Off than any plausible personification of Phineas Taylor Barnum, yet even when you can't see him dancing, bounding on a trampoline, or walking a tightrope he's a winning fellow. On the album Dale brings off with panache (though with somewhat less breathtaking energy than on stage) such numbers as *The Prince* of Humbug, the Museum Song with its barker's list of side-show attractions, and even that stickily sweet ballad *The Colors* of My Life, a duet he shares and later reprises with the mercifully reposeful Glenn Close in the role of Barnum's wife Chairy.

In addition to the principals, Leonard John Crofoot, as the twenty-five-inch-high General Tom Thumb, sings Bigger Isn't Better; Terri White, as "the oldest woman in the world," croaks out Thank God I'm Old; and Marianne Tatum, playing Jenny Lind, "the Swedish Nightingale" (whom Phineas imported to America and subsequently fell for), warbles her way through Love Makes Such Fools of Us All. There are patches of chatty dialogue leading into the numbers, a large chorus, a pair of pianists, and a full-size orchestra playing Hershy Kay's colorful orchestrations of Coleman's tunes, which do work up a wonderfully circusy hubbub. It's too bad that the recording gives almost nothing of the feel of the stage action that keeps Barnum bouncing; it's as though the entire ensemble just stood there stock still at their assigned microphones, as though stereo had never been invented. Nonetheless, on this disc Barnum still comes across as a pleasurable –Paul Kresh pageant.

BARNUM (Cy Coleman-Michael Stewart). Original-cast recording. Jim Dale, Glenn Close, Marianne Tatum, Terri White, Leonard John Crofoot, William C. Witter (vocals); chorus and orchestra, Peter Howard cond. CBS JS 36576 \$8.98, ⁽¹⁾ JSA 36576 \$8.98, ⁽²⁾ JST 36576 \$8.98. and Belolo obviously know what kind of music dancers like, and they and the Ritchie Family serve it up hot. *I.C.*

RECORDING OF SPECIAL MERIT

RONIN. Waddy Wachtel (vocals, guitar); Dan Dugmore (guitar, pedal steel); Stanley Sheldon (bass); Rich Marotta (drums). Home at Last; It Touches Everyone; Here Come the Runner; Hey Nadine; Desilu; and four others. MERCURY SRM-1-3832 \$7.98, MCR-1-3832 \$7.98, MCR4-1-3832 \$7.98.

Performance: A sleeper? Recording: Good

Couldn't find ronin in the overstuffed dictionary; nearest thing to it was ronyon, "a mangy or scabby creature." That would fit a lot of rock bands, but not this L.A. all-star outfit, which plays here as if it's been living out in the real United States. [Editor's note: according to a press release from Mercury, ronin means "lordless wandering samurai" in Japanese.] Waddy Wachtel, of course, is one of the cookingest rhythm-guitar players going and turns out to have a serviceable, gravelly singing voice, and Dan Dugmore, his colleague from the Linda Ronstadt band, is one of my favorite steel-guitar players (check out his delicious slide work on All I Can). The songs, mostly written by Wachtel, are straightforward and-within reason-surprisingly powerful rockers. There's nothing really innovative about anything here, except that a rock band that doesn't recycle a host of known riffs and licks and fills seems innovative. There's a hint of the so-called L.A. Sound in the way it's produced, but the clean playing doesn't sound prepackaged or sterile. I think that if some of these cuts get a decent amount of air play, we just may have a workable antidote to Foreigner and Styx. N.C

DIANA ROSS: Diana. Diana Ross (vocals); vocal and instrumental accompaniment. I'm Coming Out; Give Up; Tenderness; Upside Down; My Old Piano; and three others. MOTOWN M8-936-M1 \$7.98, [®] M8-936-H \$7.98, [©] M75-936-H \$7.98.

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

If you could play album covers this would be the record of the year. Inside, however, it's a lot less exciting. Songwriter/producers Bernard Edwards and Nile Rodgers of Chic have ground out eight routine disco songs for Diana Ross, the most beautiful thing to come out of Detroit since the 1932 Packard roadster. She performs them coolly and professionally enough, but the true disco style calls for plain old sweat, something she wisely refuses to produce. After all, love goddesses may, on occasion, glow a little, perspire even, but sweat? Never! *P.R.*

CARLY SIMON: Come Upstairs (see Best of the Month, page 78)

RECORDING OF SPECIAL MERIT

HANK WILLIAMS JR.: Habits Old and New. Hank Williams Jr. (vocals, guitar, keyboards); instrumental accompaniment. Old Habits; Dinosaur; Kaw-Liga; Here I Am Fallin' Again; The Blues Man; All in *Alabama;* and four others. ELEKTRA 6E-278 \$7.98, ⁽³⁾ ET8-278 \$7.98, ⁽³⁾ TC5-278 \$7.98.

Performance: Very good Recording: Good

Hank Williams Jr. is now older than his legendary daddy ever got—but still not old enough to have gotten his crazy family life out of his system. Here again are several fiercely autobiographical songs (they usually say, in effect, "I've been through hellish times, but it's better now"), two written by his father, several references to the first Hank in other songs, and a cover photo that has him posing on the fender of the Cadillac convertible in which Hank Senior, twentynine years old, took his last ride.

If it takes sadness to make soul, then Hank Junior ought to have a ton of it; his music is heart-rending, but the pain is beneath the surface. His writing is more specific than his father's was, but less direct in some ways; he seems to bleed internally where his father bled externally. He's done quite a job, I'd say, just to stay alive and sane, and he is damned good. This is not the strongest album he's ever made, as the songs are uniformly good second-stringers and not top guns, but it's up there-the singing may be the best he's ever done through a whole album. There is so much more to it, at a given instant, than the particular note he's holding and the syllable he's enunciating, and when you wade into it, it's more ambiguous than what you found back in his father's voice. Which means, among other things, that there's some semblance of hope in it. This album won't exactly make you cry, but it'll make you feel for all of us poor wretches who have parents or children. NC

WRECKLESS ERIC: Big Smash. Wreckless Eric (vocals, guitar); vocal and instrumental accompaniment. A Pop Song; Break My Mind; Semaphore Signals; Hit and Miss Judy; Take the Cash (K.A.S.H.); Reconnez Cherie; Walking on the Surface of the Moon; I Wish It Would Rain; Let's Go to the Pictures; and sixteen others. EPIC/ STIFF E2 36463 two discs \$9.98, © E2T 36463 \$9.98.

Performance: Erratic brilliance Recording: Variable

Wreckless Eric Goulden is a blunt and puckish Cockney kid with a cynical and erotic view of the world, a surprising talent for lyrics, and a rasping voice that alternately fascinates and repels. Because of all this, the Stiff label has never quite known what to do with him, and this double-disc album containing many of his British singles has been hurled haphazardly onto the American market. Trying to take in the whole set all at once may give you trouble. A little Wreckless Eric goes a long way, and it's best to take him two or three songs at a time. But I have to like a guy who relieves his stage fright by singing Beatles tunes in his dressing room and who describes American fast food as "Horror Burger with syphilitic side salad." J.V

RECORDING OF SPECIAL MERIT

YACHTS: Yachts Without Radar. Yachts (vocals and instrumentals). Don't Call Us; I

Couldn't Get Along Without You; The Lush; Life Saving's Easy; March of the Moderates; There's a Ghost in My House; and four others. POLYDOR/RADAR PD-1-6270 \$7.98, © ET-1-6270 \$7.98, © CT-1-6270 \$7.98.

Performance: Very good Recording: Good

The Yachts are a well-drilled and highly theatrical quartet from Liverpool. Their arrangements are full of zip and dash, and their material treats life's carnival humorously but without complacency. There's some didacticism in this, as the Yachts seem to be trying to demonstrate how ridiculously people can behave by chronicling, \dot{a}

la Pete Townshend, the absurdities of a collection of loveless snobs, fools, dilettantes, and losers. It's not surprising that this is one of Townshend's favorite groups. Like the Who, the Yachts make the most of just four instruments, managing to have an orchestral sound quality that fits their theatrical performing style. And, like Townshend himself, as writers the Yachts seem unable to decide whether their characters are merely victims or are self-destructive. which tends to blunt the point of their satire. Nevertheless, the Yachts are distinctively entertaining, and I strongly recom-IVmend that you hear them.

(Continued on page 101)



As advanced as our turntables!

Stereo Review states, "Short of being interfaced with an external computer, it is hard to imagine any FM or AM tuning mode that this tuner cannot handle."* We couldn't have said it better! Because the Philips AH 180 utilizes the ultimate in precision tuning — a microprocessor controlled PLL frequency synthesizer — to offer unlimited operating flexibility.

Instantaneous frequency selection! Key-in tuning, automatic search, manual search . . even memory tuning with twelve presets. The AH 180 is so flexible that even possible future FCC changes to channel spacing can be easily accommodated with the push of a button. That's sound performance. And you'll find it in every Philips component. Audition our full line today at finer audio dealers.

For additional information write Philips, Dept. 803, P.O. Box 6960, Knoxville, TN 37914.

PHILIPS HIGH FIDELITY LABORATORIES, LTD.

© 1980. Philips High Fidelity Laboratories, Ltd.

*<u>Stereo Review</u>, April, 1980

CIRCLE NO. 43 ON READER SERVICE CARD

NCE I asked the late Cannonball Adderley a question that seems to produce a different answer from each person it is addressed to: "What is a jazz singer?" Without the slightest hesitation, Adderley replied: "A vocalist who would treat a song not as it was written, but as someone like me might play it. A jazz singer is the same as a jazz musician except that she or he uses the vocal cords as an instrument." I always remember that reply, because it is simple and to the point. If we absolutely must subdivide music and place it in little frames. then we must also be prepared to explain why without going into a thesis-length analysis. Since jazz criticism began, there have been those who would take up several pages of print to say what Cannonball put into just a few words.

One distinguished practitioner of the jazz singer's art is Mel Tormé, whose professional career began with the Coon-Sanders Orchestra in 1929 (when he was four years old) and very much continues. His recent Gryphon release bears the title "A New Album," still appropriate even though it was recorded (in London) three years ago. It is a lavish production with what at times sounds like a full symphony orchestra and some wonderful supporting solos by saxophonist Phil Woods. Tormé chose the songs himself, weighting the program heavily in favor of sentimental love ballads because-or so he speculates in his liner notes-he was still feeling the ache of his own broken marwith suitable drama and respect. Arranger Chris Gunning rarely gets so carried away as to lose the thread woven by his singer; there are occasional (tolerable) lapses here and there, but only on one track, Janis Ian's Stars, does Gunning actually take over. In his notes, Tormé calls "A New Album" the "finest album I have ever made." Artists often feel that way about their latest effort, but I think he really means it, and my ears tell me there is justification for his claim.

LENA HORNE was eight years old when little Melvin Tormé made his professional debut, but she didn't make hers until much later. In the course of doing some research a few years back, I came across a 1936 newspaper with a photograph of a young lady wielding a baton. "Pretty Miss Helena Horne, just out of high school, conducts the Noble Sissle Orchestra in the famous leader's absence," read the caption. "We understand she's a fine chirper, too."

They understood correctly, of course, but who could have predicted that "Helena" (Sissle didn't think the name "Lena" had enough class), the chirping conductor (or conducting chirper), would not only still be singing but sound better than ever almost fifty years later? Before you do the sensible thing and rush out to buy "Lena and Gabor," Horne's new Gryphon release, check your collection for a 1969 Skye album with the same title (SK-15). Except for the cover and the slightly different order of the ten quite impressed when this album first came out, but I am even more impressed now; just like Horne herself, the album has a Dorian Gray agelessness about it. Only the material gives away the recording's real age, but not to its detriment, for this is a well-chosen program from a period that saw both a resurgence of ballad writing and the entry of rock music into the adult world.

Hungarian-born guitarist Gabor Szabo gets equal billing but plays more of a supporting role. Szabo founded the short-lived Skye label in partnership with Cal Tjader and Gary McFarland, and Szabo and McFarland also share producer credits on this album, which may well be the finest Lena Horne has made in her long, illustrious career. If, indeed, there is a more carefully conceived, better performed album by this extraordinary artist, I have not heard it. Horne is usually not thought of as a "jazz singer," and certainly neither she nor Tormé is limited to any single musical frame. But make no mistake about it: both Lena Horne and Mel Tormé can sing jazz or pop with the best of the "chirpers."

-Chris Albertson

LENA HORNE/GABOR SZABO: Lena and Gabor. Lena Horne (vocals); Gabor Szabo (guitar); vocal and instrumental accompaniment. Watch What Happens; Something; Rocky Raccoon; The Fool on the Hill; Everybody's Talking; Yesterday When I Was Young; My Mood Is You;



riage. That pain, and Tormé's close identification with the lyrics of these songs, comes through in the performances. Sure, after more than fifty years of singing professionally, Tormé is a skilled craftsman, but there are certain feelings that simply cannot be faked or concealed, and one is reminded of that as the Velvet Fog rolls ever so gently and convincingly through these tales of love and vanished youth.

The arrangements nudge Tormé along

selections, the albums are identical. The musical arrangements, by the late and extremely gifted Gary McFarland, are perfect, as is the small studio band that plays them. This band was, in fact, the nucleus of what eventually became the group Stuff. Lena Horne herself is superb as she defiantly closes the generation gap of the late Sixties by singing a youthful program (including four Beatles tunes) as if each song had been written expressly for her. I recall being Message to Michael; Nightwind; In My Life. GRYPHON G-790 \$7.98.

MEL TORMÉ: A New Album. Mel Tormé (vocals); Phil Woods (saxophone); Chris Gunning Orchestra. The First Time Ever I Saw Your Face; Stars; New York State of Mind; Ordinary Fool; Bye Bye Blackbird; All in Love Is Fair; Send In the Clowns; When the World Was Young. GRYPHON G-796 \$7.98.



CLARE FISCHER BIG BAND: Duality. Clare Fischer Big Band (instrumentals). Liz Anne; Waltz; Come Sunday; This Is Always; One; and four others. DISCOVERY DS-807 \$8.98.

Performance: Sixties vintage Recording: Good

Listening to this album is like returning to the West Coast in the early Sixties, which is where and when pianist Clare Fischer first built his reputation as an arranger and composer of extraordinary sensitivity.

Though just released, the material in "Duality" was actually recorded in 1966 or 1969-depending on which part of the back cover one reads. Just why it has taken so long to make the recording available is neither explained nor readily apparent. There are some rough spots here and there, such as a misfiring trumpet in Come Sunday, but if that were all that stood in the way a remedy could easily have been found. In the main, Fischer's writing holds up, and when his music sounds dated, as it occasionally does, it is because he employs harmonic devices characteristic of much of early-Sixties film and television scoring. This is particularly true of side two, a session wholly devoted to the big band (which consists of top West Coast studio musicians). The first half has a different and, I think, more interesting character, being, to quote Fischer's own description, "basically trio improvisations with the band as a foil." Still, this is really not Clare Fischer at his best, and perhaps that is what accounts for the long delay. C.A

RECORDING OF SPECIAL MERIT

ALBERTA HUNTER: Amtrak Blues. Alberta Hunter (vocals); instrumental accompaniment. The Darktown Strutters' Ball; Nobody Knows You When You're Down and Out; I'm Having a Good Time; Always; My Handy Man Ain't Handy No More; Old Fashioned Love; and four others. Co-LUMBIA JC 36430 \$7.98, © JCT 36430 \$7.98.

Performance: Marvelous Recording: Very good

Every once in a great while an album comes along that makes you feel so good you can actually get high from it. The wise and completely wonderful Alberta Hunter's "Amtrak Blues" is that kind of album. Ms. Hunter, now in her mid eighties, is one of the great survivors, and something of a philosopher as well. Boiled down, her message seems to be that every life has its ups and downs, it can be hard and it can be easy and on the whole Alberta prefers things up and easy. She treats her own art so lightly, mockingly, and offhandedly that I can't help but think she gets uncomfortable on pedestals. There's a fine serious introduction to her work and its meaning in her life in this album's excellent liner notes by Chris Albertson, who had much to do with her rediscovery and with enticing her back into public performance. All that's left for me to say is, don't miss this one. P.R.

RECORDING OF SPECIAL MERIT

ANITA O'DAY: Live at the City. Anita O'Day (vocals); Norman Simmons (piano); Rob Fisher (bass); Greg Smith (baritone flute); John Poole (drums). In a Mello-Tone; Hershey Bar; Emily; Four Brothers; Blue Skies; and five others. EMILY ER-102479 \$7.98 (from Emily Records, P.O. Box 123, North Haven, Conn. 06473).

Performance: Stunning Recording: Very good

Anita O'Day's latest release is another happy signal that 1980 may turn out to be her year—at last! After a previous rise and fall that would do credit to a gaudy old Lana Turner script (or a gaudy new Diana Ross one), Ms. O'Day is audibly and spectacularly on the rise again. This album recorded live (with all the intros and audience chitchat included) at the City club in San Francisco is a real stunner. For almost an hour O'Day drenches her audience with the kind



As advanced as our turntables!

If you have an impressive sound system, you're ready to add the final touch . . . with the Philips AH 080 Programmable Timer. Flip a switch — all individual components are instantly under automatic control.

It can be programmed for up to twenty different operations. To turn your system on and off at any desired time (up to a week in advance) ... to wake you up to your favorite album ... to record a special program while you're away. And even welcome you home to soft, soothing stereo. That's sound performance. And you'll find it in every Philips component. Audition our full line, today at finer audio dealers.

For additional information, write Philips, Dept. 803, P.O. Box 6960, Knoxville, TN 37914.

PHILIPS HIGH FIDELITY LABORATORIES, LTD.

© 1980. Philips High Fidelity Laboratories, Ltd.

CIRCLE NO. 44 ON READER SERVICE CARD

of elegant musicianship and phosphorescent performing that transcends time or age or faddish labels. Lightly, lovingly, expertly, expectedly, she burnishes the old standards (Blue Skies, Emily, In a Mello-Tone) to a deep, warm gleam. Less expectedly, what she does with the relatively new What Are You Doing the Rest of Your Life? is a revelation. The Michel LeGrand music for this gasper has a certain sentimental charm, but the lyrics by Marilyn and Alan Bergman are halvah of the stickiest sort. O'Day sails through it with a cool class and clean style it has never inspired in any other performer, transforming it into a moving, adult mood piece. Anita O'Day is now one of our best contemporary pop singers. P.R

RECORDING OF SPECIAL MERIT

STEPHEN ROANE: Siblings. Stephen Roane, Cecil McBee, Ron McClure (bass); Richie Beirach (piano); Bill Connors (guitar); Collin Walcott (tabla); Freddie Waits (drums). Mothlight; Song for Cetaceans; When Silence Rings; Tuesdays; and four others. LABOR LAB-2 \$7.98.

Performance: Formidable Recording: Excellent

I don't know anything about Stephen Roane beyond what I have learned from "Siblings," his debut album: namely, that he has studied bass with the pre-eminent Richard Davis and that he has made one of

Cleaning your records is only half the battle.

The best record cleaner in the world can't preserve a record. It can only clean it. A good record cleaner can remove dust, oily fingerprints and deep-seated dirt from the grooves. But, it can't protect the record from wear and friction.

The diamond is the hardest natural substance known. At the tip of a stylus, it is the spearhead of over 15 tons per square inch of destructive pressure that shears away microscopic chips of vinyl while traveling along the delicately thin grooves.

The finest high fidelity system can't restore the subtle high frequency and midrange tones that are unavoidably lost.

Sound Guard⁽¹⁾ Record Preservative is a scientifically designed, ultra-thin, dry formulation that practically eliminates record wear. Your records treated with Sound Guard Record Preservative will sound just as good after 100 plays. No hiss. No pops. No clicks.

Give your records 100% protection with two simple steps. First, clean them with Sound Guard Record Cleaner; then preserve them with Sound Guard Preservative. Buy them separately or get them both in the Sound Guard Total Record Care System. And stop record wear in its tracks.



Sound Total Record Care System

Sound Guard Corp. 348 S.W. 13th Ave., Pompano Beach, Fla. 33060 Facilities: Cincinnati, Ohio; Tokyo, Japan; Brussels, Belgium. CIRCLE NO. 56 ON READER SERVICE CARD the finest albums released so far this year. Oddly enough, Roane does not play on the gently strolling opening track, Mothlight, but he composed it—as he did the rest of the tunes-and he shows as much promise in that field as on the performing end. Mothlight is engagingly played by an outstanding trio consisting of Cecil McBee, Ron McClure, and Freddie Waits, and it is followed by Roane's solo, Song for Cetaceans. Roane shuffles his esteemed colleagues to create almost as many instrumental combinations on the album as there are selections, but there is also an overall sound here, a kind of romantic, semiclassical sound. Stephen Roane's debut will be a hard act to follow. C.A.

BEN WEBSTER: Soulville. Ben Webster (tenor saxophone); Oscar Peterson (piano); Ray Brown (bass); other musicians. Makin' Whoopee; Ill Wind; Bye Bye Blackbird; Sunday; This Can't Be Love; When Your Lover Has Gone; Time on My Hands; Lover Come Back to Me; and six others. VERVE VE-2-2536 two discs \$8.98, © CT-2-2536 \$8.98.

Performance: Sweet butter Recording: Very good

Profusely recorded and widely imitated, Ben Webster shares with Coleman Hawkins and Chu Berry credit for making the tenor saxophone the most popular horn instrument in jazz. In these Verve recordings, made in 1956 and 1957 with excellent rhythm sections headed by Oscar Peterson, Webster was in top form, his ideas flowing like melted butter through a bed of rice. It can be argued that these sessions weren't Webster's crowning achievements, that he had mellowed since his earlier days with Ellington, but no one can deny that he was a master of the ballad. This record belongs on your jazz shelf. C.A.

LESTER YOUNG: At Olivia Davis' Patio Lounge. Lester Young (tenor saxophone); Bill Potts (piano); Norman Williams (bass); Jim Lucht (drums). A Foggy Day; Tea for Two; Jeepers Creepers; When You're Smiling; I Can't Get Started; and two others. PABLO LIVE @ 2308-219 \$8.98.

Performance: Interesting find Recording: Defles circumstances

When Lester Young appeared at Olivia Davis' Patio Lounge in Washington, D.C., on Friday night, December 7, 1956, he had to perform with the house rhythm section. Capable as pianist Bill Potts' group was, it matched neither Count Basie's groups nor those that Norman Granz had furnished Young. Nevertheless, judging from what can be heard on this disc, I am sure the saxophonist didn't find this club experience painful.

Unlike most privately made on-location recordings, the Patio Lounge date was taped with excellent equipment (belonging to Potts), and the result, now released for the first time, is technically on a par with most mid-Fifties commercial output. Musically, there is no need to make apologies for this album. It contains a true master's wonderful variations on mostly familiar themes, and it will enrich any receptive listener's musical mind. C.A.



BEN BAGLEY'S E. Y. HARBURG RE-VISITED. Tammy Grimes, Carleton Carpenter, Blossom Dearie, Helen Gallagher, E. Y. Harburg, Patrice Munsel, Arthur Siegel (vocals); chorus and orchestra. Hold On to Your Hats (complete); Fancy Meeting You; Sing the Merry; Where Have We Met Before; Showgirl Couplets; and four others. PAINTED SMILES PS 1372 \$8.98.

Performance: Okay to wonderful Recording: Very good

E. Y. ("Yip") Harburg grew up poor in New York City, where he was born in 1898, but he gave up all attempts at a business career after the 1929 crash, started writing lyrics, and got rich. One of the things that made him rich was, ironically, *Brother, Can* You Spare a Dime?, which practically became the theme song of the Great Depression. And it is certain that without his lyrics for such shows as *Finian's Rainbow* and Jamaica (for which he also wrote the books), the American musical theater would have been a lot poorer. Even Harburg had his off days, though, and when he and Burton Lane did the score for the 1940 musical Hold On to Your Hats, neither of those gifted gentlemen could be said to have been at his most inspired. Despite some sparkling moments, such as the takeoff on Carmen Miranda in She Came, She Saw, She Cancanned and the trio in Life Was Pie for the Pioneer, most of the songs in Hold On to Your Hats are as dead now as the targets of Harburg's satire.

Harburg is better served by the other songs here, from a variety of forgotten hits and flops. He himself sings the once-topical Saroyan from Bagley's Shoestring '57 revue and Fancy Meeting You from Stagestruck, Patrice Munsel sounds wonderful in Vernon Duke's Where Have We Met Before, and Tammy Grimes does more than justice to Moon About Town from the 1934 Ziegfeld Follies. P.K.

THE BLUES BROTHERS. Originalsoundtrack recording. John Belushi, Dan Ackroyd, Ray Charles, Cab Calloway, James Brown, Aretha Franklin (vocals); instrumental accompaniment. ATLANTIC SD 16017 \$8.98, ⁽⁶⁾ TP 16017 \$8.98, ^(c) CS 16017 \$8.98.

Performance: Spotty Recording: Good

The Blues Brothers were created by John Belushi and Dan Ackroyd during their stay on the now-defunct TV series Saturday

Night Live. Neither is a singer, as becomes evident as this album plays on. Belushi can fake it pretty well, but Ackroyd is simply hopeless To offset their deficiencies, they bury themselves as much as possible under the whopping sound of their band (which includes guitarist Steve Cropper and bassist "Duck" Dunn from Booker T. and the MG's), as well as associating with great names in music and handing them chunks of the movie. Aretha Franklin reprises her hit Think, James Brown (in the role of a preacher) sings The Old Landmark so well that I wish he would cut a whole album of spirituals, Rav Charles tears through Shake Your Tailfeather, and Cab Calloway does Minnie the Moocher. Most of the rest is benumbed by the amateurish efforts of Belushi and Ackroyd. This is not the way JV to start a blues revival.

Performance. Fun Recording: Superb

Can't Stop the Music is not the movie-musical event of the Eighties some expected, but that doesn't keep the soundtrack album from being a lot of fun. The Village People's contribution is immeasurably enriched by (Continued on page 105)

AMERICA'S FOREMOST ROCK/JAZZ MAGAZINE SAYS POLK AUDIO SPEAKERS PUT THE OTHERS TO SHAME!

"If you're shopping for stereo our advice is not to buy speakers until you've heard the Polks." <u>MUSICIAN Magazine</u>

"We at Musician have found the Polk Audio Monitor Speakers so vastly superior to the competition in their price range we had to pass the information along...the design produces a remarkably well integrated and coherent sound that adapts itself ideally to all kinds of music...and produce the kind of open uncolored perfectly imaged sound we thought began at twice the price and required huge amounts of amplification...(The Polks) will benefit from state-of-the-art electronics but sound quite

plinication...(The Poiks) will benefit from state-of-the-arr electronics out sound quite magnificent with a good mid-powered popular brand receiver...They make the popular speakers in their price range seem dim, colored, boxy, unmusical and just plain insufficient...If you're shopping for stereo our advice is not to buy speakers until you've heard the Polks" <u>MUSICIAN</u>

Polk Audio loudspeakers starting at around \$125 each, are available at the finest hi-fi stores. Use the Reader Service Card for complete information and the location of the Polk Audio dealer nearest you.

Polk Audio, Inc. 1205 S. Carey St. Balto., Md. 21230













S^o much of our knowledge of jazz in its most creative formative periods is based on either written accounts or recordings of the music that we frequently forget that the early masters, whom we now revere for the power of their artistry, were often tough pragmatists facing difficult life situations. A major component of their success was showmanship. They had to know not only how to pack a house but how to hold the audience's attention through clever banter, glittering charm, physical antics-and at times, if they were black, downright clownishness. Indeed, the efforts of black musicians to transcend the demeaning circumstances of their environment without sacrificing artistic quality are some of the greatest feats of courage in the history of American show business. That bitterness has not been dominant in their autobiographical accounts is a triumph of the human spirit.

A most significant view of the black musician as one who had to sell himself as well as his music can be found in the filmed short subjects made at the end of the Twenties and in the early Thirties. While a few dogged collectors have made it a point to seek out this valuable visual evidence of evolving jazz, the general public has had an opportunity to view these films only if they live in New York City, with its wealth of repertory and revival film theaters, or near college campuses where jazz film festivals are occasionally held. This situation is now rectified to some extent by the release of two albums on the Biograph label containing the soundtracks of early film shorts featuring Duke Ellington, Bessie Smith, Louis Armstrong, and Cab Calloway. Most fittingly, one album is devoted entirely to Ellington films, for he was the consummate showman.

Included is the eighteen-minute soundtrack of Black and Tan, Ellington's 1929 cinematic debut. Ideally, of course, one should see the film itself, which contains some brilliant photography and captures at least a hint of the flavor of the old Cotton Club days. But the soundtrack, though at times a bit fuzzy, conveys the essence of the tortuously contrived story line with its stereotypical black images. There is the Duke, a struggling young musician, composing his historic Black and Tan Fantasy on a piano that is about to be hauled away by two Amos-'n'-Andy-type characters who are diverted by a bottle of whiskey dangled before them. The beauty of the music played by Ellington and trumpeter Arthur Whetsol towers above the tawdry images. The Ellington band of 1929, with its line-up of such immortals as Barney Bigard, Joe Nanton, Sonny Greer, Cootie Williams, Johnny Hodges, and Harry Carney, is featured in the night-club scene accompanying lovely Fredi Washington, whose dance to the Cotton Club Stomp unfortunately cannot be seen on disc. Yet one gets a sufficient feeling of Ellington's so-called "jungle music" of that period, with its inventive, clustered interplay of horns. The closing death scene

of this film is memorable for the work of the Hall Johnson Choir, which weaves a spiritual content into the *Black and Tan Fantasy* in a version not available elsewhere on records.

There are other treasures on this-fascinating disc. The second side holds two nineminute soundtracks. A Bundle of Blues, from 1933, features Ellington's longtime vocalist Ivie Anderson singing Stormy Weather. A study in Ellington moods called Symphony in Black, filmed in 1935, showcases the nineteen-year-old Billie Holiday singing a short blues lament in a style as distinctive and firmly developed as the one that was to mark her later work. These are moments to remember.

HE second album is far less satisfying except for the nine-minute opening segment devoted to Bessie Smith's only film appearance (in St. Louis Blues, 1929). The majesty of her voice comes through on the timeworn soundtrack, and it is easy to see how she has influenced virtually every great black woman singer who has followed her. from Mahalia Jackson to Aretha Franklin. But the Louis Armstrong offering, Rhapsody in Black and Blue, from 1932, is most disturbing. It readily demonstrates why so many blacks came to regard Armstrong with shame rather than the respect he deserved. Here the clown all but completely obscures the artist. Guttural cackles predominate, and the fleeting sound of Armstrong's golden horn is buried in the ignominy of minstrelsy. Certainly he deserved better than this, but he was not tall, lightskinned, and handsome, like some others, and even his genius was not enough to make up the difference.

The second half of the album is given over to the work of Cab Calloway, a singer who was more showman than musician, though his band contained fine artists. These are pleasantly diverting excursions into Calloway's brand of scat-singing, but they lack substance. Quite likely these films are best appreciated when seen as well as heard.

In all, these two albums are valuable musically, and the dialogue and other recorded sounds included may help bring the general public just a little closer to understanding how these artists made it through.

-Phyl Garland

DUKE ELLINGTON'S BAND SHORTS (1929-1935). Original-soundtrack recordings. Black and Tan; A Bundle of Blues; Symphony in Black. Duke Ellington and His Orchestra, with Arthur Whetsol, Fredi Washington, the Hall Johnson Choir, Ivie Anderson, Bessie Dudley, Florence Hill, Billie Holiday, and Snakehips Tucker. BIO-GRAPH @ BLP-M-2 \$7.98.

BESSIE SMITH, LOUIS ARMSTRONG, CAB CALLOWAY. Original-soundtrack recordings. St. Louis Blues. Bessie Smith, Hall Johnson Choir. Rhapsody in Black and Blue. Louis Armstrong and His Orchestra. Cab Calloway's Hi-De-Ho. Cab Calloway and His Orchestra. BIOGRAPH @ BLP-M-3 \$7.98. Ray Simpson. In the anti-anti-disco title song, in the deliriously upbeat Magic Night, even in the remake of the group's giant hit YMCA, Simpson's warm, musical voice is a vast improvement over the hog callin' of former lead singer Victor Willis. But the album's real highlights are not Village People songs at all. Presented here without the onscreen audience noise that almost buries it in the movie, the Ritchie Family's Give Me a Break is the most exciting disco production in the album, and David London's Samantha, though considerably shortened, runs a close second. These are true syntheses for the Eighties of Fifties rock-'n'roll and the dance energy of disco. Finally, remember how terrible movie albums used to sound? Well, forget it; this one has been remastered for home listening in superb high fidelity. IC

COLE PORTER MUSICALS. Let's Face It. Reconstruction of 1971 production. Danny Kaye, Mary Jane Walsh, Hildegarde (vocals); various choruses, orchestras, and conductors. **Red, Hot and Blue.** Selections from 1936 production. Ethel Merman, Yvonne Printemps (vocals); various orchestras and conductors. Leave It to Me! Selections from 1938 production. Mary Martin (vocals); Eddie Duchin and His Orchestra. SMITHSONIAN COLLECTION @ 2016 \$7.99 (plus \$1.89 postage and handling from Smithsonian Customer Service, P.O. Box 10230, Des Moines, Iowa 50336).

Performance: Happy Recording: Good remastering

The producers of the Smithsonian Institution's series of "archival reconstructions" of American musical shows are sometimes driven to curious lengths to assemble an album. In this case, there were apparently only enough historic recordings of material from three separate Cole Porter musicals to make up a single record, and some of the sources used are patently secondhand. For example, Hildegarde never appeared in Let's Face It, though she did record some of its songs; since the originals are unavailable, her versions appear in this "reconstruction." The pickings seem to have been so slim for Leave It to Me! that one of the three tracks devoted to it here is an instrumental medley played by Eddie Duchin and His Orchestra, who certainly were not in the pit at the Imperial in New York when the show was running; they also accompany star Mary Martin in two recordings of songs from the show

But never mind all that. What matters is that these are three happy scores from a time when "book musicals" were not expected to be serious or realistic or preach an uplifting message. Where else can one hear Merman belting out such delights as Down in the Depths (on the 90th Floor), It's De-Lovely, and Ridin' High, or Danny Kaye sailing triumphantly through Let's Not Talk About Love and the tongue-twisting Melody in 4F (for which his wife Sylvia Fine supplied the words), or Mary Martin's show-stopping My Heart Belongs to Daddy? And there are loads of historic photographs and conscientious notes by Richard C. Norton complete with plot summaries, production histories, and recollections of that "happy era" in the American musical theater. A happy release indeed. P.K.





□ Former hippie dream-date **GRACE SLICK** looks as stylish as ever at RCA's New York City recording studios during sessions for her latest ("Dreams," RCA AFL1-3544). The startled disappointment Grace displays here may be the result of her discovery, just seconds before the picture was snapped, that RCA's Little Nipper mascot can't make sense of a sales report either.



□ Who says Romance is dead? Not me, not **TED NUGENT** (he of the endless guitar solos and "Scream Dream," Epic FE 36404), and not **ANN WILSON** of Heart ("Bebe LeStrange," Epic FE 36371) either. Doubt it? Here are two out of the three at a listening party in Manhattan celebrating Ann's album, and for the occasion irrepressible Ted has his...er... Heart on. Frankly, Ted, it would have been more macho to wear it *without* the tee-shirt.



☐ The knife-wielding gentleman having a go at his thirtieth birthday cake is **TEDDY PEN-DERGRASS** ("Teddy," Philadelphia International FZ 36003). The bash was at Manhattan's Magique disco, and the young women, members of the New York Cosmos' cheerleading

squad, performed a cheer especially for the occasion (all I got for *my* thirtieth birthday was an autographed picture of Estelle Winwood).



□ In their never-ending search for cheap thrills, the Rock Star Smart Set has turned to Games of Chance! By way of proof, we offer this clandestine photo of squeaky-clean **NEIL SEDAKA**, his teenage daughter (!) Darla, and champion pool shark Steve Mizerak engaged in an illegal triple play on the verdant baize. The shocking goings on took place at a party celebrating the release of Neil's new (what else?) "In the Pocket" (Elektra SE-259).



The Punk Meets the Godfather: Two generations of white New York street soul cross paths during promotional junkets. They are **BILLY JOEL** ("Glass Houses," Columbia FC 36384) and Sixties veteran and ex-Rascal FELIX CAV-ALIERE ("Castles in the Air," Epic JE 35990). For those of you too young to remember the Sixties, Felix is the one with the beard.





We now take you backstage at the Palace in Houston, Texas, where we find **GLEN TILBROOK** (left) of the English pop group Squeeze ("Argy Bargy," A&M SP 4802), hot-shot Linda Ronstadt producer **PETER ASHER** (second from left), and some other industry types involved in a bizarre Fifties sex practice: Getting Pinned. Oh, well, as my grandmother used to say, they can do what they like—as long as they don't frighten the horses.



□ Anarchy in Burbank: I didn't believe it myself until I saw it, but, as this picture proves, JOHN: LYDON (a.k.a. Rotten) of anti-pop group Public Image Ltd. really did make an appearance on TV's institutional perennial *American Bandistand* lip-synching two numbers from his "Second Edition" (Island 2WX 3288). That is *not*, by the way, Frankie Avalon pleading for "one more chance" up front.

Desperately attempting to hold up his trousers, noted *bel canto* tenor **WRECKLESS ERIC** ("Big Smash," Stiff/Epic E2 36463) is found here braced backstage in Manhattan between ex-Meat Loaf warblers Karla DaVito and Ellen Foley. (Funny ... it seems we've run a shot of Ms. Foley the last two Rotos in a row; does she simply get around, or do I have a thing for blondes?)



Classical Discs and Tapes



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

RECORDING OF SPECIAL MERIT

ALBINONI: Concerto in B-flat Major, Op. 7, No. 3. HERTEL: Concerto á 6 for Trumpet, Oboe, and Strings. HUMMEL: Concerto in E-flat Major for Trumpet and Orchestra. André Bernard (trumpet); Heinz Holliger (oboe); English Chamber Orchestra, George Malcolm cond. CBS M 35856 \$8.98, © MT 35856 \$8.98.

Performance: **Stunning** Recording: **Well-balanced**

André Bernard is one of those rare trumpeters whose playing combines brilliance, lyricism, and good taste. No matter what he plays, it sounds right. For example, the Albinoni concerto here was originally written for oboe, but Bernard makes it a convincing trumpet work, no small feat. In the Hertel concerto he demonstrates his ability to blend with another soloist, Heinz Holliger, whose merits as an oboist are well known. The Hummel concerto, a strange but typical mixture of Mozart and Rossini, is brought off brilliantly, and Bernard's good taste saves the last movement, which borders on kitsch.

George Malcolm keeps the English Chamber Orchestra firmly in control and provides no mere accompaniment but strong support that perfectly complements the trumpet sound. S.L.

Explanation of symbols:

- $\odot = stereo \ cassette$
- $\Box = quadraphonic disc$
- = digital-master recording
- $\oplus = direct-to-disc$

Monophonic recordings are indicated by the symbol \circledast

The first listing is the one reviewed; other formats, if available, follow it. J. S. BACH: St. Matthew Passion (BWV 244). Edith Mathis (soprano); Janet Baker (contralto); Peter Schreier (tenor); Dietrich Fischer-Dieskau (baritone); Matti Salminen (bass); Munich Bach Choir; Regensburg Domspatzen; Munich Bach Orchestra, Karl Richter cond. ARCHIV 2712 005 four discs \$39.92, © 3-3376 016 \$29.94.

Performance: Good Recording: Very good

Karl Richter's approach to Bach is a logical continuation of the Germanic style of Bruno Walter. Top-ranking international soloists join massed choral and orchestral forces, the score is treated as gospel, and the performance is presented as a religious experience. The style is really late-Romantic, with sumptuous sonorities moving in spacious tempos and long legato lines slowly and seamlessly unfolding. This approach has very little to do with the "historical" performance practices favored by so many groups performing Baroque music today, but Bach's music transcends performance styles. Good singing and technical perfection, in both of which this album abounds, allow Bach's overpowering vision to shine forth unblemished.

The most striking element of this performance is Peter Schreier's Evangelist. Beginning in a somewhat measured and pompous manner, Schreier builds up the drama of the action by quickening the tempos and adding vocal excitement. The other characters fall in, and the *turba* is beautifully paced to be a part of the narration. In contrast, Dietrich Fischer-Dieskau as Christ maintains an unyielding contemplative quality, moving through the harsh action with a protective halo of strings.

The ariosos and arias that comment on the action are sung as if in a world apart, with a quiet intensity that searches out the spiritual meaning of each event. The passion of the narration never stirs the mood of faithful acceptance, no slightest ripple of emotion enters into the voices to destroy the symmetry of Bach's music. The familiar chorales, which would have been sung by the congregation in Bach's time, are also treated highly individually. The mood of each reflects the preceding action, and the supple phrasing follows grammatical structure rather than obeying the fermatas that were used to delineate the versification.

Although one may take exception to some of Richter's excessively slow tempos or to his general approach, one cannot fault the seriousness and effectiveness of the grand plan. The result is truly impressive. S.L.

J. S. BACH/CARLOS: Brandenburg Concertos Nos. 1-6 (BWV 1046-1051). Wendy Carlos (synthesizers). CBS M2X 35895 two discs \$11.98, © MTX 35895 \$11.98.

Performance: Wired Recording: The same

In his liner notes, Allan Kozinn argues that these performances are nothing more than transcriptions—a contemporary equivalent of Bach/Busoni, Bach/Stokowski, or Bach/ Segovia. Well, maybe. It just so happens that I have been listening to some Bach/ Segovia lately, and there is one rather basic difference. Bach/Segovia and all the other tandem Bachs are live-performance pieces; Bach/Carlos is not performance music but was laboriously assembled on tape in the studio.

And "laboriously" is the word. This complete set has been almost twelve years in the making. An early form of the Third Brandenburg appeared in 1968 on the famous "Switched-On Bach" album. Over the years more than half of the music here has appeared in various forms on various other Carlos albums. Don't think that twelve years is enough time for the controversy over Bach/Carlos to settle down. The offensive cadenza has been removed from No. 3, but just try the andante of No. 2 for some real electronic creepy-crawlies. Most of this is music-box Baroque, and some people may find it, well, mechanical. But when Carlos and her producer/collaborator Rachel Elkind-Tourre do depart from the straight and narrow-a bit of ornamentation, a tempo variation, a mono track ping-ponged across the two channels—you wish they would go back to the clockwork click-track diddly-bums. One obvious area for rhythmic experimentation—steady time with a rhythmic stretch on top (as in modern jazz and pop)—is not explored, although I am certain it is the obvious direction for Baroque performance practice to move.

But I am too harsh on these "Switched-On Brandenburgs." People get off on these sounds, and I hardly feel like playing the role of bluestocking. Tremendous virtuosity and technique are involved in all this nervous neo-Baroque ear tickling, and who am I to say that such pleasantries are corrupt? Every age, it seems, must have its own Bach; perhaps this one is no better than we deserve. *E.S.*

BARTÓK: Duke Bluebeard's Castle. Dietrich Fischer-Dieskau (baritone), Duke Bluebeard; Julia Varady (soprano), Judith. Bavarian State Orchestra, Wolfgang Sawallisch cond. DEUTSCHE GRAMMOPHON 2531 172 \$9.98.

Performance: Not quite right Recording: Good but unexceptional

Just as in Debussy's Pelléas et Mélisande, which served as Bartók's model, language and music are bound together inseparably in Duke Bluebeard's Castle. It is gratifying that so many prominent singers have learned the opera's roles in the original Hungarian, and their laudable efforts have resulted in several first-class recordings. Singers alone, however, cannot guarantee authenticity without a conductor who is steeped in what Bartók called the "parlando rubato" style. This requires vocal delivery of Béla Bálazs' archaic poetry with the natural rhythms of speech, often transcending the rigidity of bar lines. It is the overall mastery of this national style that I miss in Wolfgang Sawallisch's otherwise well-organized and thoughtful direction. He paces the opera knowingly, builds effective climaxes, and displays a regard for textual nuances that is not always present in Pierre Boulez's recent reading (Columbia M 34217), but the ultimate degree of authenticity is lacking.

Both principals are also disappointing. Julia Varady pronounces Hungarian like a native (which she is, since she was born in the Hungarian-Romanian city of Oradea), but her way with the text is not particularly distinct or eloquent. She is, furthermore, a light soprano who must sometimes battle the orchestra, though much of Judith's music calls for the sensuous lushness of a mezzo. Bartók preferred a bass for the title role; he even transposed some high-lying passages for Mihály Székely in a 1936 Budapest revival (Székely's 1956 recording on Hungaroton 11001 is worth investigating). Though Dietrich Fischer-Dieskau's diction is clear enough, his timbre is too light, and that is a quality he cannot overcome by resorting to vehemence, as he does here. There is a note of petulance and occasional brutality in his characterization that I find alien to the Bluebeard of this opera.

My favorite modern version remains the London set (OSA 1158), in which both Christa Ludwig and Walter Berry are eminently right in vocal weight and timbre. Their conductor, the late István Kertész, favored a more deliberate pacing for the music than all his colleagues, but it is stylistically unassailable. London's recording, too, is superior in terms of vocal clarity and orchestral sumptuousness. The sound of this DG release is satisfactory, but not always transparent enough. G.J.

BARTÓK: Viola Concerto, Op. Posth. HIN-DEMITH: Der Schwanendreher, Concerto After Old Folk Songs for Viola and Small Orchestra. Daniel Benyamini (viola); Orchestre de Paris, Daniel Barenboim cond. DEUTSCHE GRAMMOPHON 2531 249 \$9.98.

Performance: Fair

Recording: Very good

These two viola concertos are among the most charming and grateful works in their respective composers' outputs. The Bartók, finished only in a sketch at the composer's death, was realized by his pupil Tibor Serly. The Hindemith, written for the composer to play himself, dates from the mid Thirties; it is *Gebrauchsmusik* or "music for use" (the term was closely associated with Hindemith) at its most attractive.

Daniel Benyamini is a good violist but not a great violist. The Bartók is particularly difficult music and not always entirely idiomatic for the instrument; Benyamini's struggle to play it is, now and then, quite palpable. Otherwise, though, these are reasonable-sounding performances. E.S.

RECORDING OF SPECIAL MERIT BEETHOVEN: Trio in C Major for Two

Oboes and English Horn, Op. 87; Variations in C Major on "Là ci darem la mano" for Two Oboes and English Horn (WoO 28). Heinz Holliger, Hans Elhorst (oboes); Maurice Bourgue (English horn). Sonata in F Major for Horn and Piano, Op. 17. Heinz Holliger (English horn); Jürg Wyttenbach (piano). PHILIPS 9500 672 \$9.98, © 7300 676 \$9.98.

Performance: Excellent Recording: Excellent

Double reeds were rampant in the Rococo and well into the Romantic period, and they came in a number of varieties. The main survivors are the oboe and bassoon, but between them was an alto instrument that's still around: the so-called English horn (from the French cor anglais, which is probably a corruption of cor anglé, meaning a horn with a bend in it). Beethoven's early set of Mozart variations and very respectable middle-period trio are neatly performed here by Heinz Holliger and company on oboes and English horn, the instruments for which they were written. However, the Op. 17 sonata was written for the French horn, with the cello as an alternative possibility. Holliger plays it very well indeed on the English horn, making this version, however "inauthentic," more than acceptable. Holliger, who is Swiss, introduced a very suave and beautiful French (almost American) oboe style to the German-speaking countries, where a heavier oboe sound has long predominated. He is doubtless the most brilliant and musical oboist in Europe today, and he is obviously the reason for this album-although his collaborators are cer-E.S.tainly all on his level.

(Continued overleaf)



JOHN CHEEK: promising young Devil

Choral Triumph for Digital

THE digital recording technique is triumphant in Telarc's new release coupling the Prologue to Boïto's opera *Mefisto*- fele and Verdi's Te Deum. The powerful choral and orchestral climaxes are undistorted, pianissimo passages emerge from absolutely silent grooves, and the dynamic contrasts are sometimes stunning. In addition, there is a depth to the sound that allows details to be brought out clearly and in good balance. The only disappointment is the awkward side break in the Mefistofele Prologue.

HE performances are also impressive. Robert Shaw (who was choral director under Toscanini in a 1954 recording of these two works) directs his excellent performing forces with firmness and sensitivity. The *Te Deum* (Verdi's last work, No. 4 of the *Quattro Pezzi Sacri*) is eloquently done, but the Prologue, led with measured dignity, is a bit pale dramatically for my taste. In terms of vocal weight, John Cheek may be too young to be a very commanding Devil, but he is a first-class singer of great promise—and the Atlanta Symphony sounds like a major orchestra. —*George Jellinek*

BOÏTO: Mefistofele: Prologue. VERDI: Te Deum. John Cheek (bass); Morehouse-Spelman Chorus; Young Singers of Callanwolde; Atlanta Symphony Chorus and Orchestra, Robert Shaw cond. TELARC **O** DG-10045 \$17.98.



Conductor Klaus Tennstedt

Tennstedt's Mahler Ninth: Best Yet?

THE very size of Mahler's Ninth Symphony seems to bring out the best in virtually every conductor and orchestra that records it. There are at least seven distinguished recorded performances, and each of them has its own special character. The particular accomplishment of conductor Klaus Tennstedt in his new Angel recording with the London Philharmonic is to bring the symphony's intellectual and lyrical aspects into balance with its searing expressionistic elements.

There have been more dramatic realizations than Tennstedt's of the death-haunted opening movement, but I have heard no other in which the rhythmic Ur motives have been so fascinatingly integrated into the whole structure. Most other performances convey more savagery and sarcasm in the Ländler and Rondo-Burleske movements, but none so wonderfully reveals—and with no loss of expressivity—the fine polyphonic details. Indeed, I was totally bowled over by the polyphonic tour de force of Tennstedt's reading of the Rondo-Burleske, which also manages—through phrasing, coloration, and dynamics—to bring out to superb effect the movement's perverse, phantasmagoric aspects.

The clearly intended climax and interpretive high point of this recording is in the finale, which has an almost chamber-musiclike transparency of texture. The movement takes the form of one long, carefully graded, perfectly sustained crescendo, which allows the climax, when it finally arrives, to make its impact with transcendent power. Tennstedt's careful attention in the early part of the finale to motivic relationships with the preceding movements is revelatory, and his realization of the longdrawn-out, otherworldly last pages defies verbal description; it simply must be heard.

The EMI recording is excellent, particularly in its capturing of fine details of line and texture. Some other recordings, notably those conducted by Carlo Maria Giulini (Deutsche Grammophon) and Wyn Morris (Peters International), may be marginally superior in coping with Mahler's huge peaks of full-orchestral sound, but this one is more than adequate in such passages. The important thing in any case is Tennstedt's vision of Mahler's score as a whole, which has produced what is probably the most spiritualized realization of it that we are likely to have on records for some time to come. -David Hall

MAHLER: Symphony No. 9, in D Major. London Philharmonic Orchestra, Klaus Tennstedt cond. ANGEL SZB-3899 two discs \$17.96, © 4Z2S-3899 \$17.96.

BERG: Chamber Concerto: Adagio (see SCHOENBERG)

BRAHMS: Sonatas Nos. 1 and 2 for Clarinet and Piano, Op. 120. Bruce Nolan (clarinet); Robert Spillman (piano). GOLDEN CREST RE-7094 \$6.98.

Performance: Restrained rhapsody Recording: Very good

Brahms wrote these two sonatas for clarinet and piano (they are also sometimes performed on viola and piano) toward the end of his life; they were the last chamber pieces he composed. He wrote them for the clarinetist Richard Muhlfeld, for whom he had earlier written his Clarinet Trio and Clarinet Quintet. Both sonatas are somber, contemplative works that seem to lament the passing of the many friends Brahms had lost and, perhaps, the imminent end of his own life. Nonetheless, the composer's music was never more songful than it is here, especially in the opening movement of the second sonata, and even the melancholy brooding on things that were and are no more is relieved by unexpected passages in a less somber mood. Pianist Daniel Barenboim has recorded highly perceptive readings of these works: the clarinet versions with Gervase de Peyer for Angel (now available on Seraphim) and the viola versions with Pinchas Zukerman for Deutsche Grammophon. The playing here by clarinetist Bruce Nolan and pianist Robert Spillman cannot really compare with those landmark performances, but there is a pure and unaffected quality in the approach of these two young Americans that is refreshing. They present with clarity, forbearance, and precision a music that can suffer from too emotional a treatment. P.K

BRITTEN: Serenade for Tenor, Horn, and Strings, Op. 31. Robert Tear (tenor); Dale (Continued on page 112)


Pachelbel's "Canon in D Major" is yours for only \$1! with your FREE-NO PURCHASE OBLIGATION-membership

Dear Friend of Great Music,

To acquaint you with the Society's musical fare and recording program, we'd like to send you an outstanding record that has captivated thousands of Americans FOR ONLY \$1.00!

It is rare that a recording is made that is truly "out of this world" with the ethereal qualities of music, performance and sonics ideally presented. But this recording is, indeed, OTW, embodying all these characteristics!

The Society is happy to offer a recording of such captivating power that Hamlin's story of the Pied Piper pales! All who hear this recording simply MUST have it and go to great lengths to get it. When radio stations play this recording, their phones are tied up for hours. A New York City station had more than 400 calls when they played this recording! A San Francisco station had a similar experience.

While this recording is enrapturing and delightful throughout, the first work, CANON IN D MAJOR, is so mesmerizing that hearers are overcome. Your writer was so hypnotized that I spent well over an hour repeating the first work before I even bothered to go to the others when I first listened to the record!

But the other works are transporting as well. The performance of the orchestra could not possibly be excelled and the trumpet playing is so spectacular that it is, in a word, breathtaking!

Certainly you'll treasure this recording as your favorite. You'll insist that all your friends hear it in the confidence that they will be grateful that you have introduced them to such a "revelation" in music.

THIS SUPERB RECORD IS YOURS FOR ONLY \$1.00 Send for it TODAY!

MHS 1060 JOHANN PACHELBEL (1653-1706) CANON In D Major; PARTIA No. VI In B-flat Major; PARTIE in G Major JOHANN FRIEDRICH FASCH (1688-1758) CONCERTO In D Major for Trumpet, 2 Oboes, Strings and Continuo SINFONIA in G Major; SINFONIA in A Major Maurice ANDRÉ, Trumpet Pierre PIERLOT and Jacques CHAMBON, Oboes JEAN-FRANÇOIS PAILLARD CHAMBER ORCHESTRA Jean-François PAILLARD, Conductor

GET THE SOCIETY'S CATALOG FREE!

With your introductory record, the Society will include its catalog of about 3.000 recordings.

Musical Heritage Society issues each year about 200 new recordings of the music of such great masters as Albinoni, the Bachs. Beethoven. Berlioz. Buxtehude. Charpentier, Corelli, Couperin, Gluck. Handel, Haydn, Lully. Monteverdi. Mozart, Pergolesi. Purcell, Scarlatti. Schubert. Telemann. Torelli, Vivaldi, and many others. Its recordings cover all musical periods: Medieval. Renaissance. Baroque. Rococo. Classical, Romantic, and Modern. Over 200 of its recordings have been honored with the coveted GRAND PRIX DU DISQUE and other international awards.

MUSIC THAT CAPTIVATES!

Even though the Society's records are of serious music, it has some that are "hits!"

Take MHS 1100 in our catalog. for instance. When it was played over a pops radio station frequently for a short period of time. over 80,000 records were sold as a result!

Or consider the Society's MHS 1060. This record, when played by radio stations, results in an avalanche of calls that tie up their switchboard for hours afterwards!

From among the Society's 3,000 records there must be many that will captivate you.

THE LARGEST RECORDING PROJECTS IN HISTORY HAVE BEEN ACCOMPLISHED BY THE MUSICAL HERITAGE SOCIETY!

The Society's recording feats are the sensation of the record industry! These are some of our notable accomplishments:

• The Society was the first to issue all 107 of HAYDN'S Symphonies. They are on 49 records (MHS 201 through MHS 249).

• The Society has issued on 25 records ALL that BACH composed for Organ.

• The Society has issued many complete works: ALL the Sonatas. Quartets, Symphonies of BEETHOVEN: ALL MOZART'S Piano Concertos and Quartets; ALL of SCHUMANN'S solo Piano Works: ALL of DEBUSSY's and RAVEL's solo Piano Works and much more!

Most of the Society's records are of works recorded FOR THE FIRST TIME! Manufactured to the highest quality standards of which the recording industry is capable, the Society's records are perhaps the finest in the country.

HOW THE SOCIETY OPERATES

The Society's recordings are not sold in stores. They are offered directly through the MUSICAL HERITAGE REVIEW magazine at 3 week intervals (18 times a year). As a member, you'll enjoy substantial savings. Member prices are \$4.45 per LP and \$4.95 per cassette, plus postage and handling.

When the Society receives your request, it sets up an account in your name and will begin sending your free one-year subscription to MUSICAL HERITAGE REVIEW for your edification and delight. There is NO PURCHASE OBLIGATION and you may discontinue the complimentary subscription at any time. As a subscriber 2 (sometimes 3) outstanding selections will be scheduled for shipment to you from each issue--but there is no obligation to accept them...order only those you want when you want them!

A special response form will be enclosed with each Review...and you may use it to order or reject any selections simply by mailing it by the date specified. And if you want only the scheduled selections, you need do nothing-they will be shipped to you automatically. What's more, you'll have at least 10 full days in which to make your decision--if you ever have less time than that, just return the special selections at our expense, for full credit.

ONE OF THE TRULY GREAT RECORDINGS OF THIS DECADE! "A REVELATION IN MUSIC!"

To receive this splendid record, simply mail the request form provided below along with \$1.00. We're confident that you'll so treasure this trial disc that you'll be moved to acquire more of the Society's fine recordings.

All applications are subject to review before membership is granted.

	,,			, .
	RITAGE SOCIET Tinton Falls, N.			0071107
Please send m Master Catalog program and se I may cancel at my part. My p	p. You may enter et up an account any time, and th ayment for this N IN D MAJOR	ANON IN D N my subscripti in my name. H here is absolut order is enclos IN THIS TY	on to the S lowever, it ely no puro sed.	
ADDRESS				

Send my FUTURE selections in:
Records
Cassettes
OFFER OPEN TO NEW MEMBERS ONLY
Offer Valid Within the Contiguous United States Only

Clevenger (horn); Chicago Symphony Orchestra, Carlo Maria Giulini cond. Les Illuminations, Op. 18. Robert Tear (tenor); Philharmonia Orchestra, Carlo Maria Giulini cond. DEUTSCHE GRAMMOPHON 2531 199 \$9.98, © 3301 199 \$9.98.

Performance: **Big and bold** Recording: **Excellent**

Robert Tear, who is, after all, the soloist in both works here, gets rather short shrift in the billings. Carlo Maria Giulini's photograph alone is on the cover, and his name is nearly as big as Britten's, while Tear's, Dale Clevenger's, and those of the two orchestras appear in the smallest letters of all. But it must have been Giulini's decision, surely, to give these works the "symphonic" cast they have in these performances: here both seem bigger and more extroverted than they do in the similar coupling with Peter Pears, Barry Tuckwell (in the Serenade), and the composer conducting (London OS 26161), The music can take this bold, brisk approach well enough, but it becomes a different sort of experience from the intimate one we are accustomed to.

Tear often seems to be imitating Pears, and in this particular repertoire that must be hard to avoid doing, but he is more impressive in his own right on this record than in anything I can remember hearing earlier, particularly in *Les Illuminations* (which was not written for Pears, as many assume, but was introduced by the soprano Sophie Wyss). Most impressive of all, though, is the Chicago Symphony's glorious first horn, Dale Clevenger, whose stunning account of his demanding part in the Serenade must inspire something close to awe on the part of his colleagues as well as among listeners who have never attempted to play the instrument. The string choirs of both the American and English orchestras are at their most brilliant too, and Deutsche Grammophon's engineers have come through with outstanding sound. Much as there is to admire here, though, the uniquely authoritative and hardly less brilliant Pears/Britten disc still affords the deeper pleasure. R.F.

DEBUSSY: Prélude à l'Après-midi d'un Faune (see SCHOENBERG)

RECORDING OF SPECIAL MERIT

DVOŘÁK: The Jacobin. Karel Průša (tennor), Count Vilem; Vaclav Zítek (baritone), Bohus; Rene Tucek (baritone), Adolf; Marcela Machotková (soprano), Julie; Karel Berman (bass), the Burgrave; Beno Blachut (tenor), Benda; others. Kantilena Children's Chorus; Kuhn Mixed Chorus; Brno State Philharmonic Orchestra, Jiří Pinkas cond. SUPRAPHON 1112 2481/3 three discs \$26.94 (from Qualiton Records, Ltd., 39-28 Crescent Street, Long Island City, N.Y. 11101).

Performance: Idiomatic Recording: Favors voices

I must admit that I had never heard of *The Jacobin* before this recording arrived, but it

is described in the reference books as Dvořák's most successful and popular opera after *Russalka*—in Czechoslovakia at least. I can quite understand why. This is your basic ethno-folk-national life-in-a-village comic opera. It is certainly in a class with *The Bartered Bride* and even a mite more serious, more high-minded.

Unlike Russalka, which is high-Romantic music drama written under Wagnerian influence, The Jacobin stays close to the forms and melodies of folk song and dance. The local count's only son is accused of being a "Jacobin"-that is, a radical who favors overthrowing the nobility, freeing the serfs, and redistributing the land-and is therefore disinherited. But this is comic opera. Eventually the trickery of the scheming burgrave and evil Cousin Adolf is exposed, and everything is set to rights. Somewhere along the way, the political overtones of the opening are dissipated. My guess is that the final act was rather heavily cut-whether by the Austro-Hungarian censors of 1890 or more recent editors I cannot say. But no one, I'm sure, listens to The Jacobin for its political sophistication. Love of country is its real message, and that is expressed with joy, charm, tenderness, and nostalgia. It is impossible not to like this work, and I am surprised that it has made so little headway outside its homeland.

The recorded performance is, appropriately, a provincial Czech one. Brno, the home town of Léoš Janáček, might be described as the metropolis of provincial Czechoslovakia. No one would confuse the

Total control for the total system.

For those who want comprehensive control over their stereo system, MXR offers its System Preamp.

The MXR System Preamp provides the ultimate in versatile, distortion-free system control. For the first time, the home stereo enthusiast has the signal routing flexibility previously restricted to recording engineers, with exceptional sonic integrity.

The System Preamp lets you route two simultaneous signal sources independently to a monitor channel, tape output, or power amp and speakers. A Mix control blends the two signals and permits fading from one source to another, and a versatile instrument input enables electronic instruments and microphones to be amplified and blended with program material.

The MXR System Preamp is housed in an attractive, black anodized enclosure with solid walnut end pieces and 3½"(h)x19"(l)x6"(d) dimensions for convenient placement in any stereo set-up. Rack ears are also available. Like all MXR products, the System Preamp reflects the latest advances in American audio technology. This innovative new preamplifier has been designed with imagination to provide the ultimate in flexible control for the creative stereo enthusiast.

MXR Innovations, Inc., 740 Driving Park Ave., Rochester, New York 14613, (716) 254-2910



Brno Opera with one of the big, star-studded international companies, but this is a highly idiomatic and enjoyable performance. (Excellent local repertory opera is, in fact, far more significant to the continuing development of opera and music theater than most of the grander jet-set efforts of the famous houses.) The singing-vocal portrayals of the characters I would call it-is charming and affecting on a uniformly high level. As might be expected, the choral singing is the high point. The orchestral playing usually sounds better than adequate, but it is not favored at all in this recording. A constant spotlight on the voices undoubtedly promotes clarity of language-obviously an important factor for a Czech audience. Those of us who don't know the language must make do with a libretto in "Opera English"; there are no original texts, and no further information about the work is provided.

In spite of such shortcomings, I recommend this recording. Both the music and the performance everywhere give off a heady mixture of warmth, involvement, love, and musicality. Who could ask for E.S.more?

FALLA: Suite Populaire Espagnole (see SARASATE)

RECORDING OF SPECIAL MERIT

FISCHER: Pièces de Clavessin, 1696: Praeludiums VI and VIII; Chaconne. Le Parnasse Musical, 1738: Uranie; Euterpe. William Christie (harpsichord). HARMONIA MUNDI HM 1026 \$8.98 (from Brilly Imports, 155 North San Vicente, Beverly Hills, Calif. 90211).

Performance: Beautiful Recording: Perfect

Thanks to the efforts of William Christie, Johann Caspar Ferdinand Fischer (d. 1746) is alive and well again through his music. Although Fischer is highly praised in music histories and cited as an important influence on J. S. Bach, his music has heretofore generally remained on library shelves, seldom being realized in actual sound. Stylistically, his Le Parnasse Musical, a collection of nine suites each dedicated to one of the muses, constitutes the missing link between Froberger, who brought the style of the French clavecinists to Germany, and Bach, who brought that style to its height in his keyboard suites. Closer to the French style than comparable works of the Leipzig master, Fischer's preludes are freer in texture and frequently resort to arpeggiations of rich and compelling chord progressions. The suites are grandiose in their number of movements; the dances are utterly charming, the chaconnes and passacaglias hypnotic in their ingenious accumulation of figurations, which drive to powerful climaxes worthy of Bach.

Christie is a superb musician who plays for musical values rather than brilliance. Although he observes all of the French mannerisms of rhythmic alteration and articulation, he brings a long legato line and a warmth to the music that are so frequently lacking in this style of playing. Rhythmically, he understands the difference between the rhapsodic freedom required in the unmeasured preludes and the controlled rhythms required by the dance movements. His vitality is never strait-jacketed nor his freedom chaotically overextended. It is the rare harpsichordist who can find the right balance between these two extremes. This disc is a very important addition to the catalog. S.L.

GOUNOD: Petite Symphonie. D'INDY: Chansons et Danses, Op. 50. Maurice Bourgue Wind Ensemble. NONESUCH H-71382 \$5.98.

Performance: Idiomatic Recording: Agreeable

Apparently the only other version of Gounod's charming Petite Symphonie for nine

BEYER **GET YOU** CLOSER **TO THE** SOURCE

winds available at present is the one played by Marlboro Festival forces on a disc issued by the Marlboro Recording Society (MRS-8) and not listed in Schwann. Although I feel the first-rank American wind players outperform their French colleagues (all members of the Orchestre de Paris) at various points in the work, there is not a great deal in it, and the lower price, greater accessibility, and imaginative coupling combine to make the new Nonesuch release the more attractive proposition.

The labeling and documentation are not too helpful in introducing us to Vincent d'Indy's Chansons et Danses for seven winds. It is hardly crucial that the opus number is not listed on the labels or the

As manufacturers of the world's most respected performance, studio and broadcast HEADPHONES microphones, we have an inti-mate knowledge of how music sounds at the source. And because we know how music sounds when it's being created, we know how it should

> sound when it reaches your ears. That's why Beyer headphones are the most faithful reproducers of music you can buy. Whether it's our most expensive model - the ET1000 Electrostatic Supraaural stereo headphones - or our least expensive model - the DT 302, the lightest full-fidelity stereophone you can

buy - you'll find they have uncommon fidelity.

> To find out why Beyer has such an awesome appeal to musicians, engineers, and audiophiles throughout the world, visit your Beyer dealer. Listen to our full line of high-performance headphones. Then you'll know why Beyer is better.



BEYER DYNAMIC, INC. 5-05 Burns Avenue, Hicksville, NY 11801 • (516) 935-8000 In Canada, H. Roy Gray, Ltd.

DT302





OCTOBER 1980



HAVE decided to believe in Santa Claus after all. Just two years ago in these pages I reported on a startling performance of Mozart's A Minor Sonata No. 8 (K. 310) by pianist Alicia de Larrocha at Lincoln Center's twelfth annual Mostly Mozart Festival, calling it the most stunning Mozart playing I had ever heard and hoping for its early incarnation on disc-and here it is. Thank you, Santa. Mme. de Larrocha herself has characterized the sonata as the finest Mozart ever wrote, perhaps the finest anyone ever wrote. Without in any way meaning to suggest that pure music carries with it an implicit, subnotational, easily interpreted biographical "program," it is

jacket headings (it turns up parenthetically in the annotation), but the instrumentation is not specified. The line-up is: flute, oboe, two clarinets, horn, and two bassoons. The music is pleasant enough, but hardly irresistible. The first section (*Chansons*) opens rather like the *Siegfried Idyll*, and there are further Wagnerian echoes; the second begins like a paraphrase of the "Ride to the Abyss" in *The Damnation of Faust* but is really pastoral in nature and ends quietly. The Parisians play both works as if they believe in them, and the recorded sound is quite agreeable.

I'm still wondering, though, when someone will get around to recording D'Indy's beautiful but virtually unknown Second Symphony. It has been years since even the *Istar* Variations, his best-known orchestral work, has been represented on any domestic label. R.F.

GRANADOS: Spanish Dance No. 5 (see SARASATE)

E. HALFFTER: Danza de la Gitana (see SARASATE)

RECORDING OF SPECIAL MERIT

HANDEL: Trio Sonatas for Two Oboes and Continuo: No. 1, in B-flat Major; No. 4, in F worth noting that the composer wrote this sonata in Paris in 1778 shortly after the death of his mother; the miracle of the second-movement Andante, anguished and moving, surely suggests that there were serious personal matters on his mind at the time. If you love the piano, if you love Mozart, if you love Alicia de Larrocha, this superb recording titled "Mostly Mozart Volume Four" is just as surely for you.

-William Anderson

MOZART: Piano Sonatas in E-flat Major (K. 282) and A Minor (K. 310). BEETHO-VEN: Bagatelles Nos. 1-7, Op. 33. Alicia de Larrocha (piano). LONDON CS 7179 \$8.98.

Major; No. 5, in G Major; No. 6, in D Major. Ronald Roseman, Virginia Brewer (oboes); Donald MacCourt (bassoon); Edward Brewer (harpsichord). NONESUCH H-71380 \$5.98.

Performance: Exquisite Recording: Excellent

If Handel wrote these sonatas at the age of ten-for which there is more than a little evidence-he certainly outstripped even Mozart in precocity. Chances are he reworked them later on in life, but, be that as it may, this is chamber music of the highest order, full of daring harmonies, ingenious counterpoint, and exuberant rhythms. The sonatas transcend their historic period and must be considered on a par with the finest chamber music of Mozart, Haydn, Beethoven, and Brahms. The performers here, who as yet have no collective name, do them full justice, too. The use of a bassoon for the bass line is felicitous, and the sonority of two velvety oboes with a prickly harpsichord is wonderfully sensual. Although Baroque articulation is not used, rich ornamentation has been added. The sinuous phrases are carefully molded, and the ensemble and balance are perfect. One could not ask for more.

It is also edifying to see that Nonesuch is still presenting us with discs of top quality, although the A & R credit on the jacket does inform us that this recording is part of the Tracey Sterne legacy. S.L.

HAYDN: String Quartet in D Major, Op. 20, No. 4; String Quartet in G Minor, Op. 74, No. 3. Guarneri Quartet. RCA ARL1-3485 \$8.98, © ARK1-3485 \$8.98.

Performance: Fastidious Recording: Well balanced

The D Major is the best known of the six so-called "Sun" Quartets that make up Haydn's Op. 20; the G Minor is the best known of the much later demi-dozen composed for Count Apponyi and published in two sets of three (Opp. 71 and 74). Anyone who wants these two works alone will find a good deal to enjoy in this convenient coupling-but a good deal less, I feel, than in performances offered in some of the integral recordings of the respective groups. The playing here is fastidious, the tempos well judged, but, as in so many Guarneri Quartet recordings, it has what continues to strike me as a dryish character (not a fault of the recording itself, which is rich and full as well as exceptionally well balanced). I miss the warmth, the wit, and the sheer heartiness Haydn wrote into these works. The Juilliard Quartet's recent three-disc set of the complete Op. 20 (Columbia M3 34593) and the Amadeus' of Opp. 71 and 74 (Deutsche Grammophon 2709 090) show how it should be done. R.F.

HAYDN: Symphony No. 97, in C Major; Symphony No. 98, in B-flat Major. New York Philharmonic, Leonard Bernstein cond. CBS M 35844 \$8.98, © MT 35844 \$8.98.

Performance: No. 97 first-rate Recording: Very good

Leonard Bernstein's reading of Haydn's festive Symphony No. 97 is tops. The tempos are well chosen (it's especially important to keep the adagio moving), the balance between the winds and strings is well worked out, and all the amusing effects in the menuetto and final *presto assai* are neatly underscored. This is, in fact, one of the finest readings of this symphony currently available.

The Symphony No. 98 is, however, another story. In the opening movement Bernstein first sets a rather slow tempo for an allegro, then speeds it up and keeps fooling around with it. The opening of the exposition repeat is quicker than the first time, a most unsettling experience. In the adagio there are ensemble problems in the accompanying figurations and some ragged entrances. Despite Haydn's allegro marking for the menuetto, Bernstein nearly kills it with an allegretto tempo, and the trio simply limps. The finale depends on a devilish contrast between an almost string-quartet texture and the full orchestra; the two elements must be held together in order to reveal Haydn's splendid architectural plan. Bernstein does not manage to hold them together-he lets the brass take over whenever it gets a chance-and the movement falls apart. A pity. S.L.

HAYDN: Symphony No. 100, in G Major ("Military"). Mostly Mozart Festival Or-(Continued on page 116)



That's the Jensen Car Stereo Triax[®]II. That's the thrill of being there.

Power is right! 100 watts! Now all the energy and intensity that went into the original performance comes through the Jensen Triax II 3-way speaker.

This incredible 100 watt capability gives the Triax II an unparalleled clarity of sound throughout the entire spectrum.

Check out what else the Triax II has to offer.

A newly designed 20 oz. magnet structure coupled with a high temperature, high power $1\frac{1}{2}$ " voice coil allows higher listening levels with less distortion. And with the new high power car stereo units available today, that's important.



The Triax II is also fully compatible with the advanced bi-amplified power sources for outstanding clarity and separation.

So go to the concert. Hear the Jensen Triax II. That's the thrill of being there.



CIRCLE NO. 29 ON READER SERVICE CARD

® "Triaxial" and "Triax" are registered trademarks identifying the patented 3-way speaker systems of Jensen Sound Laboratories. (U.S. Patent #4,I22,315.)





Goodbye to "snap, crackle and pop". Scotch⁴⁰ DustGuard mat suppresses static, helps keep record surface dust-free, in use. You get better performance, longer-lasting records. Your record collection needs DustGuard for true, pure sound. At local record and hi-fi stores.

Scotch ® Record Care. The truth comes out.





Your National Headquarters for Name Brand Electronics by Mail

* Full Manufacturer Guarantee Applies to All Sales!!

★ Orders Shipped in Factory-Sealed Cartons— Most Within 24 Hours ★ Multi-Million \$\$\$ Inventory

TOP DISCOUNT AUDIO

1150 N Powis Rd., West Chicago, IL 60185 SR-10 TOLL FREE 800-323-2518 MasterCharge and VISA Welcome Call or Write for the LOWEST PRICES Around!

MR MS______(Erst) (Initial) (Last)

(Number and Street)

(City) (State) (Zip Code) Phone Order Hours: M-W-F 8AM-4:30PM, T-Th 8AM-8PM, Sat. 9AM-Noon WF (ARRY THE TECHNICS PR0 SERIES—Call for Quotes!

In Illinois, Alaska & Hawaii call (312) 293-1825 CIRCLE NO. 63 ON READER SERVICE CARD chestra, Johannes Somary cond. VAN-GUARD ● VA-25000 \$12.98.

Performance: Good Recording: State-of-the-art

The two sides of this record derive from different tape masters, one digital and the other analog, of the same performance as recorded through the same microphone setup and identically mixed on the same console. It is a delightful conceit, and the variables have obviously been reduced to the minimum, but the release does not necessarily provide an answer to the question of the relative advantages, from a listener's perspective, of the two recording technologies. The trouble is that one is faced with the impossible need to discriminate between degrees of perfection.

The recording locale, the Masonic Temple on 23rd Street in New York City, has an ideal acoustic ambiance for the modest-size Mostly Mozart Festival Orchestra, and in consequence the presence, reverberation characteristic, and coloration are just right in both recordings. The balances also are flawless, allowing the celebrated percussion-battery episodes in the second and last movements (whence the nickname "Military") to come across with splendid though unexaggerated presence and Klang. I listened to the disc the first time around using electrostatic headphones to eliminate the factor of room coloration, and I was able to detect a slight qualitative difference between the digital and analog sides: the former seemed more "open" with respect to the upper partials of the frequency spectrum, but the latter seemed a bit warmer in overall ambiance. There was no detectable difference in dynamic range. I then arranged a blind playback using loudspeakers in a fairly warm-toned, all-wood-raftered 20 x 30-foot room. I didn't let myself know which side was playing at any one time, and I found it impossible to tell from listening.

As for the performance, Johannes Somary's reading is imbued with elegance and vitality but lacks the personal character that some other renowned conductors have brought to this music. I also regret that he did not use the classic right/left setup for the first and second violins.

In any case, I compliment Vanguard on their excellent realization of a provocative idea—but I trust they will not feel it necessary to produce all their future audiophile releases in this dual digital/analog format! D.H.

HERTEL: Concerto á 6 for Trumpet, Oboe, and Strings (see ALBINONI)

HINDEMITH: *Der Schwanendreher* (see BARTÓK)

HUMMEL: Concerto in E-flat Major for Trumpet and Orchestra (see ALBINONI)

D'INDY: Chansons et Danses, Op. 50 (see GOUNOD)

RECORDING OF SPECIAL MERIT

MAHLER: Songs of a Wayfarer; Five Rückert Songs; Two Songs from Des Knaben Wunderhorn. Frederica von Stade (mezzo-soprano); London Philharmonic Orches-(Continued on page 119)



CIRCLE NO. 27 ON READER SERVICE CARD

SUPER VIDE	O SPECIALS
New Sony 5600 w/Be	etascan
PV 3200 Port. 6 Hr. V PK 700 Color Camer	/HS
PV 1200 VHS 1 Day F	rog649.00
JVC 6700 7 Day Prog	
VHS up to 6 hrs	
VK 250 RCA	
L-500 9.95 L-830	L-750 14.95
SONY TRINITRON COLOR TV 5" 341.95	SONY.
12" 345.50 15" 382.50 15" Remote 467.50	ICF-7600
17" 430.00 17" Remote 497.50	7 Band Portable
19" 429.00 19" Remote 555.50	Radio Only \$109.95 Technics STEREO RECEIVERS
26" CALL 26" Remote 894.00	SA 80 15W pr/chn. 109.95 SA 202 30W pr/chn. 149.95
1945579.001545484.00	SA 303 40W pr/chn. 187.95 SA 404 50W pr/chn. 234.95 SA 500 55W pr/chn. 239.95
Panasonic 4900 10-Band Badio	
\$334.50 Penadonic	Complete selection of NAME BRAND CAR STEREOS &
Special MSIX	SPEAKERS AT HUGE DISCOUNTS (Write for our price sheet.)
Purchase \$53.50	We're your Sony, Panasonic, Pioneer, Sanyo, Jensen, Craig &
CASSETTE TAPES SPECIALS	JVC HQ. FREE CATALOG! featuring-Cam-
TDK SAC-60 2.28 TDK SA C-90 2.89	era, Audio, Video, Electronics, Car Stereos, Telephone Answering & Distating Equint Watches Calcula
Maxell UDXL 1 or 2 C60 2.49	Stereos, Telephone Answering & Dictating Equipt, Watches, Calcula-
Sony C- 60	Stereos, Telephone Answenng & Dictating Equipt. Watches, Calcula- tors & much more all at amazing now prices. Circle Reader No
Sully C-120	now process officie fields, field
	67 West 47th St.
	nly Call Toll Free
	00-221-5858 Ext. 73
-Shipping add'l, minimun	n \$4.95 [limited quantities]—
CIRCLE NO. 21 ON F	EADER SERVICE CARD
MOVIN	G?
Please let us know 8 you won't miss a sin REVIEW.	weeks in advance so gle issue of STEREO
Please let us know 8 you won't miss a sin- REVIEW. Attach old label when new address in space your mailing label wh about you subscription	weeks in advance so gle issue of STEREO re indicated and print
Please let us know 8 you won't miss a sim REVIEW. Attach old label when new address in space your mailing label wh about you subscription promptly. Write to: P.O. Box 277 giving the foll	weeks in advance so gle issue of STEREO re indicated and print provided. Also include henever you write us h. It helps us serve you 1, Boulder, CO 80322, owing information:
Please let us know 8 you won't miss a sim REVIEW. Attach old label when new address in space your mailing label wh about you subscription promptly. Write to: P.O. Box 277 giving the foll	weeks in advance so gle issue of STEREO re indicated and print provided. Also include henever you write us h. It helps us serve you 1, Boulder, CO 80322,
Please let us know 8 you won't miss a sin REVIEW. Attach old label when new address in space your mailing label wh about you subscription promptly. Write to: P.O. Box 277' giving the foll Change a Extend subscription 1 year (12 issues) \$9	weeks in advance so gle issue of STEREO re indicated and print provided. Also include henever you write us h. It helps us serve you 1, Boulder, CO 80322, owing information: address only Enter new subscription .98 Bill me later
Please let us know 8 you won't miss a sin REVIEW. Attach old label when new address in space your mailing label wh about you subscription promptly. Write to: P.O. Box 277' giving the foll Change a Extend subscription 1 year (12 issues) \$9 Payment enclosed (issue-13 issues in a	weeks in advance so gle issue of STEREO re indicated and print provided. Also include henever you write us h. It helps us serve you 1, Boulder, CO 80322, owing information: address only Batter new subscription .98 Bill me later You get 1 extra BONUS III)
Please let us know 8 you won't miss a sim REVIEW. Attach old label when new address in space your mailing label wh about you subscription promptly. Write to: P.O. Box 277' giving the foll Change a Extend subscription 1 year (12 issues) \$9 Payment enclosed (issue-13 issues in a NEW ADDF	weeks in advance so gle issue of STEREO re indicated and print provided. Also include ienever you write us h. It helps us serve you 1, Boulder, CO 80322, owing information: address only
Please let us know 8 you won't miss a sim REVIEW. Attach old label when new address in space your mailing label wh about you subscription promptly. Write to: P.O. Box 277' giving the foll Change a Extend subscription 1 year (12 issues) \$9 Payment enclosed (issue–13 issues in a NEW ADDF Name	weeks in advance so gle issue of STEREO re indicated and print provided. Also include henever you write us h. It helps us serve you 1, Bouider, CO 80322, owing information: address only Enter new subscription .98 Bill me later You get 1 extra BONUS (III) RESS HERE e print)
Please let us know 8 you won't miss a sine REVIEW. Attach old label when new address in space your mailing label wh about you subscription promptly. Write to: P.O. Box 277 giving the foll	weeks in advance so gle issue of STEREO re indicated and print provided. Also include henever you write us h. It helps us serve you 1, Boulder, CO 80322, owing information: address only Batter new subscription .98 Bill me later You get 1 extra BONUS IIII) RESS HERE
Please let us know 8 you won't miss a sim- REVIEW. Attach old label when new address in space your mailing label wh about you subscription promptly. Write to: P.O. Box 277' giving the foll Change a Extend subscription 1 year (12 issues) \$9 Payment enclosed (issue-13 issues in a NEW ADDF Name	weeks in advance so gle issue of STEREO re indicated and print provided. Also include nenever you write us h. It helps us serve you 1, Boulder, CO 80322, owing information: address only Benter new subscription .98 Bill me later You get 1 extra BONUS III) RESS HERE
Please let us know 8 you won't miss a sim REVIEW. Attach old label when new address in space your mailing label wh about you subscription promptly. Write to: P.O. Box 277' giving the foll Change a Extend subscription 1 year (12 issues) \$9 Payment enclosed (issue-13 issues in a NEW ADDF Name (please Address. City State	weeks in advance so gle issue of STEREO re indicated and print provided. Also include henever you write us h. It helps us serve you 1, Boulder, CO 80322, owing information: address only Bell me later You get 1 extra BONUS (III) RESS HERE e print) Apt. Zip Canada. \$5 a year (cash payment in
Please let us know 8 you won't miss a sim REVIEW. Attach old label when new address in space your mailing label wh about you subscription promptly. Write to: P.O. Box 277' giving the foll Change a Extend subscription 1 year (12 issues) \$9 Payment enclosed (issue-13 issues in a NEW ADDF Name (please Address. City State Foreign postage Add \$1 a year for U.S. currency only for other count Please allow 30 to 60 days for dein	weeks in advance so gle issue of STEREO re indicated and print provided. Also include henever you write us h. It helps us serve you 1, Boulder, CO 80322, owing information: address only Beller new subscription .98 Bill me later You get 1 extra BONUS (III) RESS HERE e print) Apt
Please let us know 8 you won't miss a sim REVIEW. Attach old label when new address in space your mailing label wh about you subscription promptly. Write to: P.O. Box 277' giving the foll <u>change a</u> Extend subscription 1 year (12 issues) \$9 Payment enclosed (issue-13 issues in a NEW ADDF Name (please Address. City State Foreign postage Add \$1 a year for U.S. currency only for other count Please allow 30 to 6 days to reliv	weeks in advance so gle issue of STEREO re indicated and print provided. Also include henever you write us h. It helps us serve you 1, Boulder, CO 80322, owing information: address only Benter new subscription .98 Bill me later You get 1 extra BONUS III) RESS HERE e print) Apt. Zip Canada, \$5 a year (cash payment in rise outside U.S. and passessions. rery of first issue
Please let us know 8 you won't miss a sim REVIEW. Attach old label when new address in space your mailing label wh about you subscription promptly. Write to: P.O. Box 277' giving the foll	weeks in advance so gle issue of STEREO re indicated and print provided. Also include henever you write us h. It helps us serve you 1, Boulder, CO 80322, owing information: address only Bells me subscription 98 Bill me later You get 1 extra BONUS (11) RESS HERE e print) Apt
Please let us know 8 you won't miss a sim REVIEW. Attach old label when new address in space your mailing label wh about you subscription promptly. Write to: P.O. Box 277' giving the foll	weeks in advance so gle issue of STEREO re indicated and print provided. Also include henever you write us h. It helps us serve you 1, Bouider, CO 80322, owing information: address only Belter new subscription 98 Bill me later You get 1 extra BONUS (III) RESS HERE e print) Apt. Canada, S5 a year (cash payment in ries outside U.S. and possessions. very of first issue. D LABEL SOCA

State_

_Zip___

tra. Andrew Davis cond. CBS M 35863 \$8.98. © MT 35863 \$8.98.

Performance: Fresh and lovely Recording: Excellent

Mahler's anguished music, with its unique blend of naïveté and sophistication, finds an ideal interpreter in Frederica von Stade-of course, the same observation about this remarkable artist is equally applicable to the music of Mozart, Rossini, and Massenet, composers far removed from Mahler's world.

What we find here is, in general, a lightness of tone compared with the ripe contralto-like timbres we are accustomed to in these songs, an understatement of passion in the Songs of a Wayfarer, and a childlike simplicity in the two songs from the Wunderhorn cycle, Wer Hat Dies Liedlein Erdacht? and Rheinlegendchen. Words are clearly articulated and sensitively colored for expression, and musical details are brought out with the accuracy of a master instrumentalist. The apparent "simplicity," however, is deceptive: these are carefully studied interpretations, and at times artifice triumphs over spontaneity. In Rheinlegendchen, for instance, there are "cutesy touches that I feel an artist of such natural charm need not employ, but other listeners may find the rendition enchanting. Certainly, the recital abounds in vocal felicities. I would single out as special delights the effortlessly executed figurations in Wer Hat Dies Liedlein Erdacht? and the exquisite legato phrasing of the lines "Liebst du um Liebe, o ja mich liebe" and "Sie mag so glauben ich sei gestorben!" in the Rückert songs. (In Um Mitternacht, the most exacting of the Rückert group, the singer's otherwise firm intonation falters a bit.)

The engineering captures Mahler's orchestral colors with a transparent glow, revealing also the fine orchestral playing. I find much of Andrew Davis' leadership unexceptionable, but he can be a trifle charmlers and unbending on occasion (Rheinlegendchen). His tempos are relatively brisk, and he paces the two most powerful Rückert songs (Um Mitternacht and Ich Bin der Welt Abhanden Gekommen) in a way that I find judicious yet less intensely emotional than the larger-scale and more deliberate approach of, say, Barbirolli or Mehta. G.J.

MARTINU: Symphony No. 2; Symphony No. 6 (see Best of the Month, page 83)

MENDELSSOHN: Symphony No. 1, in C Minor, Op. 11; Symphony No. 4, in A Major, Op. 90 ("Italian"). London Philharmonic Orchestra, Bernard Haitink cond. PHILIPS 9500 708 \$9.98, © 7300 803 \$9.98

Performance: Good Symphony No. 1 Recordina: Excellent

Bernard Haitink's reading of the First Symphony-a product of Mendelssohn's adolescent years that is rich with echoes of Schubert and Weber-is highly satisfying. Haitink brings more weight to the Weberish opening movement than Kurt Masur does in his estimable recording with the Leipzig Gewandhaus Orchestra on Vanguard and, in so doing, gives the movement an added element of dramatic impact. There is a nice flow in the slow movement, and in the min-





Oboist Heinz Holliger: flying colors

Zelenka: Virtuosic Trio Sonatas

JAN DISMAS ZELENKA, a J. S. Bach contemporary who worked in Dresden, is gradually emerging as a first-rate composer of tremendous interest. It is curious that his music was deliberately suppressed by the authorities, who allowed it neither to be published nor to be copied. Diligent scholars have, fortunately, rescued it from oblivion, enthusiastic performers have brought it to life in some superb performances, and Deutsche Grammophon has done the lion's share of recording it. Those of you who remember DG's thrilling album of Zelenka's orchestral music (see March 1979 "Best of the Month") will be equally delighted with a new two-disc set of his trio sonatas.

The sonatas are striking because of their dimensions and the musical technique displayed in them. Zelenka was a master at spinning out a motive with constant variation and countrapuntal play. Each movement is tightly wrought using one or two motives, and the composer's imagination in the handling of them seems inexhaustible. He also had his own characteristic vocabulary, best savored here in the Fifth Sonata with its curious modal unisons.

Although these pieces are labeled trio sonatas, they are in fact closer to being quartets. Zelenka calls for a continuo of double-bass and bassoon, but he more often than not gives the bassoon an independent obbligato line so that it joins the dialogue of the oboes, leaving the double-bass and harpsichord to fill the role of continuo. The result is a rich and complex texture.

Zelenka's writing is virtuosic in the extreme; it is hard to think of any other trio sonatas of such sustained difficulty and brilliance. The instrumentalists on this record are put through a technical and musical ordeal—which they survive with flying colors. Mastering one sonata alone is difficult, but to come up with breathtaking performances of all six of them is a miracle. So is this album. —Stoddard Lincoln

ZELENKA: Six Trio Sonatas. Heinz Hollinger, Maurice Bourgue (oboes); Sascha Gawriloff (violin); Klaus Thunemann (bassoon); Lucio Buccarella (double-bass); Christiane Jaccottet (harpsichord). DEUT-SCHE GRAMMOPHON ARCHIV 2708 027 two discs \$19.96.

uet Haitink raises the ghost of the corresponding movement of Mozart's G Minor Symphony (K. 550). The finale comes off brilliantly, especially the fugato episodes.

The Italian Symphony fares somewhat less well. Moderation and fastidious attention to line and detail characterize Haitink's reading of the opening movement, and he includes the exposition repeat with its fine transitional episode. The pilgrims evoked in the succeeding movement, though, shuffle along mighty briskly, and the third movement too is a bit rushed for my taste. I have no complaints, however, about the final Saltarello. The London Philharmonic players are in fine form throughout, and the Philips production team has come through with nicely detailed, full-bodied sonics. D.H.

RUGGLES: The Complete Music (see Best of the Month, page 80)

RECORDINGS OF SPECIAL MERIT

SARASATE: Spanish Dances No. 5 ("Playera"), Op. 23, No. 1, and No. 8, Op. 26, No. 2. SARASATE (arr. Francescatti): Spanish Dances No. 1 ("Malagueña") and No. 2 ("Habanera"), Op. 21, Nos. 1 and 2; Caprice Basque, Op. 24. FALLA (arr. Kochanski): Suite Populaire Espagnole. GRA-NADOS (arr. Kreisler): Spanish Dance No. 5 ("Andaluza"), Op. 37, No. 5. E. HALFF-TER (arr. Heifetz): Danza de la Gitana. Itzhak Perlman (violin); Samuel Sanders (piano). ANGEL SZ-37590 \$8.98, © 4ZS-37590 \$8.98.

Performance: **Delicious** Recording: **Fine**

SARASATE: Spanish Dances: No. 1 ("Malagueña") and No. 2 ("Habanera"), Op. 21; No. 3 ("Romanza Andaluza") and No. 4 ("Jota Navarra"), Op. 22; No. 5 ("Playera") and No. 6 ("Zapateado"), Op. 23; No. 7 and No. 8, Op. 26. Introduction and Tarantella, Op. 43; Caprice Basque, Op. 24; Serenade Andalouse, Op. 28. Ruggiero Ricci (violin); Brooks Smith (piano). MCA/WESTMIN-STER MCA-1410 \$4.98.

Performance: To the manner born Recording: Fine

Itzhak Perlman is one of the most satisfying violinists before the public today. Whether

in the Berg concerto or Fritz Kreisler miniatures, his combination of flair, skill, enthusiasm, and taste carries the listener beyond the realm of enjoyment and admiration into that of affection. And so it is yet again in his delicious "Spanish Album," with the superb partnership of Samuel Sanders and fine sound from Angel. In the case of Sarasate's Spanish Dances, however, Ruggiero Ricci is even more dazzling and endearing in his reissued Sarasate program. This material suits Ricci down to the ground, and his special identification with it has been documented twice on records. He first recorded all eight of the Spanish Dances for London in the early days of microgroove, and later he made this generously filled disc, which was originally issued by American Decca about twenty years ago. His hand has never been surer, his tone never more beautiful than in these enchanting performances, which are aglow with spontaneity, wit, and sheer delight in realizing to the full the specific character of every one of these intriguing pieces. Far more than a convenient way to collect all the Spanish Dances together, this is a classic matching of interpreter and material. Brooks Smith is, as always, the violinist's noblest companion, the remastered sound could pass for new, and George Jellinek's exceptionally informative notes are reprinted from the original issue. Lovers of fine fiddling will want both of these records, but Ricci's is the one no one should let himself miss. R.F.

RECORDING OF SPECIAL MERIT

SCHOENBERG (arr. Webern): Chamber Symphony in E Major, Op. 9. BERG: Chamber Concerto: Adagio. DEBUSSY (arr. Eisler?): Prélude à l'Après-midi d'un Faune. Boston Symphony Chamber Players. DEUTSCHE GRAMMOPHON 2531 213 \$9.98, © 3301 213 \$9.98.

Performance: Superb Recording: Excellent

The Schoenberg Chamber Symphony is one of the landmark pieces of twentieth-century musical history. Schoenberg virtually invented the form and make-up of the chamber orchestra for this work. Yet the piece tends to strain at the bonds of the chamber orchestra, and I have never heard a completely satisfactory performance of the original version-which may be one reason it has never made its way into anybody's repertoire. The orchestral transcription that Schoenberg made many years later doesn't quite seem to work either; it is completely logical only on paper. In view of all this, the notion of the Chamber Symphony as a quintet for piano, violin, flute, clarinet, and cello seems almost ludicrous. Whatever possessed Webern to do this arrangement or Schoenberg to approve it-to try to contain these immense energies and innovations in such a tiny space?

Well, surprise! It works perfectly. In fact, as played here it is far and away the most satisfactory version of this troubled work that I have ever heard. The chamber-music form completely clarifies the music while eliminating the sense of strain, of agonized striving, that inevitably ruins the original. These chamber musicians—playing without a conductor—do not intend or expect to produce a sound like a modernized, expressionist Mahler, and they don't try. The epic lines of the music emerge without tears, without strain.

The Debussy piece here is really just an oddity; we have heard L'Après-midi d'un Faune too many times in its full orchestral dress, and this chamber version adds little to our understanding or enjoyment of it. The adagio from Berg's Chamber Concerto for Piano, Violin, and Thirteen Winds is a very introspective, rather long, and beautiful movement, and it is quite comprehensible in Berg's own trio arrangement for violin, clarinet, and piano. But the real prize on this record is the Schoenberg. E.S.

SCHUBERT: Sonata in A Major, Op. 120; Impromptu in A-flat Major, Op. 90, No. 4 (see SCHUMANN)

RECORDING OF SPECIAL MERIT

SCHUMANN: Carnaval, Op. 9; Humoreske, Op. 20. Bella Davidovich (piano). PHILIPS 9500 667 \$9.98, © 7300 765 \$9.98.

Performance: Great Recording: Superb

SCHUMANN: Carnaval, Op. 9. SCHU-BERT: Sonata in A Major, Op. 120; Impromptu in A-flat Major, Op. 90, No. 4. Alicia de Larrocha (piano). LONDON CS 7134 \$8.98, © CS5 7134 \$8.98.

Performance: Schubert good Recording: Dull

Bella Davidovich came out of the Soviet Union in 1978 with a reputation as one of those Russian piano superstars. It's well deserved. Hers is a superb Carnaval, full of fantasy and poetry, as witty and personal and brilliantly played as, well, Rachmaninoff's-still the benchmark in Carnaval playing after all these years. All the same remarks apply to the less familiar but very beautiful Humoreske-not at all what you might think, but a large-scale, quietly lyric/ pastoral work of great charm. Davidovich is one helluva strong player, but she is no showoff; everything is personal, phrased, articulated, sung out, intense, highly poetic. Great playing, and very well recorded too.

Alas, *Carnaval* is not Alicia de Larrocha's cup of tea; her performance is limp. The Schubert on the other side is something else. This is beautiful, singing, lyrical playing of a very special quality. I thought the piano sound was a bit dull, though. *E.S.*

STRAVINSKY: Petrouchka, Three Movements; Piano Rag Music; Tango; Serenade in A Major; Piano Sonata. Dezsö Ránki (piano). TELEFUNKEN 6.42358 AW \$9.98, © 4.42358 CX \$9.98.

Performance: *Petrouchka* excellent Recording: Very nice

This is a major portion of Stravinsky's solopiano output. Most of it was written in the early 1920s (*Tango* was written in 1940, and, of course, the *Petrouchka* music was originally written before World War I). The *Petrouchka* pieces are just right for the gifted young Hungarian pianist Dezsö Ránki; he is at home with the exoticism, the flair, the technical brilliance, the picturesque expression. And he is quite jaunty in



If you're a friend of Jack Daniel's, drop us a line. We'd like to get to know you

WE NEVER DREAMED we'd be adding on to the main office in Jack Daniel's Hollow.

Reagor Motlow built the front three rooms in 1952 and everyone wondered what he'd do with the space. Since then, we've added a little to the left of it and some to the

right. And recently we've put several newer rooms out back. Occasionally, good friends inquire as to how we've grown to such size. After a sip of Jack Daniel's, we believe, they have their answer.



Tennessee Whiskey • 90 Proof • Distilled and Bottled by Jack Daniel Distillery, Lem Motlow, Prop. Inc., Route 1, Lynchburg (Pop. 361), Tennessee 37352 Placed in the National Register of Historic Places by the United States Government.

For lovers only ~

Soft-music and sof lighting of together. Preserve the romantic mood Robins ROBOLITE snaps on turntable dustrovers and illuminates the record. Lets you place the tone arm but a groove you want without turning on room lights or turnting in the dark. Turns off automatically when the dustrover is lowered. Ask for a demonstration at your hill dealer.



It whistles while it works Listen to the Robins WhistleStop electronic

Lister to the Robins whistlestop electronic head demagnetizer whistle as it eliminates performance-robbing residual magnetic build up from your tape head. Hear the difference in sound quality and reduced distortion Simply insert like any cassette. Complete with batteries At your hi-fi dealer.



CIRCLE NO. 72 ON READER SERVICE CARD

the amusing *Piano Rag Music* and the rather creepy *Tango*. But those two neo-Classical masterpieces, the Piano Sonata and, especially, the Serenade in A Major, seem to have him a bit baffled. He gives them cool, reticent performances that suggest he is never really quite sure what it was he intended to say with and about this music.

RECORDING OF SPECIAL MERIT

TALLIS: Missa Puer Natus Est; Suscipe Quaeso Domine; Salvator Mundi. The Clerkes of Oxenford, David Wulstan cond. NONESUCH H-71378 \$5.98.

Performance: Lucid Recording: Sonorous

The full triadic sound the English have always favored in their music is splendidly displayed in this collection of choral music by Thomas Tallis, the teacher of William Byrd. Writing for seven parts, Tallis devised an incredibly lush sonority that flows without break as each voice traces its individual melody. One of the most striking effects is achieved by dwelling on one triad and moving the voices around in the manner of bell peals. This is really grandiose music whose sound was intended to fill cavernous cathedrals.

The Clerkes of Oxenford produce a unique tonal quality. Although women sopranos are used instead of boys, they sing purely and without vibrato. The weight of the sonority is carried by the tenors and countertenors, with a slightly softer bass part. The effect is radiant; one listens from the middle out, as it were, and is aware of all the inner movement. Conductor David Wulstan keeps the flow constant but with a sense of dignity that lends just the right flavor to the music. It is thrilling to hear Tallis done this way and to realize the achievement of the English music of this period, which is so often considered insular. The sound is not Continental, but the artistry is as great. S.L.

TCHAIKOVSKY: Piano Concerto No. 1, in B-flat Minor, Op. 23. Andrei Gavrilov (piano); Philharmonia Orchestra, Riccardo Muti cond. ANGEL SZ-37679 \$8.98.

Performance: Freewheeling Recording: Brilliant, full-bodied

TCHAIKOVSKY: Piano Concerto No. 1, in B-flat Minor, Op. 23. Claudio Arrau (piano); Boston Symphony Orchestra, Colin Davis cond. PHILIPS 9500 695 \$9.98, © 7300 783 \$9.98.

Performance: Elegant, poised Recording: A mite congested

RECORDING OF SPECIAL MERIT

TCHAIKOVSKY: Piano Concerto No. 1, in B-flat Minor, Op. 23. Martha Argerich (piano); Royal Philharmonic Orchestra, Charles Dutoit cond. PRIVILEGE 2535 295 \$6.98, © 3335 295 \$6.98.

Performance: Has flash and style Recording: Absolutely first-rate

There are some thirty-one recordings of the Tchaikovsky First Piano Concerto currently available. Certainly there is a reading for (Continued on page 124)



This latest version contains everything you need to get the fullest, most realistic reproduction from your stereo equipment. Whether you've spent thousands on your stereo system or have a more modest setup, the SRT14-A is an indispensable tool for helping you realize the full potential of your equipment. Best of all, you don't have to be an electronics engineer to use it. You can actually perform a complete stereo system checkup by ear alone.

A test lab in a record jacket Employing the most advanced recording, mastering, and pressing techniques, the Stereo Review SRT14-A is produced to strict laboratory standards. Engraved in its grooves are a series of precisely recorded test tones, frequency sweeps, and pink noise signals that enable you to accurately analyze and check your stereo system for:

Frequency response.

翻

麗語

- Wow and flutter.
- Channel balance.
- Cartridge tracking ability. Anti-skating
- 翻 Hum and noise, including Musical Instrument Tuning. turntable rumble.

Standards, and more ... much more. And you can do it all without any instruments...by ear alone.

Step-by-step instructions 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 abberations 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 twotone 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 lowfrequency 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 countera

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 verv high precision for tuning instruments and for checking turntable sneed

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

GUITAR TUNING TONES. The six notes of standard guitar tuning are recorded with accuracy better than 0.1 per cent.

The final step

Start getting the most out of your stereo system. Make the SRT14-A your next record purchase. Just complete the coupon and mail it along with your remittance today!

	ur convenience PHONE 24 HRS. YORK STATE ONLY 800-942-1940.
Test Record, Dept. 30013, P.O. Box 278, F	Pratt Station, Brooklyn, NY 11205
Please send SRT14-A (\$10.95 outside U.S.A.).	Stereo Test Records @ \$8.95 each
Enclosed is \$	*
CHARGE: VISA DAster Charg	
Account #	Exp. Date
Signature	
Print Name	
Adøress	the second s
City / State / Zip	
Residents of CA, CO, DC, FL, IL, MA, applicable sales tax	

SERVICE & RELIABILITY"

MONTH'S

SUP	EX	SPECIALS!
		TEDEO
	SSETTE	
N-DASHW/RADIO		PIONEER-continued GM-12 (6 waitsrch) 28 90
P 1500 P-2500	89.90	GM-12 (6 watisich) 28 90 GM-40 (20 watisich) 49 90 GM-120(60 watisich) 109 90
	104 90 119 90 127 90	CD-5 (7-17 cand equalizer) 89 90 CD-7 (7-17 band equalizer) 124 90
P-5500 P 8500 E-2100	142.90	JENSEN CAR SPEAKERS
1-2100 1: 3000 1: 5000 1: 5000 1: 3500 1: 4502 1: 4500 1: 4: 4: 4: 4: 4: 4: 4: 4: 4: 4: 4: 4: 4:	174.90 209.90 244.90	J1001(6x9 separates) 94 50/pr J1065 (6x9 max 50 watts) 62 50/pr J1033(6x9 max 8 100w) 79 50/pr
P-3500 (foreign cars)	129 90	J1033(6x9 trax II 100w) 79 50/pr J1101(4x10 triax 45(wetts) 62.50/pr
P 8000 (foreign cars)	129 90 144 90 154 90	1113O(4)10 (max 50 w) 79 50/or
E-2002 (foreign cars) PX-9000(requires amp)	209.90 154.90 179.90	
PX-9500 (requires amp)	179.90	J1124 (5%,traxii / 2%,alls) /9 50/pr J1069 (6,9 coax 45 walts) 40 50/pr J1037 (629 coax 45 walts) 40 50/pr J1037 (5% coax 45 walts), 41.50/pr J1041 (5% coaxii 75 walts) 49 50/pr
P-272	60.00	J1077 (5% coax 45 watts). 41,50/pr J1041 (5% coax 8 75 watts) 49 50/pr
P-272 P-373 P-575 P-250 P-500 P-500	84 90 94 90	
P-250 P-500	104 90 129 90 79 90 104 90	IN-DASHW/RADIO
P-66G (requires amp) P-77G (requires amp)	79 90	FT-1498 259 9O
P-88G frequires ampl	99 90	FT-149O-2 164.90
PX 600 (requires amp) P-707G (requires amp)	144 90	FT-1495 169 90 FTC-2 54 90 FTC-4 64.90
S-M2	28.9O/pr	FTC-A 7190
S-M2 S-T3 S-121	28 90/pr 34 90/pr 34.90/pr	FTC-8 09 90 CASSETTE UNDERDASH FT-606 74 90
5-107	37 90/pr 49 90/pr 84.90/pr	FT-606 7490
5-168	84.90/pr	FT-1400 95 90 BLAUPUNKT
5-411	47 90/pr 89 90/pr	CR2000D 229 95 CR2001 269 95 CR3001 469 95
5-X6 5-X9	89 90/pr 69.90/pr 129 90/pr	CR2000D 229 95 CR2001 269 95 CR3001 469 95 CR4000 259 95
OWER AMPS/EQU P-32O (20 watts/ch)	ALIZERS	WE ALSO CADDY THE CULL LWE OF
D. 36O(70 watte/ch.)	54.9O	CAR STERED BY GRUNDIG, MITSU- RISHI CONCORD, PANASONIC MA.
D-3O(30 watts/ch equalizer D-5O(50 watts/ch equalizer	89.90	CAR STEREO BY: GRUNDIG, MITSU- BISH, CONCORD, PANASONIC, MA- RANTZ, CLARION, BLAUPUNKT, FOS- GATE, AUDIOVOX, CRAIG AND SONY-
		SEND FOR CATALOG
		(1) 1 (3)
	CASSE	TTETAPES
MPEX Grand Master or C 90.		TDK 40.0 50 1.68
ASEProl 11 or III C 90 JJIFX1 or III C 90	2.99 2.99 2.99	TDK A0 C 90 2.45 TDK SA C 60 2.15 TDK SA C 90 2.99
COTCH Low Noise C 90 3/pack IEMOREX High Bias C 90	5.99 3.79	TDK SA C 90 2 99 TDK MA C 60 (metal) 6.29 TDK MA C 90 (metal) 7.99
DNY FeCr C 90	3 25	TDK MA C 90 (metal) 7.99 MAXELL UD, UDXL 1& II C 90
DNYLNXC90 DKDC60 DKDC90	1.64	too low to advertise
EEL-TO-REEL TAPE	1.68 S	coll or write for prices
COTCH Master (18001:) COTCH 207 (18001:)	5.99 5.19	VIDEO TAPES
IAXELL UD 35-90 (18001)	5.49	ALL BETA L-500 12.95 ALL BETA L-750 15.95 ALL VHST-120 (except HG) 14.95
DKL-1800(1800/t)	5.22	ALL VHST-12O (except HG) 1495
	DER 12 TA	VC. MAXELL PANASONIC, MEMOREX. H. SONY, RCA NODERS AND HOME VIDEO MOVIES APES
audio-technica.		SHURE
-20 \$\$ -15 \$\$	134 9O 89.95 49 95	
1-14 SA T-12 SA	49 95	V15 type III 69 95 M97 HF 51 95
1-10	12.95	M95HE 3490 M91ED 20.50 M44E 14.90
LINIOD 815	70.06	M91ED 20.50 M44E 14.90 M70EJ 11.90
81 FFF-S	79.95 59.95 49.95	
81 EEE 80 EE	27.95	PICKERING
00E	14.95	XSII 5000 109.90
<u>M</u> PIÆ		XSV/4000 68 50 XSV/3000 45.90
200Z	49.95	X\$V/3000 45.90 XV15/750 34.90 XV15/625 26.90
DOO E/iii DR 9	18.50 114.50	XV15/400
	Prose a	CADIEC
		INVALED
ISCWASHER	10.11	HEADPHONES
OMPLETE SYSTEM	10.95	KOSS pro 4/AAA 46 50 KOSS HV1/LC 34 50
SCORGANIZER	9.95	KOSSHVX/LC 48.50
ROSTAT ANTI-STATIC GUN	34.95 9.95 10.95 14.95 4.95	SENNHEISER HD-420 52.50 SENNHEISER HD-430 72.50
ISCFOOT	15 95	AUDIO TECHNICA ATH-7 94 95
ZZBUSTER II radar detecto ZZBUSTER ELITE detector	82.90	CASIO C 80 Cal/Watei: 45,00 CODE A-PHONE 1 400 (remote) 164.95
AMBOX FM-8 antenna	39.95	TEXAS INSTRUMENTS 1157 48.50
AMBOX FM-10 ontenna	. 64.95	ATARICX 200 (game) 139 95
		ORDS ZZ&CLASSICAL S4.99
All 8.98 List. All 9.98 List		\$5.49 \$5.99
	CK ALL	sortapes MAJOR LABELS
certified check, Tw \$3.50 per order for U.S.) N.Y.S. reside guaranteed, brand n	ro weeks de r shipping & nts add tax new & factor	vithin 48 hours, send money order or lay on personal checks. Please add handling (\$5.50 for orders outside No C.O.D.'s. All merchandise 100% y fresh. EE (800) 221-8180

23 PARK ROW, DEPT. R.T. NEW YORK, N.Y. 10038

CALL OR WRITE FOR FREE 160 PAGE CATALOG CIRCLE NO. 28 ON READER SERVICE CARD every taste, and the three under review here are as different from one another as anyone could possibly imagine.

Andrei Gavrilov, a Tchaikovsky Competition laureate (1974), is a real firebrand in the first movement, and he is abetted in full measure by Riccardo Muti and the Philharmonia Orchestra. This is an all-out whizkid treatment: fiercely blaring horns summon the soloist to the fray, whereupon Gavrilov-with Horowitzian élan and comparably brilliant and unerring dexterity-lunges into the music with freewheeling ritards and returns to tempo that are far beyond anything I have encountered before. The free approach actually works better in the slow movement, and the finale is done brilliantly with a more than usually broad treatment of the coda.

Claudio Arrau, in complete contrast to Gavrilov, adopts a stately and aristocratic approach to the music. There is no attempt to wow the listener, and Arrau and conductor Colin Davis stress the lyrical substance. If Arrau at seventy-seven cannot match Gavrilov's dexterity in the central section of the slow movement, he shows himself a true master of rubato in the lyrical episodes of the finale. The Philips Boston recording seems to have been rather closely miked, and the sound is somewhat congested as a result. Despite some over-reverberance in it, I find Arrau's 1961 recording on Seraphim (S-60020) more agreeable, and it is, moreover, coupled with a wonderful performance of the Weber Konzertstück--music I suspect is more congenial to Arrau than Tchaikovsky's is.

The real prize among these three discs is the Deutsche Grammophon Privilege reissue of the 1971 recording by Martha Argerich with her husband, Charles Dutoit, conducting. Here's a performance with ebullience, great style, and, on the part of Miss Argerich, sovereign command of keyboard coloration, notably in the slow movement. Dutoit and the Royal Philharmonic come through with a stunning orchestral collaboration, and the sound is tops in every way. Don't pass this one up. D.H.

TCHAIKOVSKY: Symphony No. 2, in C Minor, Op. 17 ("Little Russian"). Philadelphia Orchestra, Eugene Ormandy cond. RCA ARL1-3552 \$8.98, © ARK1-3552 \$8.98.

Performance: High-gloss Recording: Handsome

Eugene Ormandy's way with the sparkling Little Russian is heavy-handed for my taste in the main body of the opening movement, but the Andantino Marziale and scherzo movements are turned out with the greatest elegance and spirit, respectively. The basic tempo of the kamarinskaya-like finale again is a mite slow for me, but the coda really does wind things up in a blaze of Philadelphian fireworks. A major virtue of this disc is the gorgeous sound-wide-range in every respect and wonderfully transparent in texture, betokening, perhaps, a more simplified microphone setup than RCA has usually used in Philadelphia. D.H.

RECORDING OF SPECIAL MERIT

VIVALDI: Dixit Dominus. Marilyn Hill Smith, Anna Bernardin (sopranos); Helen Watts (contralto); Ian Partridge (tenor); Ian Caddy (bass); John Tall (organ); English Bach Festival Choir and Orchestra, Jean-Claude Malgoire cond. **Stabat Mater.** Helen Watts (contralto); John Tall (organ); English Bach Festival Orchestra, Jean-Claude Malgoire cond. CBS M 35847 \$8.98, © MT 35847 \$8.98.

Performance: Wonderful Recording: Wonderful

If no other record has convinced you that Vivaldi's vocal music is as fine as his instrumental music, if not better, this one surely will. The Dixit Dominus, among his finest creations, achieves a remarkable range and intensity of emotions with economical means. The splendor of the work is immediately apparent in the militant first movement with its trumpets, strings, and chorus. There is lavish use of Baroque word painting: rushing strings suggest torrents, and a single distant trumpet awesomely announces the final judgment. A duet for two sopranos is carefully balanced by one for tenor and bass. Each soloist has his chance: there are no weak arias, and the chorus interjects powerful statements at appropriate moments. For the tragic Stabat Mater, Vivaldi cast the text into three vocal concertos for contralto and strings. The second is particularly effective with its austere accompaniment for violins and violas alone.

The English Bach Orchestra uses early instruments (though the jacket notes fail to mention this) and produces ravishing sounds of utmost transparency. Baroque articulation and swells for each of the string tones bring clarity to Vivaldi's mosaic-like textures, and the delicate aria accompaniments and the well-balanced organ continuo are superb. Nothing is forced or pushed; brilliance comes as the natural result of Vivaldi's orchestration.

The singers too are excellent, and they manage the difficult vocal lines easily. Like the orchestra, they have a consistently light touch; passion is expressed by intensity rather than volume. The double roulades in the two duets, especially those of Ian Partridge and Ian Caddy, are a joy to hear. Helen Watts' performance in the difficult *Stabat Mater* is simple but wonderful.

This is certainly one of conductor Jean-Claude Malgoire's finest discs. It breaks new ground in the exploration of Vivaldi's orchestral sound and sheds light on another facet of his genius. S.L.

WOLF: Italienisches Liederbuch. Christa Ludwig (mezzo-soprano); Dietrich Fischer-Dieskau (baritone); Daniel Barenboim (piano). DEUTSCHE GRAMMOPHON 2707 114 two discs \$19.96.

Performance: Good, with reservations Recording: Very good

I must begin by praising what first meets the eye: I don't remember another album as tastefully and elegantly packaged as this one. As for its contents, they include not only informative notes and texts in three languages but also the original Italian poems that Wolf's poet, Paul Heyse, translated for this collection. Aside from the pleasure of reading these rarely seen love songs and folk ballads in the original, all properly annotated, I came away with enhanced esteem for Heyse's achievement, for

124

his German versions are both fluent and admirably faithful. Deutsche Grammophon's recorded sound—rich, natural, and well balanced--rounds out a fine presentation.

My dulled critical senses, however, awoke as I began listening to the singing. This is Dietrich Fischer-Dieskau's third go at the Italian Songbook. His first, with Irmgard Seefried (DG 138 035/36, long deleted), back in the early 1960s, captured him in his vocal prime; the second (Angel S-3703), in which Elisabeth Schwarzkopf was his partner, came about ten years later and remains a very strong contender in the active catalog. Fischer-Dieskau's consummate artistry is too well known to require new testimonials, but equally known are the vocal limitations and mannerisms that characterize his current singing. He can still convey tenderness and devotion with a mesmerizing rapture (Sterb'ich, So Hüllt in Blumen on side three is a good example). The outer sections of Benedeit die Sel'ge Mutter attain a similar quality of spirituality, but the contrasting middle section now goes beyond controlled passion to become violent. In general, I find his singing overdrawn and given to dynamic stress at the expense of lyric flow.

There is no such overinterpretation, however, in Christa Ludwig's contribution, which is warmly colored, appealingly feminine, and, when called for, convincingly passionate. At times her vibrato obscures the pitch of some of Wolf's trickily chromatic writing, and some of the songs could do with a little more humor, but I found much pleasure in her singing. Daniel Barenboim's contribution is also very significant: technically imposing, richly resonant, and sensitive to nuances. *G.J.*

COLLECTIONS

ARTHUR FIEDLER: Forever Fiedler---Highlights of a Unique Recording Career. Gade: Jalousie. Moszkowski: Spanish Dance in G Minor, Op. 12, No. 2. Wolf-Ferrari: The Secret of Suzanne: Overture. The Jewels of the Madonna: Dance of the Camorristi. Schönherr: Die Sieben Sprünge. Khatchaturian: Masquerade: Mazurka; Galop. Offenbach: La Belle Hélène: Overture. Geneviève de Brabant: Galop. Sousa: High School Cadets March; The Stars and Stripes Forever. Bosc: Rose Mousse: Entr'acte. Rodgers: South Pacific: Medley. Ivanovici: Danube Waves. Johann

Lincoln Perry's PHANTASMAGORIA MUSICA The Studio of Forgotten Instruments



Crown makes American hightechnology audio components, whose innovative designs and remarkable specifications established new performance standards for an entire industry. Crown amps, pre-amps, crossovers, equalizers and tuners are highly respected by audio enthusiasts. Performers, recording engineers and sound contractors choose Crown for their personal, and professional systems.

The Crown Information Package tells all about Crown and its products, possibly the finest collection of audio information easily available to you. Over 50 pages, including Crown technical papers on audio concepts, discussions

Buy Crown. Three dollars.

of product design and operation, specifications, prices, dealer locations – and much more. Many illustrations in full color.

Send three dollars with the coupon. If it's not worth it, send it right back. We'll refund your money.

If all you need is the name of a nearby Crown dealer (he has this information for free), use our reader service card number.

Here's my \$3. Send the package.

Name
\ddress
Dity

State _____Zip____



1718 W. Mishawaka Rd, Elkhart, IN 46514 Innovation. High technology. American. That's Crown.

CIRCLE NO. 14 ON READER SERVICE CARD

SABA The Sound of Music

Our HiFt philosophy is quite simple. Listen Listen Listen Listen Listening satisfaction is what hi-fidelity is all about. The entire SABA line of speakers, amplifiers, tuners, cassette decks and receivers gives you top value for your dollar. Whether you choose an economical 3-way combination or an exclusive HiFi component system, you're assured of total quality and superb value.



ULTRA HI-FIDELITY DIST.

1001 E. Touhy Ave., Suite 112, Des Plaines, IL 60018 312/827-9818.

	CIRCLE NO. 64 ON F	READER SERVICE CARD	a a a a a a a a a a a a a a a a a a a
CALL TOLL FREE (800) 223-2706	special of the m	ontr	
FIONCER CAR STEREO IND ASH CASSETTE UNITS KE X 20. KE X 20. 214 99 KPX 9500 156.99 KE X 200. 249.99 KE 2002 210.99 KE 2000 177.99 KP 8500 142.99 KE 2002 210.99 KE 2000 142.99	SANYO 1490 A In-dash AUDIO SPEC stereo AMIFM cassette with * Dolby and up to 12 Watts per channel \$129.99 ower. \$149.99 MATARI ATARI VIDEO GAME CX 2600		BLANK TAPES MAXELL CASSETTES C90 UDXL-11 (Cr) 3.39 C60 UDXL-11 (Cr) 3.39 C60 UDXL-1 3.39 C60 UDXL-1 2.49 C90 UDXL-1 2.79 C60 UDX 2.79 C60 UD 2.79 C60 UD 2.79 MAXELL REEL-TO-REEL UD35 908
KP 8000 155.99 KP 7500 189.99 KP 6500 159.99 KP 5500 129.99 UNDERDASH CASSETTES KP 88C 99.99 KP 66G 78.99 KP 500 132.99 PDWER AMPLIFIERS 6M 40. GM 40. 49.99	JENSEN CAR STEREO INDASK CASSETTE UNITS 329.99 R 430 329.99 R 420 269.99 R 410 229.99 R 405 199.99 R 402 172.99 R 400 5PEAKERS Triax II JUG33 (683") .79.99/pr	RECORDS ENTIRE SCHWANN CATALOG ROCK, AAZZ, RAS Ministein Order & Resards All 7,98 List. Only 4,85 All 9,98 List. Only 6,35 All 9,98 List. Only 5,85 Tapes Concertion or 3-Treek /0 addl Record Graies by Maid Only!!! No telephone Orders accepted	UD35-90549 UD35-18015.29 TDK CASSETTES SAC-60 (Cr)299 SAC-60 (Cr)219 ADC-90249 ADC-60169 DC-90169 DC-90119 TDK REEL-T0-REEL L81800539
GM 120. 107.99 AD 30 Equalizer 92.99 AD 50 Equalizer 142.99 CD 5 Component Eq 91.99 CD 7 Component Eq 125.99 SPEAKERS TS 695 84.99/pr TS 638 99.99/pr TS X66 72.29/pr	Cosx II J1037 (6x8") 59.99/pr Triax J1004 (5%") 49.99/pr Triax J1065 (6x8") 62.99/pr Triax J1016 (4x10") 62.99/pr Triax J1101 (4x10") 62.99/pr Triax J1105 (6x9") 62.99/pr Cosx J1056 (6x9") 40.99/pr Cosx J1056 (4x10") 40.99/pr Cosx J1056 (4x10") 40.99/pr	PHONO CARTRIDGES Shure V15 Type IV 102.99 Shure V15 Type II HE 83.99 Shure M97 HE 53.99 Shure M95 HE 34.99 Audio Technica AT15-SS 99.99 Audio Technica AT14-SA 56.99 Audio Technica AT14-SA 56.99 Audio Technica AT14-SA 77.99	L1800. 5.29 L3600. 14.89 SDNY FeCr. SPECIAL 2.99 (Minimum order 10 Tapes) ORDE FING INSTRUCTIONS All merchandise is Factory Fresh and complete with Manufacturer's War- renty. For immediate shipment, send Certified Check, Money Order, Cash-
13 x0 12 39/µ 13 x9 13 98/µ SANYO CAR STEREO INDASH CASSETTES FTC.8 FTC.8 102.99 FTC.10 109.99 FT.1490.2 166.99 FT.1495 166.99	Clarifori CAR STERED PE958A 316.99 PE751C 243.99 PE662C 167.99 300E0B Equalizer 141.99 100E0B Equalizer 81.99 HEADPHONES Koss Pro 4AAA SPECIAL 45.99 Koss Pro 4AAA SPECIAL 45.99	Stanton 681EEES. 56.99 Stanton 681EEE. 47.39 Empire 20002. 54.99 Empire 200053. 18.99 Pickering XSV4000. 68.99 Pickering XSV3000. 49.99 BLANK VIDEO CASSETTES	ier's Check, or Master Charge or Visa (Send Card Number and Expiration Date). Call us toil free Mon-Fri 9AM 7PM, Sat 10AM-7PM (Eastern Time) for Credit Card orders. Personal Checks are subject to hold for bank clearance. Shipping & handling charge \$350 (Canada, Puerto Fino, Hawaii, & Alaska \$7.00) Allow 5-12 days for U.P.S. delivery. For all matter other
F1.1438 229.99 F1.2400 229.99 F1.646 144.99 ● BLAUPUNKT CAR STEREO CR3001 Indash Cassetta. 239.99 CR20010 Indash Cassetta. 239.99	Nos HVXLL 48.89 Kess HVX 43.99 Sennheiser HD 420 75.99 Sennheiser HD 424 64.99 Sennheiser HD 420 52.99 Sennheiser HD 424 47.99 Audio Technica ATH-1 20.99 Audio Technica ATH-6 69.99	Sony L-500 (Beta) SPECIAL 15.99 Sony L-500 (Beta)	than to pleas orders, please call 2124866500. No C.O.D. orders accepted. N.Y. Residents must include Proper Sales Tax. We carry a full line of PIDNEER, TECHNICS, AKAI, B.I.C. & TEAC home stereo Epuipment, as well as PIDNEER, JENSEN, SANYO PANASDNIC, MITSUBISHI & CLARIDN car stereos.
Audioma 1263 Broadway New Y		CA	LL TOLL FREE 300) 223-2706 da call (212) 686-5500

Strauss Jr.: Ritter Pasman: Polka. Artists' Life (Patrice Munsel, soprano). Cailliet: Variations on "Pop Goes the Weasel." Borodin: In the Steppes of Central Asia. Rossini/Respighi: La Boutique Fantasque: Tarantelle. Berlioz: Rakóczy March. Gershwin: Rhapsody in Blue (abridged; Jesús María Sanromá, piano); Variations on "I Got Rhythm" (Earl Wild, piano). Anderson: Fiddle-Faddle, The Syncopated Clock. Schuman: New England Triptych: Chester. Mancini: Moon River. Ellington: Solitude (Duke Ellington, piano). Lennon/ McCartney: And I Love Her; I Want to Hold Your Hand. Josef Strauss: Fireproof Polka. Gould: Latin-American Symphonette: Conga. Danoff/Nivert/Denver: Take Me Home, Country Roads. Kingsley: Popcorn. Leoncavallo: I Pagliacci: Prologue (Robert Merrill, baritone). Fauré: Après un Rêve (Nathan Milstein, violin). Verdi: La Forza del Destino: Pace, pace (Helen Traubel, soprano). Friday/Toussaint/Tyler: Java (Al Hirt, trumpet). Litolff: Scherzo. Reminiscences by Arthur Fiedler. Boston Pops Orchestra and RCA Victor Orchestra. Arthur Fiedler cond. RCA CRL3-3599 three discs \$17.98, © CRK2-3600 \$17.98.

Performance: Generally excellent Recording: Poor to good

Since Arthur Fiedler's death in July 1979, the shelves of record stores have been bulging with rereleases of the records that helped make the white-maned conductor of the Boston Pops Orchestra so famous during his half-century career. RCA has obviously gone to a great deal of trouble to make this three-record package a distinguished historical documentation of that career, yet from a listener's point of view the experience as a whole is less than satisfactory. The company for which Fiedler made hundreds of recordings has some fascinating stuff in its vaults, and some real jewels are on display here: the witty Cailliet Variations on Pop Goes the Weasel, long missing from the catalog and especially welcome back; Earl Wild in his complete 1961 recording with the Pops of Gershwin's I Got Rhythm variations and Jésus María Sanromá in the final pages of what is probably the best Rhapsody in Blue ever released; Nathan Milstein in Fauré's Après un Rêve; and other treasures.

Fiedler brought vitality and a strong sense of style to everything he conducted except perhaps for those oversize arrangements of show tunes that his audiences relished—and it is good to have so much of it together in this handsome set. The first side, however, is made up of poorly remastered material, mainly from the Thirties, that is far too squawky for comfortable listening today, and on the last side Fiedler's reminiscences may make passable listening once or twice, but how many times would you want to hear them? *P.K.*

KATHERINE HOOVER: For the Flute. Farrenc: Trio in E Minor, Op. 45. Ulehla: Elegy for a Whale. Katherine Hoover (flute); Carter Brey (cello); Barbara Weintraub (piano). Boulanger: Nocturne; D'un Matin de Printemps. Hoover: On the Betrothal of Princess Isabelle of France, Aged Six. Tailleferre: Pastorale. Katherine Hoover (flute); Virginia Eskin (piano). LEONARDA LPI 104 \$7.98 (plus \$1 postage and handling charge from Leonarda Productions, Inc., P.O. Box 124, Radio City Station, New York, N.Y. 10019).

Performance: Handsome Recording: Well balanced

RECORDING OF SPECIAL MERIT

CAROL WINCENC. Flute Recital. Enesco: Cantabile et Presto. Honegger: Danse de la Chèvre. Gaubert: Sonata. Debussy: Syrinx. Fauré: Fantaisie, Op. 79; Morceau de Concours. Poulenc: Sonata for Flute and Piano. Carol Wincenc (flute); András Schiff (piano). MUSICAL HERITAGE SOCIETY MHS 4180 \$6.95, © MHS 6180 \$6.95 (plus \$1.25 postage and handling charge from the Musical Heritage Society, Inc., 14 Park Road, Tinton Falls, N.J. 07724).

Performance: **Distinguished** Recording: **Luscious**

Leonarda Productions, which published the Katherine Hoover composition as well as producing her disc, is identified as "a nonprofit tax-exempt corporation formed to promote contemporary music and music by historical women composers." This disc, we are further advised, was "made possible in part by Festivals I and II of Women's Music, presented by the Women's Interart Center, New York City." The major offering here is the trio by Louise Farrenc (1804-1875), which occupies an entire side. Though it does not seem to go any place in particular, its four movements are very well crafted (in a Mendelsschumannesque mold), with some especially attractive material for the cello as well as the flute. Ludmilla Ulehla's Elegy for a Whale, commissioned for a National Whale Symposium in 1975, the one piece on the disc taken from a live performance (May 8, 1978), incorporates the taped sounds of real whales; it is not the first composition to do so but is no less effective for all that-a pleasantly provocative ten minutes' worth. Lili Boulanger (1893-1918), sister of the late Nadia Boulanger, is known for some large-scale choral works. Her broadly expressive little nocturne and somewhat more expanded, piquant evocation of a spring morning, the two of which frame the sequence of shorter pieces, are models of Gallic taste, while the Pastorale of Germaine Tailleferre, the only female member of "Les Six," is an enchanting quasi-sicilienne. Hoover's own piece, part of a cycle based on figures in Barbara Tuchman's historical study A Distant Mirror, is delicately evocative in a time-standsstill frame. The performances are uniformly handsome, and the sound is quite good.

Carol Wincenc's MHS disc represents, I understand, the inauguration of a series of showcases of Naumburg Competition winners to be presented on this label. Her program is almost entirely French, a phenomenon no more surprising in relation to the flute than an all-Spanish program for the guitar. In the two famous unaccompanied pieces by Debussy and Honegger, and in Poulenc's similarly familiar sonata, Wincenc discloses a superb feeling for mood (wit, in particular) as well as a steady and gorgeous tone that makes one ready to listen to anything she might have to offer. And what she offers in addition to these well-known items is a clutch of really lovely discoveries. I had not known, till I read





The New 1980 Basic Repertoire

STEREO REVIEW again presents the annual revision of the Basic Repertoire. In pamphlet form, the 1980 updating includes disc and tape recommendations for over 180 standard musical works. For your copy, send \$1.00 in cash, plus a stamped (20ϕ) , self-addressed No. 10 envelope $(9\frac{1}{2} \times 4\frac{1}{8} \text{ in.})$, to Esther Maldonado, STEREO REVIEW, 1 Park Avenue, New York, N.Y. 10016.



MIKLÓS AND JUDIT SZENTHELYI

Skill, Elegance, and Charm for Kreisler

MIKLÓS SZENTHELYI is a twenty-nine-year-old Hungarian violinist who studied with Dénes Kovács, has concertized fairly extensively in Europe, and was the soloist with the Budapest Symphony Orchestra on its North American tour in 1979. To say that his name is not a household word here is only to belabor the obvious. But maybe it should be a household word. Szenthelyi plays Kreisler with great skill, great elegance, and great charm. His tone is sweet, his intonation superb, and his oldstyle musicianship just about all-encompassing. His sister Judit Szenthelyi is no mean pianist either, and how wonderful (and how rare!) to hear ensemble playing in this repertoire on the level of a well-rehearsed Mozart sonata. A lovely and lovable record. -James Goodfriend

KREISLER: Praeludium and Allegro (Pugnani); Canzonetta; Romanze; Liebesfreud; Liebesleid; Schön' Rosmarin; Madrigal; Allegretto (Boccherini); Caprice Viennois; Toy Soldiers' March; Chanson Louis XIII and Pavane (L. Couperin); La Gitana; Rondino on a Theme of Beethoven; Cavatina; Polichinelle, Serenade; Recitative and Scherzo Caprice, Op. 6. Miklós Szenthelyi (violin); Judit Szenthelyi (piano). HUN-GAROTON SLPX 12141 \$8.98 (from Qualiton Records, Ltd., 39-28 Crescent Street, Long Island City, N.Y. 11101). Harris Goldsmith's excellent annotation, that Philippe Gaubert, better remembered as a conductor than as a composer, was also a flutist. His sonata, in any event, is eminently worthy of the attention it receives here, as is the slight but delectable Enesco item. Wincenc, by no means incidentally, has no mere accompanist but a superb partner in the person of András Schiff. All in all, a distinguished production, with suitably luscious, natural sound. *R.F.*

RECORDING OF SPECIAL MERIT

LONDON PRO MUSICA: Renaissance Chamber Music. Arcadelt: Ancidetimi Pur; Donna Quando Pietosa; Da Si Felice Sorte. Francesco da Milano: Ricercar; Fantasia. Da Rore: Ancor Che Col Partire. Dalla Casa: Ancor Che Col Partire. Fontana: Madonna Mia Pietà. Da Nola: Chi la Gagliarda. Lassus: Bonjour Mon Coeur; La Nuit Froide et Sombre. Créquillon: Toutes les Nuictz. Roquelay: Ta Bonne Grace. At taignant: Five Branles. Sermisy: A Douce Amour. London Pro Musica. DESTO DC 7194 \$7.98.

Performance: Aristocratic Recording: Good

Bernard Thomas, a member of the London Pro Musica, has chosen for this record a group of sixteenth-century pieces that demonstrate the flexibility of instrumentation in Renaissance chamber music. Most of the works here are madrigals or chansons originally published in arrangements for



STEREO REVIEW

solo voice and various combinations of lute, organ, viol, etc., and they are fascinating music. There are also some fine lute solos and a wonderful viol fantasia.

The album is dominated by the beautiful singing of countertenor Kevin Smith, who possesses an exceptionally rich voice that is perfect for the music. The rest of the performers (Bernard Thomas, flute and recorder; Christopher Wilson, lute; Trevor Jones, viol and rebec) are also excellent; they play with elegance and great restraint, giving us the true flavor of Renaissance aristocracy. But I wonder who plays the organ so well. Whoever it is is not credited on the album. S.L.

RECORDINGS OF SPECIAL MERIT

CARLOS MONTOYA: Flamenco Direct, Volume I. Tango Antiguo; Levante; Caribe Aflamencao; Fandango; Taranto; Variaciones; Aires de Genil; Málaga. Carlos Montoya (guitar). CRYSTAL CLEAR \square CCS-6004 \$19.98.

CARLOS MONTOYA: Flamenco Direct, Volume II. Jerez; Macarena en Tango; Saeta; Solea-Caña; Zambra; Zapateao. Carlos Montoya (guitar). CRYSTAL CLEAR \square CCS-6005 \$19.98.

Performances: Glorious Recordings: Stunning

Carlos Montoya is one of the great Flamenco guitarists of this century. He has been recording for many decades, but, according to the lively liner notes by his wife Sally, he regards these two discs as "the closest to hearing him and his guitar in person." He is right. His playing is remarkable, but even more remarkable is the sound captured on these direct-to-disc recordings. Since no editing is possible in this process, what he gave in two three-hour sessions is precisely what you get, and that is pretty wonderful even at the high list price.

Among the selections, played with that peculiar combination of fire and ice that makes for first-rate Flamenco, are a Moorish-flavored Zambra from the gypsy caves in the hills of Granada, an improvised Bulerías from the town of Jerez, a Zapateao during which you can all but see the toe and heel movements of a Flamenco dancer, a Tango Antiguo from Seville, a Fandango from Huelva, a Malagueña from Málaga, and a Guajira from Cuba that exemplifies Latin American influence on the music of Spain. Everything is filtered through the inventive musical mind of Montoya himself, who has really developed a new music out of the old sources. A resounding Olé! for both P.K.albums.

MUSIC OF ANCIENT GREECE. Stasimon from "Orestes"; First Delphic Hymn to Apollo; Techessa's Lament; Hymn to the Sun; Hymn to the Muse; Hymn to Nemesis; Epitaph of Seikilos; First Pythian Ode; Fragments of Contrapolionopolis; and thirteen others. Atrium Musicae of Madrid, Gregorio Paniagua cond. HARMONIA MUN-D1 HM 1015 \$8.98 (from Brilly Imports, 155 North San Vincente, Beverly Hills, Calif. 90211).

Performance: Effective Recording: Good

Although music played an integral part in the daily life of classical Greece and many theses on the subject have come down to us, mostly theoretical, we know very little about the actual *sound* of ancient Greek music. Extant visual representations of musicians playing and scattered bits and pieces of an enigmatic musical notation present more puzzles than solutions. Nonetheless, Gregorio Paniagua has bravely tackled the problem, devising a method of reading the notation, reconstructing many of the ancient instruments, and training a body of musicians to perform the music.

The musical results of this enterprise are curious. Oddly enough, my first reaction to the exotic modes, the breathy flute, the snarling aulos, the gutty plucked sounds, and the delicate percussion was to compare it all to the kabuki music of Japan. At other times I was reminded of Gregorian chant. At all times, however, the sound is unique and intriguing. To question its authenticity is pointless; one must accept Paniagua's vision of classical Greek music for what it is-an educated and imaginative guessand enjoy it as something fresh and exotic. The proceeds of this UNESCO-sponsored record, incidentally, will go toward restoration of the Acropolis in Athens. S.L.

(Continued overleaf)

THE PHASE LINEAR 8000 IS AS CLOSE TO PERFECT AS YOU CAN GET.



SIGNAL/NOISE: -78dB. WOW & FLUTTER: 0.013%. TRACKING ERROR: 0. SKATING FORCE: 0.

No other turntable can match the Phase Linear 8000, because no other turntable has such advanced motors. You can't buy a quieter turntable. Or one with as low wow & flutter. Or one that tracks better.

The Phase Linear 8000's tangential tracking tone arm keeps the stylus in perfect 90° tangent with the grooves. It's the same way the master disc was cut, so the motion of your stylus is identical to the cutterhead stylus. There's absolutely no tracking distortion. No crosstalk. No skating force that can actually re-cut your grooves.

NEW LINEAR MOTOR ELIMINATES MECHANICAL LINKAGE

Other manufacturers have tried to move tangential tone arms with worm gears. Belts. Rollers. All with the same sad result: Mechanical connections pass on the noise and vibration of the motor.

The Phase Linear 8000 solves this problem with an ingenious Linear Motor. The tone arm base is a permanently magnetized armature that glides along guide bars above electro-magnetic coils. The arm moves by direct induction — not mechanical connection. So there's virtually no noise. Inside the tone arm, an opto-electronic detector cell senses the slightest tracking error, and instantly sends correcting signals to keep the arm on track.

NEW QUARTZ-PLL DIRECT DRIVE

Our new slotless, coreless Stable Hanging Rotor DC motor virtually eliminates "platter wobble." Quick start/stop. Speed deviation is lower than 0.002%. If you want to hear all these technical advantages translated into musical improvements, contact your Phase Linear audio dealer.

CIRCLE NO. 40 ON READER SERVICE CARD



ORIGINAL SOUNDS OF THE 1890s. Commodore Polka. Thomas Clark (cornet). Admiral Dewey March. U.S. Marine Band, William H. Santelmann cond. Rubber Neck Jim; The Thunderer; Dixie; A Hot Time in the Old Town. Sousa's Band, various conds. Clarionet Spaghetti Polka. F. Giardella (clarinet). Love Thoughts Waltz. Arthur Pryor (trombone). Carnival of Venice. Jean Moeremans (saxophone). And thirteen others. WESTWOOD @ LP 501 \$7.98 (from Westwood Records, 2131 Greenfield Avenue, Los Angeles, Calif. 90025).

Performance: Fun Recording: Skillfully restored

You can learn all about Emile Berliner, inventor of the phonograph disc, from the back cover of this album, and on the record. from original Berliner discs made between 1894 and 1899, are some of the darndest things you ever heard. There's a monologue on drinking by George Graham, surprisingly distinct considering its age, which ought to have a sobering effect on the most unregenerate listener. There are cornet and trombone and saxophone solos, wobbly sopranos, Italian tenors, and barbershop quartets. There are stints on the banjo, spirituals, yodeling songs, the Carnival of Venice (they're still making records of that), and enough Sousa-like marches to start a small military school. Some of the selections are too long, but most are fun, and the sound, cleaned up by some valiant anonymous engineer, is better than you might expect. PK

MISHA RAITZIN: Sings Songs of His People. Jerusalem; Der Becher; Sim Shalom; A Din-Toire mit Gott; Ura Dor; Yehi Ratzon; Lo Teyda Milhama; V'Liyerushalayim Ir'cha; Zol Shoin Kumen Di Geula. Misha Raitzin (tenor); orchestra, Bob Reisenman arr. and cond. Moss MUSIC GROUP MMG 1114 \$7.98.

Performance: Soulful Recording: Very good

When tenor Misha Raitzin lived in his native Russia, he sang with the Leningrad and Moscow opera companies and appeared with the Moscow Philharmonic as a soloist, but he was never allowed to sing a Jewish song. Once his exit visa to leave for Israel with his family was honored, Raitzin started making up for lost time. He was a principal soloist with the Israel Philharmonic and toured Europe, Africa, and North America in programs combining classical repertoire with Jewish music. Since then, he has sung the leading tenor role in Boris Godounov at the Met and made other major appearances as the Met's only Israeli tenor; now he offers a record of Jewish liturgical music, Yiddish folk songs, Israeli patriotic songs, and so on. A Din-Toire mit Gott, a tour de force of a musical monologue in which a rabbi harangues God for afflicting His people but ends up by praising Him, has been hair-raisingly recorded by Jan Peerce, but Raitzin's version, though more restrained, is moving enough. Some of the liturgical pieces, which Raitzin says he learned from his father in private worship in their home in the Ukraine, make for greyer going, but all are beautifully P.K. sung.

Stereo Review's **1981 TAPE RECORDING & BUYING GUIDE** Don't shop for tape equipment before you know how it measures up.

TAPE MEASURE

A HIM AN

in the se

10 M 1

114101.44

12 00 00

unit

A Construction of the Association of the Associatio

If you're thinking of new tape equipment, from buying a first cassette deck to adding state-of-the-art metal-tape capability, you owe it to yourself to look through the 1981 Tape Recording & Buying Guide first.

Here are all the facts you need.

Think of it as a 134-page "tape measure" to judge the basics of equipment before you shop. Instead of leafing through a whole shopping bag of brochures, just get this one-volume reference, which not only has all the facts (including prices), but is easy to use for comparisons.

Includes a complete directory of audio and video tape machines, accessories, and tapes.

A special 84-page section gives you facts specs, and prices on cassette, openreel, and 8-track tape machines...video cassette recorders... car stereo equipment, including boosters and equalizers... headphones and microphones...mixers and signal processors ... even blank tape and accessories.

PLUS:

- A buyer's guide to cassette decks showing you how to get the best for your money and system step-by-step.
- Test reports on 8 new decks, both cassette and open-reel.
 Videc cassette recorders: facts, formats, and the
- future
- 6 feature articles and directories, to bring you up to date on tape recording today

Use this coupon to get your copy.

_____ Tape Recording & Buying Guide, Dept (1450 P.O. Box 278, Pratt Station Brooklyn, NY 11205 Please send the 1981 Tape Recording & Buying Guide. Enclosed is \$3.50° (\$2.95 plus 55¢ postage and handling). Outside USA \$5.00. Print Name ____ Address . City

State/Zip _

*Residents of CA, CO, DC, FL, IL, MA, MI, MO, NY STATE, UT, and VT add

applicable sales tax

STEREO REVIEW MARKET PLACE

CLASSIFIED RATES: Per Word, 15 Word Minimum COMMERCIAL: \$3.20. EXPAND-AD*: \$4.80. DISPLAY: 1" x 2¼", \$390.00. 2" x 2¼", \$780.00. 3" x 2¼", \$1,170.00. GENERAL INFORMATION: Frequency rates and prepayment discounts available. Payment must accompany order except credit card — Am. Ex., Diners, MC. VISA (include exp date) — or accredited ad agency insertions. Copy subject to publisher's approval; must be typewritten or printed. First word set in caps. Advertisers using P.O. Boxes **MUST** supply permanent address and telephone number. Orders not acknowledged. They will appear in next available issue after receipt. Closing date: 5th of the 2nd month preceding cover date (e.g., Mar. issue closes Jan. 5th) Send order & remittance to: Classified Advertising, **STEREO REVIEW** Magazine, 1 Park Avenue, New York, NY 10016. Direct inquiries to Linda Lemberg, (212) 725-7686.

A SINGER'S DREAM!

EQUIPMENT



DIAMOND NEEDLES and STEREO CARTRIDGES at DIS-COUNT PRICES for SHURE, PICKERING, STANTON, EM-PIRE, GRADO, AUDIO TECHNICA, OSAWA, SATIN and ADC, Send for free catalog, LYLE CARTRIDGES, Dept. S., Box 69, Kensington Station, Brooklyn, NY 11218. Toll Free 800-221-0906 9AM - 8PM except Sunday.



WHOLESALE PRICES on stereo/esoteric components, cartridges, tonearms, tapes. Free Catalog. Audio Unlimited, 1798 Technology Drive, San Jose, CA 95110. (408) 279-0122 1-6 M-Th.



SAVE 50%. Build your own speaker system. Write[•] McGee Radio Electronics, 1901 McGee Street, Kansas City, Missouri 64108.

ELECTRO-VOICE raw loudspeakers, Audio Control equalizers, Tapco amps, etc. Discount prices with quick response. Sonix Company, Dept. SR, Box 58, Indian Head, MD 20640. (301) 753-6432.



TOP-RATED CARTRIDGES UP TO 70% OFF!! We offer Acutex. ADC, Dynavector, Grado. Nagatron, Ortofon Shure, Sonus, and many more at the lowest possible prices. Just Call 212-254-3125 for more information, or write to DIRECT DIS-COUNTS LTD., P.O. Box 841, New York, NY 10276

JAMERA+HII=FI+VIIDEO

ATTENTION SOUTHERN AUDIOPHILES: Yamaha. Nakamichi, Carver, Dahiquist, Polk, Audio, Bang & Olufser, Advent Aiwa, Great American Sound, Ortofon, Denon, Technics, Vi sonik, Alpine and Jensen car stereo. Mail order inquiries welcome. We pay all shipping charges. Available at Sound Acvice of Ruston, Village Plaza, Ruston, LA 71270. (318) 255-8000.

BUY DIRECT and save British and European Hi-Fi. Attractive prices. Send Reply Coupon for Quote, \$3 bills for brochures. Goodwins, 7 The Broadway, Wood Green, London N22 Phone 888-0077. VISA Mastercharge Visitors welcome.

PHILIPS AND AUDAX LOUDSPEAKERS in stock at gcod proces with competent service. Madisound Speaker Components. 537 Holly Avenue, Madison, Wisconsin 53711. (608) 256-7337.

HORNS-WOOFERS-MIDS-TWEETERS at tremendous CEM savings. Altec, Electro-Voice Philips, Peerless, Polydax and many others. Dozens of hard to find items used in major manufacturers most expensive systems. Huge selection of crossover network components, automobile systems, and musical instrument loudspeakers. Send \$2.00 for catalog refundable with purchase. SRC Audio, Dept. SR10, 3238 Towerwood Dr., Dallas, TX 75234.

TOP QUALITY SPEAKERS AND KITS. Send \$1,00. Speaker Warehouse, 809 North Route 441, Hollywood FL 33021. WISCONSIN HAS: Audionics, Denon, Hafler, Audio Control, NAD, Polk, Grafyx, Adcom, Connoisseurs, STAX, Oncyo, Grado, Revox, Luxman and Aiwa. We invite specific inquiries. The Sound Seller, 1706 Main Street, Marinette, WI 54143. (715) 735-9002.

LOWEST PRICES. BOSE, SAE, NAKAMICHI, and MORE. Dynamic Sound, Box 168(A), Starkville, MS 39759. (601) 323-0750 1 P.M. - 9 P.M.

ACCURATE, QUALITY AUDIO: Reasonable Prices. Carhome. Send stamp: Denco, P.O. Box 6104-R, El Monte, CA 91734. (213) 444-9978 Evenings, Weekends.

CARTRIDGES AT WHOLESALE — Other stereo bargains. Free price list Audio Component Systems. 1329 Union Mill Road, Olympia, WA 98503.

USED HI FI. Buy, Sell, Trade: Broker. Bob Heenan, Box 782, Broekline Village. MA 02147. (617) 969-2727. Wanted McIntosh, Marantz: Western Electric Tube Equipment.

TOP-NAME AUDIO AT LOW LOW PRICES!! Advent, Aiwa, AR Bose, dbx, Denon, Dual, ESS, Haffer, Harman Kardon, Infmity, JBL, Mitsubishi, NAD, Nikko, Onkyo, Phase Linear, SAE, Soundcraftsmen, Tandberg, Thorens and many many more we can't even mention by name — all at the lowest possible prices. All, of course, are factory fresh and include the fuil manufacturer's warranty. Compare prices, selection and service and were the best in the business. Our representatives are available for phone quotes and additional information Monday thru Saturday from 10AM to 7PM (EST) at 212 254-3125 Or send \$2.00 for our informative brochure to DI-FECT DISCOUNTS LTD., P.O. Box 841. Cooper Station, NY 10276. For your convenience we accept M/C and VISA over the phone and DON'T charge sales tax to out-of-state customers



ATTENTION. "FOREIGN" AUDIOPHILES AND DEALERS! Western World Audio Exporters can supply virtually ALL brands of hi-fi components. speakers, cartridges, etc (including esoteric lines) at very attractive prices. Quotes, terms and availabuilty furnished on request. Write to WESTERN WORLD. 373 Fifth Avenue, Suite 1556, New York, NY 10016. TELEX: 230176 SAKI UR.

AUDIO, VIDEO, ELECTRONIC PRODUCTS: Best pricing, prompt delivery! Sony, DBX, Teac, Tascam, Onkyo, Sound Workshop, Maxell, Mobile Fidelity Records, others. SOUND IDEAS. Dept. SR, P.O. Box 340, Cary, NC 27511. 1-800-334-2483. (NC-(919) 467-8462).

ARE GOLD CONNECTORS NECESSARY? Send SASE for free Gallimaufry. DB Systems, 347R, Jaffrey, NH 03452.

RETAIL PRICING SLIGHTLY ABOVE WHOLESALE! Audio/ Video components & tapes. MC/VISA. B&J, Box 248-S, Howard Beach, NY 11414. (212) 845-2861. New Hours: M-F, 4–8 EST.



QUALITY WOOD CABINETS built to your specifications. Free information Custom Electronics Display Cabinetry, 1547 Birchwood, St. Germain, WI 54558.

HEAR DOLBY FM CORRECTLY. Assembled Decoder \$99.50. Also encode decode kit for recordists. OSR INTE-GREX, Box 747. Havertown, PA 19083

TV SOUNDS through your Stereo System, Play-Record TV programs 24 feet or more away from TV. Sale, isolated adaptor delivers brilliant simulated stereo sounds. Universal: OK tube, Solid State TV's. Simple to install. Instructions included. \$19.95 PP. Check or PMO. Les Gaskell Enterprises, 11852 S. Hawthorne Blvd., Hawthorne, CA 90250 TEL (213) 675-2335.

SPEAKER PLANS — Build ANY SIZE speakers without special tools, experience. FOOLPROOF, illustrated instructions. parts sources. 80% SAVINGS! Rush \$4. SPEAKERPLANS, 334 Pursel, Phillipsburg, NJ 08865.

STEREO: Great Prices on a Tremendous Selection! Knowledgeable Service! AudioWorld, Box 7518, Grand Rapids, MI 49510. (616) 243-6314 M-F 1-7 pm.



CABLE TV DESCRAMBLERS AND CONVERTERS. Build or buy. Plans and parts. For information send \$2.00. C&D Company, P.O. Box 26, Hudsonville, MI 49426.



OMNISONIX 3 dimensional imager—greatly improves any stereo system. In stock for immediate delivery anywhere in the continental U.S. for only \$179.95. Call Sound Shed Hi Fi (914) 258-4077. 9AM-9PM Monday–Saturday. MC/VISA accepted.

HIGH RESOLUTION SPEAKERS, bextrenes, ribbons, Audiophile Grade parts and kits, catalog \$1.00. Transcendental Audio, Dept. 6, 6796 Arbutus Street, Arvada, CO 80004. (303) 420-7356.

REVOLVING PHONOGRAPH ALBUM CABINETS. Displays albums and with touch revolves from view. Send stamped envelope for info. WOOD DESIGNS, 9873 Sunset, Liv., MI 48150.



GOLD PLATED phono plugs 90¢ ea., jacks \$1.20, \$1.00 handling. Details SASE. Reference Audio, 368S, Rindge, NH 03461. SPEAKER STANDS. The Original GoldStands improve any speaker, custom models, so good they're imitated but never duplicated. Send for catalog Dealers welcome. GoldStands, 229 Nassau Rd., Huntington, NY 11743 (516) 427-4813.

BEST IN THE WEST^I Haffler, Nakamichi, Dahiguist, DCM, Magneplanar, Beveridge, APT, Threshold, Polk, Audionics, Harmon Kardon, B&W, Adcom, Rocky Mountain HI-FI, 812 Central, Great Fall, MT 59401 (406) 761-8683



THE SPEAKER WORKS Box 303 Caraan NH 03741 1605 559 7369

MAIL ORDER SAVINGS! Maxell UDXII C-90 \$3.29, Ampex Grandmaster II C-90 \$2.89, TDKSA C-90 \$2.99, Discwasher D-4 System \$9.50, Sherwood ST801 super-belt drive/low mass arm \$98.95, TDK HD-01 demagnetizer \$17.50, Roadstar RS 3800 AM/FM cassette w/RS57Q Power amp-30w \$149.95, Scott 671 DM metal-comp. \$159.00. EXTENSIVE STOCK! MANY LINES AVAILABLE! Check/MO to Belmont Trading Co., 12 Flanders Rd., Belmont, MA 02178. (617) 489-3731. Dealer Inquiries Welcome.

HEAR WHAT YOU'VE BEEN MISSING. Three dimensional imaging from your system' Omnisonic Imager \$179.95 postpaid, Seven day trial. AudioWorld, Box 7518SR, Grand Rapids, MI 49510. (616) 243-6314.

SAVE 70%. Build your own audio/video cabinet. For illustrated instructions send \$3.00 to MAK, 3207 Loyola, Dept. 101SR, Austin, TX 78723.

TAPES & RECORDERS

CASSETTES, Super Ferro Dynamic, Equal or better than Maxell UDXL, TDK-SA, etc. Eight cassettes with FREE Add m Stac storage module (\$1.95 value): C-45's \$16.00; C-60's \$18.00; C-90's \$22.00 including postage or send \$2.00 for a sample C-60. Save Money. Get Great Quality! Moneyback guarantee! Use VISA or Mastercharge call toll free 800-638-2000. Use check or money order to: ED HELVEY ASSOCI-ATES, Box 1507S, Annapolis, Maryland 21404.

1	Free \$5.0	00 T-Shirt		
TDK SA-C90 (New)	\$3.05	Ampex Grandma:		\$2.59
TDK: OD-C90 (New)	3 49		ster 11-90 .	2 89
TDK AD-C90 (New)	. 2 39			4 29
TDK D-C90 (New).	. 169	Soundguard Reci	ord Pres Kit	4 59
TDK SA-C60 (New)		TDK. L-1800		5 1 9
BASE PRO C-90	279	TDK. LB-1800.		. 6.49
BASE PRO II or IIIC-90	2 89	Ampex Grandma:	ster 1800 ft Reel	5 89
SCOTCH, Master II or IIIC-90	3 09	SCOTCH 207-7R-	-1800	5 09
SCOTCH. Master IC-90	. 2.69	BASE Ferro 7" 18	300' (New).	7 39
Free T-Shirt with every order over	er \$40.00 St	tate size. All tapes	can be assorted	No min
Add \$3.00 shipping, or write for	free catalog	of 250 items plus	lowest prices on a	II Maxell
products 100% guaranteed 41	2-283-862	M-Th 9-3.30 VIS	A & Mastercharg	e
Tane World	220 Sprin	g St., Butler, PA 1	6001	-

SCOTCH RECORDING TAPE, exclusively, all new, lowest prices. TAPE CENTER, Box 4305, Washington, D.C. 20012.

1930-1962 RADIO PROGRAMS. Beats Television!! Tapes, \$1.00 Hour! Established esteemed dealer. Informative 200 page catalog, \$1.25. AM Treasures. Box 192SR, Babylon, N.Y. 11702.

LIVE OPERA TAPES (REELS) — CASSETTES. Unbelievable treasure since 1926. Over 4,000 selections. Free DELUXE Catalog: Mr. Tape, Box 138, Murray Hill Station, N.Y. 10016.

YESTERDAY'S RADIO ON TAPE. Reels-Cassettes. Quality Sound. Reliable Service. Catalog \$1.00 refundable with first order. ADVENTURES, Box 4822-S, Inglewood, CA 90302.



VIENNESE LIGHT MUSIC SOCIETY — Strauss, Lanner, Etc. on Dolby Cassettes. KC Company, Box 793, Augusta, Maine 04330.

VINTAGE RADIO and T.V. — Lowest rates, Post Free, Trading, Video too; Signals, Box 5063, Station E, Edmonton, Alta., Canada T5P 4C1, U.S. Inquiries,

OPEN REEL TAPES from studio masters. Philips, Argo, Telefunken, Vanguard, Unicorn. Catalogue \$1.00. Barclay-Crocker, Room 1470-S, 11 Broadway, NYC 10004.

LIVE PERFORMANCE TAPES — opera, conductors, instrumentalists. Superior Sound. Open Reel Only. Catalogues. Good Sound Associates, POB 263, Planetarium Station, New York, NY 10024.

EXCITING OLD RADIO TAPES. Large selection available. Free catalog Radio Memories, Box 56-R, California, MD 20619.

CLD RADIO PROGRAMS, \$1.99 hour cassettes- open-reels. Big catalog \$1.50 refundable with order. Nostalgia, Box 254, Simi Vly, CA 93065.

OPEN REEL TAPES. Major labels - RCA, DG, London, others. Rock, classical, pop, soundtracks, quad. 100% guarantee. Bank cards welcome. Catalog/ordening information - \$1.00. REEL SOCIETY, P.O. Box 55099-R, Valencia, CA 91355.

GOLDEN AGE RADIO---Your best source for radio tapes. Free catalog. Box 25215-T, Portland, Oregon 97225.

NOSTALGIC VIDEO and radio tapes, books, magazines. Catalog \$2.00. Nostalgia Warehouse, Box 267, Yonkers, NY 10710.

TAPE SALE! TDK SAC 90 \$2.85, SAC 60 \$2.10, Metal-call, ADC 90 \$2.35, DC 90 \$1.45, L1800 \$5.10, LB1800 \$6.25. Fuji FXI or II C-90 \$2.59. Video prices call. MC/VISA. \$3.00 shipping (USA). NY orders taxable! B&J, Box 248-S, Howard Beach, NY 11414. (212) 845-2861. New Hours: M-F, 4-8 EST.

CASSETTE TECHNOLOGY BREAKTHROUGH!!! Computer sound waves creates natural high. Removes pain, stress and anxiety. Programmed by team of psychologists. Proven safe by Washington and U.S. Army. Free exciting report! ASTRAL SOUNDS, Box 6351-R, Rochester, MN 55901.

RECORDS

SHOW ALBUMS, Rare, Out-of-Print LP's. 64 pg. list. \$1.00. Bakers Wife or Nefertiti — original cast LP \$9.95. Broadway/ Hollywood Recordings, Georgetown, Conn. 06829.

PROTECT your LP's —Poly sleeves for jackets 10 cents; Round Bottom Inner Sleeves 9 cents; Square Bottom 6 cents; Poly lined paper 15 cents; white jackets 35 cents. Postage \$1.50. Record House, Hillburn, N.Y. 10931.

COLLECTORS' Soundtracks. Mint. List 50 cents (refundable). Jemm's, P.O. Box 157, Glenview, III. 60025.

OLDIES oldies, 45rpm. Also current hits. Free Catalog. Corny's Record Shop, Box 166J, Mason, Ohio 45040.

THOUSANDS of like new LPs and prerecorded tapes catalogue \$2.00. Records, Hillburn, New York 10931.

RECORD HOUND, Box 88, Eagleville, PA 19408. Fills "wantlists"? DOGGONE RIGHT!! 33-1/3 Specialist. Fast, Friendly Service.

NOTICE: Record Listeners Wanted

ĥ

(No experience required). You will receive nationally released albums to rate. There is no extra charge for the LP's you receive—all you pay is a small membership fee which covers all costs of the LP's including postage and handling. In return for your opinion you will build a substantial album collection — "first come basis". For application write

EARS SYSTEMS Box 10245 5521 Center St., Milwaukee, WI 53210. Dept SR

RARE ORIGINAL RECORDS, all kinds, mostly mint, 5000 list \$2.00, refundable, Carl, Box 828, Princeton, NC 27569.

CUTOUT OVERSTOCK RECORDS —UNBELIEVABLE SE-LECTION. \$2.99 Super Specials. \$1.00 for catalog (refundable). Cutouts, 742 Route 18, East Brunswick. NJ 08816

THE BEST RECORD STORE IN THE WORLD DELIVERED TO YOUR DOOR FREE! Rock, soul, jazz, new wave, space. easy listening, more. Rather Ripped Records Search Service. 1878 Euclid SR10, Berkeley, CA 94709.

PROTECT YOUR ALBUMS. White cardboard replacement jackets 35 cents. Plastic lined sleeves 15 cents. Postage \$1.25. Opera Boxes. 78 Sleeves Free Catalog. CABCO 400-1, Box 8212. Columbus, Ohio 43201,

ORION'S AVAILABLE by mail! \$6-record includes postage \$11/2, \$15/3 or more. Box 4087, Malibu, CA 90265.

ORIGINAL SHOWS & SOUNDTRACKS. "Once-In-A-Lifetime" Aucton Sale! Thousands of rare albums. Write for list. MUSICMAN MURRAY, 5516 Santa Monica Blvd., Hollywood, CA 90038.

BEETHOVEN/MOZART/PACHABEL. Samplers. 3 LP's, \$5.98. 3 cassettes, \$7.49. Free catalog: Musical Concepts, Box 53SR, Cedarhurst, NY 11516.

FREE RECORD CATALOG. New releases at discount prices and huge selection of classical, soundtrack, popular and jazz special values. Rose Records, 214 S. Wabash, Chicago, IL 60604.

RARE OUT-OF-PRINT ALBUMS. 25,000 in stock (FS). List \$2.00 refundable. Record Warehouse, Box 4617, Dept. SR, Rochester, NY 14613.

RARE, DISCONTINUED CLASSICAL LP's from private collection. Auction sale to serious collectors. Records fine scarce Minimum bids required each desired LP or set. List, details \$3.00. LWK, Rt. 2, Box 504 SMW, Homosassa, FL 32646.

AUDIOPHILE RECORDS' Save 20% to 40%. Free Catalog. Super Sound Record Service. P.O. Box 411237, Chicago, IL 60641.

ROCK, JAZZ, CLASSICAL, Big Band, LP's, Tapes, Imports. Cutouts, Oldie 45's. Catalogs \$2.00. Nert, Box 268-SR, Lawrence, MA 01842.

RARE CLASSICAL MUSIC on 100 + Imported labels. Many exclusives. Free catalog. RECORDS INTERNATIONAL, Box 1140, Dept. C, Goleta, CA 93017.

OUT-OF-PRINT LP's (no rock/classical) — Free list. Davidson, 6114 Gist, Baltimore. MD 21215

SAVE! Cut-outs by mail! Lowest prices on records thru mailorder. Catalog of hundreds of hard to find rock classics. Plus Buyer's Guide with artists background, type of music. Send 25e for catalog plus details on FREE BONUS RECORDS. Send name and address to: Now Or Never Records, 811 Rankin St., Ashdown, AK 71822.

AUCTION LISTS. Thousands of 78's, 45's, 33's. List \$3.00 refundable. 3292A Folsom St., San Francisco. CA 94110.

HYPNOTISM

FREE Hypnotism, Self-Hypnosis, Sleep Learning Catalogi Drawer H400, Ruidoso, New Mexico 88345.

RUBBER STAMPS

RUBBER ADDRESS STAMPS, BUSINESS CARDS. Free Catalog — Fast Service Jackson's, Brownsville Road-E-101, Mt. Vernon, III. 62864.

MUSICAL INSTRUMENTS

MUSICAL INSTRUMENTS HOT LINE¹ Incredible prices: Amps. PA Gear. ALI instruments, Huge selection. Sam Ash. established 1924. 800-645-3518. NYS: (212) 347-7757.

mandolin bros.	
C F MARTIN DEAN SIGMA GIBSON OVATION WEY PAY MODETTI LAB SERIE GUILD Discounts to 41% offfit WASHBUR FENDER YOUR NATIONAL KRAMER CONNECTION FOR FINE GUITARS - BANJOS - MANDOLINS BY MAIL	
MANDOLIN BROS. LTD. 629 Forest Ave, Staten Is, N.Y.10310 TOLL FREE 800 221-6928 Call or write for the LOWEST PRICES around MR. MS.	
(Number and Street)	
(City) (State) (Zip) Phone Order Hours: Mon-Sat 11-5 In New York State call: 212 981-3226	

INSTRUCTION

RADIO BROADCASTING. Become DJ. engineer. Start your own station — investment experience unnecessary! Receive free equipment, records. Free details. Broadcasting, Box 130-R10, Paradise, CA 95969.



WANTED

GOLD, silver, platinum, mercury, tantalum wanted Highest prices paid by refinery. Ores assayed Free circular. Mercury Terminał, Norwood, MA 02062.

CASH FOR YOUR Unwanted LP's and Prerecorded Reel to Reel Tapes. Reder, Box 323S, Hillburn, NY 10931 $\,$

BUSINESS OPPORTUNITIES

I MADE \$40,000.00 Year by Mailcrder¹ Helped others make money¹ Details 25c. Torrey, Box 313-NN. Ypsilanti, Michigan 48197.

STEREO REPRESENTATIVES NEEDED''! Lowest Possible Prices'! Over 100 Brands'!! Krasco-Rep SR, 998 Orange Ave , West Haven, Conn. 06516.

AUDIOPHILES WANTED¹¹ Put your knowledge to use, earn an excellent spare time income. We need campus Dealers to sell name brand stereo equipment at substantial discounts in your area. No investment necessary. For information and application please write: ABCOT SR. 1201 East Main Street, Menden, Conn 06450 Call (203) 238-7979

ERASE DEBTS with little-known law — CREATE wealth! Details FREE — Blueprints, No. DC10. Box 100, La Grangeville NY 12540

BORROW \$25.000 OVERNIGHT Any purpose Keep indefinitely! Free report! Success Research. Box 29263-RI, Indranapolis, IN 46229.

BECOME MONEYBROKER, place loan for yoursell and others. Earn large fee. Free information Stull Company, Box 5470-S, Cleveland, OH 44101.

COLLEGE DEALERS — WRITE for details on College Programs. Fast shipments, low prices, specify college Sound Reproduction, 7 Industrial Rd , Fairfield, NJ 07006

\$25,000.00 IN YOUR SPARE TIME. Home electroplating manufacturing business. Details FREE. Write, Peterson, Room MC-374-JL, 1512 Jarvis, Chicago, IL 60626.

FREE BOOK '2042 Unique. Proven Enterprises." Fabulous unknowns, ' second inflation income. Haylings-M, Carlsbad, CA 92008.

CAMPUS REPRESENTATIVES earn commissions, start a career selling Hi Frequipment on campus. Large national firm Call toll free 1-800-638-8806. 9AM to 9PM.

STEREO SALESMEN sell brands to friends and co-workers, good commissions, free training, Call toll free 1-800-638-8806 or 1-301-488-9600, Mr. Murray or Mr. Krizman

MAKE MONEY IN COLLEGE Sell brand name audio components. No investment. Unbelievable prices. Call Mr. Kay TOLL FREE at 800-241-6270.

ж.

GOVERNMENT SURPLUS

SURPLUS JEEPS \$19.30! ... CARS ... \$13.50! ... 650,000 ITEMS ... GOVERNMENT SURPLUS ... MOST COMPREHENSIVE DIRECTORY AVAILABLE Tells how, where to buy ... Your area ... \$2 ... MONE YBACK GUAR-ANTEE ... 'Government Information Services', Department EC-39, Box 99249, San Francisco, California 94109.

DO-IT-YOURSELF

BUILD CUSTOM STEREO SPEAKERS. For instructions send \$3.00 to: Constructa Speaker, Box 1124, Meirose Park, IL 60160.

ELECTRONICS

ELECTRONICS BARGAINS, Closeouts, Surplus! Parts, stereo, industrial, educational. Amazing values! Fascinating items unavailable in stores or catalogs anywhere. Unusual FREE catalog. ETCO-014, Box 762, Plattsburgh, NY 12901.

MOVIE FILMS/VIDEO TAPES

16mm SOUND Features, Shorts, New, Used for Sale, Free Catalog, National Cinema, 333 W. 57th St., N.Y., N.Y. 10019.

OPERA VIDEO - Magnificent performances from Europe on BETA, VHS Videocassettes Free listings H.R.E., Box 12, Kew Gardens, NY 11415.

BOOKS & MAGAZINES

WORLD'S LARGEST RECORD COLLECTOR'S PUBLICA-TION' 40,000 + records offered each monthly issue! Sample \$1.50. Subscription \$15.00. "Goldmine", Box 187Z, Fraser, MI 48026.

PUBLISHERS OVERSTOCKS, BARGAIN BOOKS. 2,000 tt:les, all subjects! Free catalog: Hamilton, 98-85 Clapboard, Danbury, CT 06810.

WHY DO STEREOPHILE READERS enjoy better sound than you do? To find out, write Why? P O. Box 1948, Santa Fe, NM 87501.

EVOLUTION — The Surround Sound Magazine. Quad and audiophile software plus hardware. For information: Evolution. 23757 Canzonet, Woodland Hills, CA 91367.

TOTAL MIND POWER (How to use the other 90% of your mind) FREE BOOKLET. Total Mind Power Institute #37, Larkspur, CA 94939.

SAVE MONEY ON HI FI! Previous Dealer reveals how in new booklet. Fifty places listed to buy from. Send only \$1.98 to: Audio-Info. P.O. Box 445R, Walnut Cove, NC 27052.

EDUCATIONAL OPPORTUNITIES

LEARN WHILE ASLEEP. Hypnotize¹ Astonishing details, strange catalog free! Autosuggestion, Box 24-ZD, Olympia, Washington, 98507.

EMPLOYMENT INFORMATION

ROCKY MOUNTAIN EMPLOYMENT NEWSLETTER!! Colorado, Idaho, Montana, Wyoming!! Current openings - all occupations!! Write today for FREE details to: Intermountain-W, 3506 Birch, Cheyenne, WY 82001.

TRAVEL/VACATIONS

SAVE ON LUXURY CRUISE! (passenger ship or freighter). How? Ask TravLtips. 163-09 Dept L409. Flushling. NY 11358

PERSONALS

MAKE FRIENDS WORLDWIDE through international correspondence. Illustrated brochure free. Hermes-Verlag, Box 10660/Z, D-1000 Beilin 11, W. Germany.

PENFRIENDS — ENGLAND — USA, Through correspondence, Send age, interests. Free reply, Harmony, Box ISR Brooklyn, New York 11223.

TUBES

1 14

TV and Radio Tubes 49 cents. Free 48 page color catalo Cornell, 4215-H University, San Diego, California 92105

MISCELLANEOUS

MAGIC tricks-You can do' Baffle, amaze friends. Cat \$2 00, Trick \$1 00, Abracadabra-RS2, Scotch Plains 07076

MICROFILM EDITIONS AVAILABLE. Copies of ST REVIEW Magazine are available on microfilm Xerox University Microfilms, Ann Arbor, Mic' Microfiche from Bell & Howell, Micro Photo Di Wooster, OH.

STEREO REVIEW

ADVERTISERS' INDEX

SERVIC	E NO ADVERTISER	PAGE NUMBEI
71	Accustic Deservation	
1	Acoustic Research ADC (Audio-Dynamics Corp.)	
2	ADC (Audio-Dynamics Corp.)	
~	Akai America, Ltd	
	Allison Acoustics	
4	Ampex Corp.	
5	Audio-Matic Electronics	
	Audio-Pro	
	Audio-Technica U.S., Inc.	
7	Bang & Olufsen of America	87
	Beyer Dynamics	
9 10	Bose Corporation	
11		
12	Carver Corporation	
3	Consumers Company	
4		
•	Crown International	
~		
5	dbx, Inc	
6	Delco Electronics Division	
	Denon America, Inc.	
7 9	Discount Music Club	
9	Discwasher	
5		
	Electro-Voice	
	Fisher Corp	
1	47th St. Photo	
2	Franklin Mint Corporation	42-45
	Gusdorf	
4	Hì-Fi Buys	
5	4 Ph 1	
6	Illinois Audio	
7		130
8	Jack Danieł's	
9		
3		
~	Kenwood Electronics	
0		59
	Koss Corporation	Cover 4
2	3M Company	
3	Maxell Corp of America	
14	McIntosh Laboratory, Inc	
-		110
5 6	Mitsubishi	
7	Mura Corp.	
8	Musical Heritage Society	
	MXR Innovations, Inc.	
9	Nikko Electric Corp. of America	61
	Onkyo	
	J C. Penney	75
0	Phase Linear	
1	Philips HI-Fidelity Lab., Ltd	
2	Philips Hi-Fidelity Lab., Ltd.	
3	Philips Hi-Fidelity Lab., Ltd	
4	Philips Hi-Fidelity Lab., Ltd.	
5	Pioneer Electronics of America	
6	Polk Audio	
	Radio Shack	
8,72	Robins Industries	
9	Sansui Electronics Corp	
່	Shure Brothers	
	Sony Corporation	
	Sony Corporation	
	Sony Corporation	
	Soundcraftsmen.	
	Sound Guard Corp	0110 100
	Sound Guard Corp	
	Sparkomatic	
	tereo Corp. of America	
	ereo Discounters	
	K Electronics.	
	Corporation of America	
	nics by Panasonic	
-	Life Records	
	scount Audio	
/	h Fidelity	
	\ Corp	
109.	эer	Cover 2,1
109.		
109.	er	
, NJ		
NJ) vrd Company	
NJ) vrd Company iscount Stereo M vational Corp	

)BER 1980

ision.

Simel/Live

By Steve Simels

The Powers That Be at the new Folk City: Robbie Woliver (left), Marilvn Lash, and Joe Hillesum.

NEW FOLKS AT HOME

A^T the risk of tooting my own horn, I am proud to say that although I grew up in the Sixties I was never a folkie. A lot of my friends were, of course, and they tolerated me because I went to the same "Ban the Bomb" rallies they did, but as far as I was concerned rock-&-roll was the only way to go. This probably had something to do with my then overactive hormones; somehow folkie girls (they were still called beatniks in those days) all seemed to have fat thighs. bad skin, and a tendency to wear black tights, none of which I was nuts about. Consequently, when I got old enough to haunt Greenwich Village, I managed to miss the shrine known as Folk City, which of course was the place where everybody who was anybody (Dylan, Baez, Collins, the whole crew) played at some point. Me, I was around the corner listening to the Byrds or the Blues Project.

This adolescent snobbery got tempered over the years; it became obvious to me that a lot of the artists I respected had roots in the folk tradition (the Lovin' Spoonful, for instance), and after Dylan went electric distinctions got thoroughly blurred (was an electric blues band like Paul Butterfield's rock or folk? Who knew?). But Folk City remained Folk City-no rockers needed apply. As a perhaps inevitable result, the crowds got smaller, the purists (on both sides of the stage) got crankier, and throughout the late Sixties and early Seventies both the club and the scene that nurtured it seemed ready to die a long-overdue death. It became, in fact, faintly embarrassing, even to some old-timers.

Then something changed. A lot of quirky, original, post-folkic folkies began to emerge there-Willie Nile, the Roches, Steve Forbert-and they seemed to flourish for the same reasons that, way downtown, the punks were flourishing: as a reaction against and comment on the utter vapidity of the commercial music scene run by the Don Kirshners of this world. Suddenly the folkies had a reason for being again. So, intrigued by the promise of some intelligent music, this year I finally, belatedly, made the pilgrimage to West Third Street, and, sure enough, there was a legitimate, thoroughly lively scene happening.

This was not an accident. The commercial success of Forbert and friends has been somewhat inspirational, and Robbie Woliver, who took over the management of the club this year, has made a determined effort to keep the place as unpredictable as possible; his only criterion for booking acts seems to be Are They Interesting? And so, along with acoustic types, he's also featured blues acts, jazz, New Wave, cabaret, and all sorts of unclassifiable weirdos. "I want this to be a place where people are discovered," he told me, and given the ears he's demonstrated lately I don't doubt for a moment that he'll succeed.

AND so, on an average night at Folk City you might see . . . Andy Breckman waxing surreal about what a good day he's had (after all, he didn't throw up and he wasn't hit by a bus); Erik Frandsen, a superb acoustic guitarist who may also be the only songwriter ever to pen a mordant tribute to TV's Superman (Nobody Grieves for George Reeves); Frank Maya and the Decals, a Talking Heads-ish bunch featuring a lead singer who suggests a cross between Frank Sinatra and a bag lady who sounds like Bobby Short on acid; June Dafgard and the Rhythm Dogs, who, while doubtless ready for a Broadway production of Janis Joplin Mania, still purvey impressive contemporary soul/blues; Horace Johnson and the Tractors, a gritty rock-and-raunch outfit who seem to pick up where John Fogerty and Creedence left off; the Bermuda Triangle, the first-ever folkies to cover Aerosmith songs on autoharp-they just may have invented punk-folk; Judy Castelli, a striking, intense singer-songwriter with a striking, rangey alto that sounds like nobody's you've ever heard; the Lili Anel Band, two sisters who do pop-jazz the way Phoebe Snow wishes she could; and Frank Christian, another guitar virtuoso (he's been known to back up many Folk City stalwarts), who has an utterly winning deadpan cool. And there seem to be more new folkies of this caliber showing up there all the time. Frankly, I'd put up with almost anything for music this good . . . even girls with fat thighs encased in black tights. Must be mellowing in my old age. \square

The Bose[®] 901[°]/550 Music System. Dollar for dollar, there is no better value.





It's a fact. More than any other component, the speakers you buy will determine the final quality of your music system. So it makes sense to get the best you can afford.

Bose 901 Direct/Reflecting[®] speakers are the state of the art. Unequivocally. No other loudspeaker can match the legendary spaciousness and clarity of the 901 speaker.

Bose has designed a low-cost receiver specifically for 901 speakers. The Bose 550 Receiver. It has a built-in 901 Active Equalizer that saves you more then \$100 when you buy a pair of 901 speakers. And 40-waft DC amplifiers that can drive the highly efficient 901 system to output levels equal to a 160-watt/receiver with conventional speakers.



The Bose 901/550 Direct/ Reflecting[®] music system. Now you can't afford not to own 901 loudspeakers.



Better sound through research

For more information, write Bose Corporation, Dept. SR, 100 The Mountain Rd. Framingham, MA 01701.

Covered by patent rights issued and/or pending © Copyright 1980 Bose Corport on. CIRCLE NO 9 ON READER SERVICE CARD

Introducing a totally new concept in stereophones.

The new Koss HV/X high velocity stereophone represents a remarkable breakthrough in hear-thru stereophone design and performance. For the first time, Koss engineers have been able to create a lightweight, hear-thru stereophone that combines the transparency of high velocity phones with the superior bass performance of closed-type phones. The result is a breathtaking musical experience.

CONTOURED VARIABLE-DENSITY EARCUSHIONS

While most lightweight, hear-thru stereophones have earcushions that fit against the ear, the new Koss HV/X features a unique, contoured, variable-density cushion that fits around the ear. Not only does this unique earcushion design create

a far more comfortable stereophone but it has also allowed Koss engineers to create a dramatically better element



design as well.

These new variabledensity earcushions are made up of a very porous material that is acoustically transparent at the perimeter of the earcushion vet compressed toward the center region. This varies the pattern of acoustic resistance over portions of the earcushions creating the proper seal for specific bass frequencies while alKoss HV/XLC

lowing the flow of middle and high frequenciesat the perimeter of the earcushions.

LIGHTWEIGHT ELEMENT

The uniqueness of the new variable-density earcushions made it possible for Koss engineers to design a lightweight element that reproduces a Sound of Koss you have to hear to believe. Incredibly. even though the overall weight of the element was reduced, Koss engineers were able to develop a magnet with enough magnetic density to drive an extra large diaphragm. With a response range of 15 to 35,000 Hz, the new Koss HV/X will drive you into ecstacy and our competitors nuts.

HEARING IS BELIEVING.

Slip into the new Koss HV/X or HV/XLC with volume/balance controls at your audio dealer soon. You'll like the best of both worlds: the open, airy, upfront sound of hear-thru stereophones and the deep. rich bass performance of closed-type stereophones.

And while you're with your audio dealer, listen to our full line of Koss stereophones and CM loudspeakers. There's no sound quite like the Sound of Koss.

For more information on the HV/X, our full line of stereophones and loudspeakers or our new Koss K/4DS digital delay system, write c/o Virginia Lamm.

© 1980 Kass Corp

MADSS stereophones/loudspeakers hearing is believing"