

McIntosh's New Receiver • Denon's \$500 Turntable February 1979 \$1.50

HIGH FIDELITY

ICD ® 08398

IS YOUR TAPE DECK BECOMING OBSOLETE?

Tape Tricks for Better Auto Sound



In Beat:

Light
97 CLINTON ST
ONEonta NY
12520

Be DJ

**AND IT'S WHAT GOES
INTO HPM SPEAKERS THAT
MAKES THEM SOUND GREAT ON
EVERY PART OF THE MUSIC.**



HPM 60

HPM 100

HPM 150

HPM 40

Most speaker companies try to impress you by describing the "wonderful" sound that comes out of their speakers.

At Pioneer, we think the most believable way to describe how good HPM speakers are is to tell you what went into them.

THE HPM SUPERTWEETER: SPEAKER TECHNOLOGY RISES TO NEW HIGHS.

In many speakers, you'll find that the upper end of the audio spectrum is reproduced by an ordinary tweeter.

In HPM speakers, you'll find that the high frequencies are reproduced by a unique *supertweeter*.

It works by using a single piece of High Polymer Molecular film, (hence the name HPM) that converts electrical impulses into sound waves without a magnet, voice coil, cone, or dome.

And because the HPM supertweeter doesn't need any of these mechanical parts, it can reproduce highs with an accuracy and definition that surpasses even the finest conventional tweeter.

As an added advantage, the HPM film is curved for maximum sound dispersion. So unlike other speakers, you don't have to plant yourself in front of an HPM speaker to enjoy all the sound it can produce.

MID-RANGE THAT ISN'T MUDDLED.

For years, speaker manufacturers have labored over mid-range driver cones that are light enough to give you quick response, yet rigid enough not to distort.

Pioneer solved this problem by creating special cones that handle more power, and combine lower mass with greater rigidity. So our HPM drivers provide you with cleaner, and crisper mid-range. Which means you'll hear music, and not distortion.

WOOFERS THAT TOP EVERY OTHER BOTTOM.

Conventional woofers are still made

with the same materials that were being used in 1945.

Every woofer in the HPM series, however, is made with a special carbon fiber blend that's allowed us to decrease the weight of the cone, yet increase the strength needed for clarity. So you'll hear the deepest notes exactly the way the musician recorded them.

And because every HPM woofer also has an oversized magnet and long throw voice coil, they can handle more power without distorting.

OTHER FEATURES YOU RARELY HEAR OF.

Every HPM speaker has cast aluminum frames, instead of the usual flimsy stamped out metal kind. So that even when you push our speakers to their limit, you only hear the music and never the frames. In fact, our competitors were so impressed, they started making what look like die cast frames, but aren't.

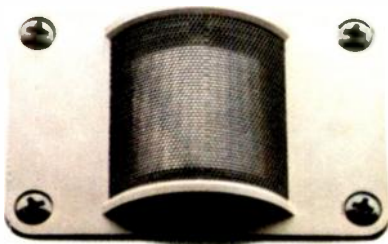
HPM speaker cabinets are made of specially compressed board that has better acoustic properties than ordinary wood.

Their speakers have level controls that let you adjust the sound of the music to your living room. And these features are not just found in our most expensive HPM speaker, but in every speaker in the HPM series.

All of which begins to explain why, unlike speakers that sound great on only part of the music, HPM speakers sound great on all of it.

At this point, we suggest you take your favorite record into any Pioneer Dealer and audition a pair of HPM speakers in person.

If you think what went into them sounds impressive, wait till you hear what comes out of them.



The High Polymer Molecular Supertweeter. So incredible, we named a whole line of speakers after it.



You'll never hear a sound out of these die cast aluminum speaker frames.



Level controls that let you adjust the sound to your listening area.

PIONEER
We bring it back alive.



**WHAT COMES OUT
OF A SPEAKER IS ONLY
AS IMPRESSIVE AS
WHAT GOES INTO IT.**

Pickering's all NEW OA-3A Open Audio Stereo Headphones...

**With Special Adapter for use with
Portable Radios, TV Sets and Tape Recorders.**



**LIGHT IN WEIGHT!
SUPER IN SOUND!**
and it's made in the U.S.A.



Open Audio means you can enjoy the sound yet be part of what's going on around you. Just plug the special adapter into the earphone jack of any Mono Cassette Recorder, Portable Radio or TV Set and enjoy perfect sound everywhere you go.

- **SOUND PERFECTION.** You have to listen to believe.
- **REVOLUTIONARY.** So light. So comfortable to use.
- **OPEN AUDIO.** Enjoy the sound. Yet, be part of what's going on around you.
- **PREDICTION.** The OA-3A will be your favorite "component".

*Hear them at your nearest Pickering dealer or
for further information write to:*

PICKERING
"for those who can hear the difference"

Pickering & Co., Inc.,
Dept. R 101 Sunnyside Blvd.,
Plainview, New York 11803

HIGH FIDELITY

FEBRUARY 1979

VOLUME 29, NUMBER 2

MUSIC AND MUSICIANS

- 4 **Bach Flipped, by Jupiter** *Leonard Marcus*
- 16 **The Witch of Eighth Avenue** *John Culshaw*
- 53 **The Broadway Voice: Part II** *Conrad L. Osborne*
- 61 **RCA's Otello: Challenging the Best**
David Hamilton
- 64 **Beethoven Piano Sonatas Times Three**
Harris Goldsmith

AUDIO AND VIDEO

- 20 **Too Hot to Handle**
- 22 **News and Views**
- 24 **Equipment in the News**
- 30 **Video Topics**
- 33 **Equipment Reports**
McIntosh Mac 4100 receiver
Denon DP-2500 turntable
JVC T-3030 tuner
Audio International CM-301 preamp
Ortofon Model MC-10 phono pickup
Burwen TNE-7000 Transient Noise Eliminator
- 44 **Bits and Particles** *Larry Zide*
Will technology make your tape deck obsolete?
- 49 **Taped Programs for Your Car** *Harold A. Rodgers*
How to make them, how to choose them

REVIEWS

- 61 **Featured Recordings**
Otello Beethoven piano sonatas
- 67 **Classical Records**
Levine's Mahler Scotto's Butterfly
- 68 **Critics' Choice**
- 92 **The Tape Deck** *R. D. Darrell*
- 94 **Theater and Film**
Madame Bovary *The Boys from Brazil*

BACKBEAT

- 101 **Chick Corea's Musical Macrocosm** *Len Lyons*
- 105 **The Oldest Established Permanent Floating Disco**
William Kanner
- 109 **Input Output**
- 110 **Records**
James Brown Kate and Anna McGarrigle
- 114 **Breakaway: The Clash** *Toby Goldstein*
- 115 **Spinoffs: Jazz** *Dor. Heckman/John S. Wilson*

ET CETERA

- 11 **Letters**
- 58 **HiFi-Croctic** *William Petersen*
- 89 **Reader-Service Cards**
- 121 **Advertising Index**



High Fidelity is published monthly at The Publishing House, Great Barrington, Mass. 01230 by ABC Leisure Magazines, Inc., a subsidiary of American Broadcasting Companies, Inc. Copyright 1979 by ABC Leisure Magazines, Inc. The design and contents are fully protected by copyright and must not be reproduced in any manner. Second-class postage paid at New York, New York, and at additional mailing offices. Authorized as second-class mail by the Post Office Department, Ottawa, and for payment of postage in cash. Yearly subscription in U.S.A. and Possessions \$9.95 elsewhere \$12.95. Single copies \$1.50. Subscribers: Send subscriptions, inquiries, and address changes to High Fidelity, 1 Sound Ave., Marion, Ohio 43302. Change of address: Give old and new addresses, including ZIP code. Enclose address label from last issue and allow five weeks for change to become effective. Postmaster: Send Form 3579 to High Fidelity, 1 Sound Ave., Marion, Ohio 43302. Postal Identification Number 24382.

Bach Flipped, by Jupiter!

On the fifth of next month, Voyager 1 is scheduled to pass Jupiter, whose gravity will be harnessed to flip the spacecraft toward Saturn and then out to the stars. In July, Voyager 2 (actually launched about ten days before Voyager 1 some eighteen months ago, but on a different trajectory) will also pass Jupiter before a similar cosmic journey. By the time you read this, Voyager 1 should have been sending highly publicized signals back to Earth for more than a month and Voyager 2 should be adjusting itself to begin its Jovian report.

What concerns me here is not the message Voyager sends back to us, but the one we have mailed to the universe using the two vehicles as postmen. Attached to the outside of each spacecraft is a package of some 120 photos, eighteen in color, greetings in 54 languages plus whale(!), twelve minutes of sounds of the Earth, and an hour and a half of music from Chinese to Pygmy. The format had to accommodate the dynamic range of Stravinsky's *Rite of Spring*, the last 4½ minutes of which is included, and it needed a minimum lifetime of 60,000 years (to the nearest star), preferably of 100,000,000 years (to the center of the galaxy).

Elsewhere in this issue we discuss two recent information-storage developments: metal-particle magnetic tape and digital technology. But the medium chosen by NASA as optimum for both density of information and longevity was a stereo LP disc, recorded in the conventional analog process (including the photos), at 16⅓ rpm, the speed of the "talking books" for the blind. The recording has, accidents expected, an expected lifetime in the billions of years, outlasting our sun.

After the pictures and greetings, Side 1's music begins and ends with Bach (first movement of *Brandenburg No. 2*/Richter on DG; *Gavotte* from *Partita No. 3* for solo violin/Grumiaux on Philips). Side 2 begins with Mozart (*Queen of the Night* aria/Moser on Angel) and ends with Beethoven (*Cavatina* from the *String Quartet No. 13*/Budapest on Columbia). The disc contains one more Bach (*Prelude and Fugue No. 1, WTC II*/Gould on Columbia), another Beethoven (first movement of the *Fifth Symphony*/Klemperer on Angel), recordings by Louis Armstrong, Blind Willie Johnson, and Chuck Berry, and twenty-one selections from other cultures. The copper discs are gold-plated and encased in aluminum covers for protection. Since the spacecraft will get battered during its anticipated eons of existence, NASA sensibly attached the package to it Bach-side in. Columbia's Special Products Division has remastered the recording for two discs at 33⅓ rpm in anticipation of public release, but at this writing it is bogged down in copyright negotiations with other record companies.

How do you store photos on an LP? Slides were focused into a video camera; the output, sampled by a video compressor, was brought down from a 5-MHz to an 8-kHz bandwidth, easily accommodated by the LP. Each photo took about eight seconds of signal (eventually four seconds when the tape was speeded up to conserve time), three images being needed for each color shot. Since both sides of the stereo groove were used, only about five minutes of the discs were needed to store all the visual material. I am told it sounds like a 60-Hz buzz (plus harmonics).

Last November, Random House brought out Carl Sagan's book *Murmurs of Earth*, which recounts the development of the Voyager's LP. It is in many respects an absolute delight, and the photos alone are worth the \$15 price. Such episodes as the difficulties in trying to limit politicians to recording just the word "hello" and NASA's attempt to protect interstellar recipients from photos of nude humans deserve musical-comedy treatment. Unfortunately, the book is plagued with typos; my favorite has Kurt Waldheim identifying himself as Secretary-General of the United States. I wish Random House had been more careful, just as I wish Columbia Special Products good luck. After all, the likelihood of extraterrestrials intercepting our message to them is nil. We are its true recipients.

Leonard Marcus



Cover photo by Bob Brody;
hand-lettering by Alan Henderson

LEONARD MARCUS
Editor

ROBERT S. CLARK
Editorial Director

KENNETH FURIE
Music Editor

ROBERT LONG
Audio-Video Editor

HAROLD A. RODGERS
Associate Audio-Video Editor

SHIRLEY FLEMING
Editor, Musical America

SUSAN ELLIOTT
Popular Music Editor

WAYNE ARMENTROUT
Director of Production

SARINA BROMBERG
Graphics Director

REBECCA ABBOTT
Copy Editor

LYNDA CARLOTTA
CYNTHIA PEASE
Assistant Editors

ISABEL PARKER
Editorial Assistant

EDWARD J. FOSTER
Consulting Editor

EDWARD GREENFIELD
European Editor

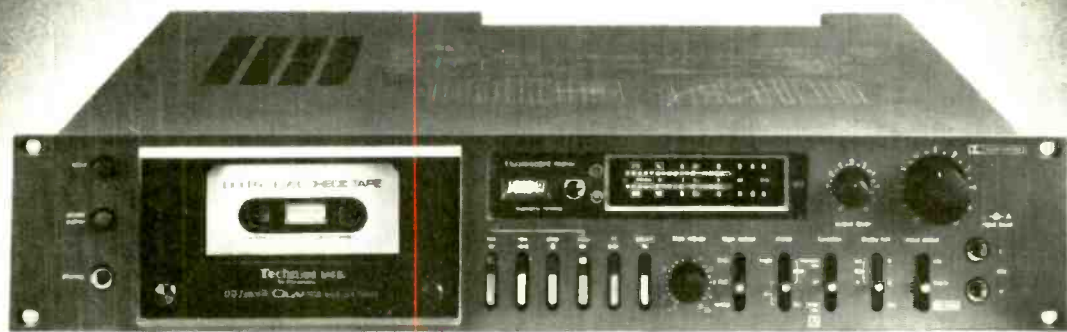
ABRAM CHIPMAN
JOHN CULSHAW
R. D. DARRELL
ALFRED FRANKENSTEIN
HARRIS GOLDSMITH
DAVID HAMILTON
DALE HARRIS
PAUL HENRY LANG
GENE LEES
IRVING LOWENS
ROBERT C. MARSH
FRED MILLER
H. C. ROBBINS LONDON
Contributing Editors

DAVID LEE
Circulation Director

JOHN D. KALLMANN
Circulation Manager

WARREN B. SYER
Publisher

You know what Technics quartz-locked direct drive does for records. Now listen to what it does for cassettes.



Accuracy good enough for even the most demanding professional, that's what Technics quartz-locked direct-drive turntables are all about. And that's why radio stations use them and discos abuse them.

Now you can record your records as accurately as a Technics turntable plays them. With the RS-M85, our new quartz-locked direct-drive cassette deck. Not only does it have the kind of transport accuracy that's hard to beat, it has that kind of price, too. The reason for all this accuracy: The performance of Technics direct drive combined with the precision of our quartz oscillator.

The RS-M85's servo-controlled system compares the motor rotation with the unwavering frequency of the quartz oscillator and instantly applies corrective torque if any speed deviations are detected.

To complement that accuracy Technics RS-M85 has a Sendust head with a high-end frequency response of 18,000 Hz, low distortion and excellent dynamic range.

Since there's nothing ordinary about the RS-M85's

performance, there's nothing ordinary about its meters. The RS-M85 features Fluorescent Bar-Graph meters. They're completely electronic and therefore highly accurate. Response time is a mere 5 μ s. There's also a peak-check mode plus two selectable brightness levels.

To all this sophistication, the RS-M85 adds all this: A separate, coreless DC motor for reel drive. Dolby NR[®] Full IC logic control in all modes. A low-noise, high-linearity amplifier section. And a 3-position bias/EQ selector with bias fine adjustment.

Also available is Technics RP-070. An optional full function infrared wireless remote control.

Technics RS-M85. Compare specifications. Compare prices.

FREQ. RESP. (CrO₂): 20-18,000 Hz. WOW AND FLUTTER: 0.035% WRMS. S/N RATIO (DCLBY): 69 dB. SPEED DEVIATION: No more than 0.3%.

Technics RS-M85. A rare combination of audio technology. A new standard of audio excellence.

[®]Dolby is a trademark of Dolby Laboratories, Inc.

Technics
Professional Series

Q • How close can hi-fi get to an authentic musical experience?

A • Slip on new Audio-Technica Stereophones and hear for yourself.

If you want to find out how good the new Audio-Technica Stereophones really are, don't just compare them with other headphones. Put them up against the very finest *speaker* systems. But don't just listen to the equipment. Listen to the *music*. And be ready for a surprise!

Judged on the basis of flatness of response, freedom from distortion, transient response, sensitivity, and independence from room acoustics, these new dynamic and electret condenser models are perceptibly better sounding than speaker systems costing hundreds of dollars more.

And if you think that great performance can only come from heavy, bulky stereophones, get ready for another surprise. Our heaviest model is less than 7½ ozs. and our lightest is an incredible 4¾ ounces light. Comfort that lasts an entire opera if you wish.

For all the facts, send for our catalog. But for the revealing truth about stereophone performance, listen and compare at your nearby Audio-Technica showroom. It will be a great *musical* experience.



Model ATH-7
Our finest Electret Condenser with LED peak level indicators
\$149.95

Model ATH-1
The moving coil dynamic stereo-
phone that weighs just 4¾ oz.
\$29.95

 **audio-technica**
INNOVATION □ PRECISION □ INTEGRITY

AUDIO-TECHNICA U.S., INC., Dept. 29-H, 33 Shiawassee Avenue, Fairlawn, Ohio 44313
Available in Canada from Superior Electronics, Inc.

CIRCLE 5 ON PAGE 89

COMING NEXT MONTH

In March we view the state of the recording art today—and prospects for tomorrow—through the eyes of several of its leading practitioners: John Eargle, vice president for product development at JBL and author of the most respected text on studio technique now in print; Stan Ricker, head of the JVC Cutting Center in Los Angeles; Jack Renner, chief engineer of Telarc Records, a pacesetter in the "audiophile" disc field; and Bruce Rothaar, design engineer for Soundstream, Inc., which has pioneered in the application of digital technology to recording. Through interviews with these men we obtain many insights into the best the recording process is capable of achieving from the studio through mastering to manufacture. And two of HF's editors take differing slants on the implications of it all. Plus Lees Side, Culshaw at Large, the Autophile, regular BACKBEAT features, and more.

SOLUTION TO HIFI-CROSTIC

After a month's absence, the HiFi-Croctic resumes in this issue on page 58. The solution to HiFi-Croctic No. 42 will appear in this space next month.

ADVERTISING

Main Office: Robert J. Ur Sr., Director of Advertising Sales, The Publishing House, Great Barrington, Mass. 01230. Telephone: 413-528-1300.

New York: ABC Leisure Magazines, Inc., 130 E. 59th St., 15th floor, New York, N.Y. 10022. Seymour Resnick, National Advertising Manager, 212-826-8381. George Dickey, Record Advertising Manager, 212-826-8383. Ruth Elliott, Eastern Advertising Manager, 212-826-6923. Classified Advertising Department, 212-826-8393.

Midwest: ABC Leisure Magazines, Inc., 190 N. State St., Room 632, Chicago, Ill. 60601. Telephone: 312-782-1173. William P. Gordon, Midwest Advertising Manager.

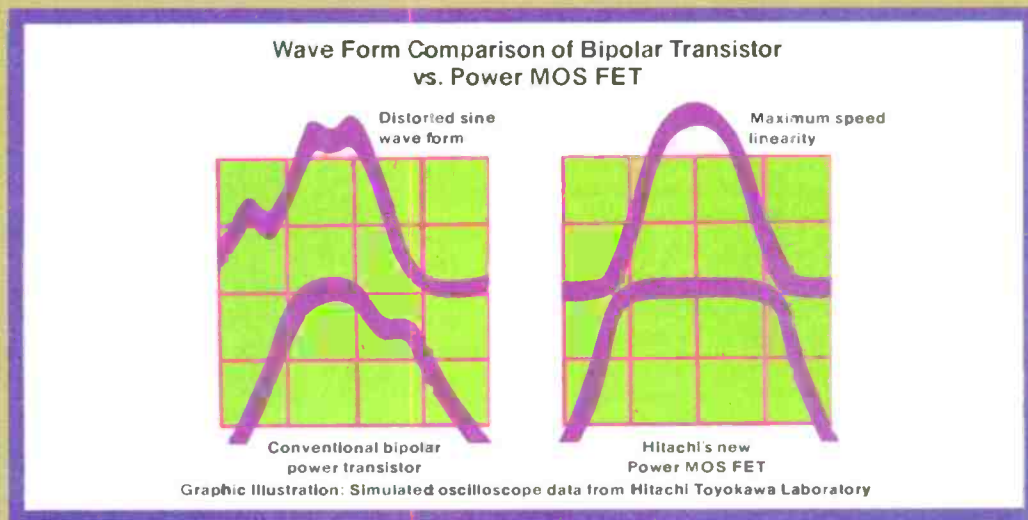
Los Angeles: ABC Leisure Magazines, Inc., 2020 Avenue of the Stars, Suite 245, Century City, Calif. 90067. Telephone: 213-553-2000. Andrew Spanberger, Western Advertising Manager; Janet Endrijonas, Associate Western Advertising Manager.

Tokyo: Japan Advertising Communications, Inc., New Ginza Bldg., 7-3-13 Ginza, Chuo-ku, Tokyo 104, Japan. Telephone: (03) 571-8748. Shigeru Kobayashi, President.

High Fidelity and High Fidelity/Musical America are published monthly by ABC Leisure Magazines, Inc., a subsidiary of American Broadcasting Companies, Inc. Warren B. Syer, President; Herbert Keppeler, Senior Vice President; Photographic Publishing Division: Leonard Levine, Vice President; Advertising: Warren Tuohy, Vice President; Finance: David Lee, Circulation Director; Cathleen Aloisi, Personnel Director. Member Audit Bureau of Circulation. Indexed in Reader's Guide to Periodical Literature. Current and back copies of High Fidelity and High Fidelity/Musical America are available on microfilm from University Microfilms, Ann Arbor, Mich. 48106. Microfiche copies of these magazines (1973 forward) are available through Bell & Howell Micro Photo Division, Old Mansfield Road, Wooster, O. 44691.

Editorial correspondence should be addressed to The Editor, High Fidelity, Great Barrington, Mass. 01230. Editorial contributions will be welcomed, and payment for articles accepted will be arranged prior to publication. Unsolicited manuscripts should be accompanied by return postage.

The world's fastest power amplifier



Hitachi Power MOS FET

Hitachi's HMA-6500 Stereo Power Amplifier with the incredible Power MOS FET offers ultra-high switching speed to dramatically reduce output and frequency distortion. At 50 watts output from 20 Hz to 20 kHz, there's no more than 0.02% total harmonic distortion. And the HMA-6500 has such wide linearity that it refuses to distort even when confronted with the most intense dynamic peaks. Frequency response is ruler flat from DC to 100 kHz, with no crossover distortion.

Add the performance-matched HCA-6500 Stereo Control Amplifier and the FT-8000 Digital Synthesizer Tuner. Both are sleek and stylish performers. The HCA-6500 gives you total control without adding any audible noise or distortion. The FT-8000 is nothing short of an electronic miracle, with digital frequency readout, all-electronic front end, clock function and six station memory.

The HMA-6500, HCA-6500 and FT-8000 – the fastest and the finest from Hitachi.



 **HITACHI**
A sound investment

Yamaha goes its separates performance,

We've never done things the conventional way. Witness our legendary B-1 and C-1 separates. These components, utilizing Yamaha-developed Vertical-FET technology, brought into being a new level of natural, accurate sound, advanced features and dramatic styling. Our new C-4 and M-4 separates follow in this tradition, while doing some precedent setting of their own.

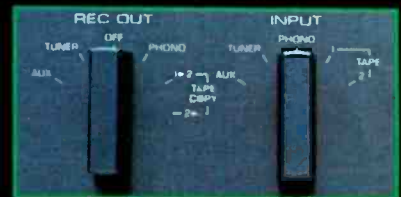
C-4 We were determined that the performance of the C-4 should put you in touch with the outermost limits of the audio art. So it has the most advanced circuitry imaginable to give you sound so real and true, you'll swear it's live. State-of-the-art DC circuitry in the phono preamp section reduces distortion to a miniscule 0.0035% at 2V output. Signal-to-noise ratio has been tamed to the virtually inaudible level of 97dB at 10mV. Plus we've added an exclusive Current Noise Reduction Circuit to maintain this high S/N ratio regardless of varying impedances caused by using different cartridges. But the sound of the C-4 goes beyond super specs and state-of-the-art circuitry. You have to hear the sound to believe such pure, musical tonality could pass through a piece of electronics.

The C-4's features put you in total command of its superb sound. Unheard-of tone control is yours with the exclusive, continuously variable turnover frequencies for the bass and treble controls. No need to hook up an expensive outboard parametric or graphic equalizer to make meaningful tone adjustments. The C-4 gives you the

best of both at the twist of a finger. And with the C-4, you don't have to settle for anything less than the absolute optimum performance from your choice of phono cartridge. Select from five ranges for both capacitance and resistance to perfectly

match the amp's load resistance to your cartridges' characteristics. You also have the luxury of indulging in the beautifully transparent highs available from a moving coil cartridge, because we've outfitted the C-4 with its own head amp. It provides the boost necessary for a moving coil cartridge, saving you the expense of buying a separate head amp or transformer. Completely independent input and output selectors give you the freedom of listening to a signal from one source while recording a signal from another. Features like these make the C-4 a super-sophisticated device whose possibilities and applications are limited only by your imagination.

With graceful, yet bold styling, executed with ease-of-operation in mind, the C-4 is a marvel of modern technology leaving nothing to be desired but its ownership.



way. With unprecedented features and price.

M-4 Our passion for pure tonality reaches toward perfection in the M-4. To deliver the cleanest, most musical sound possible, we built it with DC circuitry in a dual mono amp configuration, each with its own signal path from input to output. The input section consists of dual-FET's in a differential configuration with a cascode bootstrapping circuit. So you get the unbeatable advantages of DC circuitry—minimal low frequency phase shift and maximum low frequency accuracy and musicality—while beating the inherent instability of DC circuitry.

The M-4's specs are nothing short of spectacular. THD takes a bow at an incredibly low 0.005% at rated output

0.005% THD

of 120W per channel into 8 ohms, 20Hz to 20kHz. Signal-to-noise ratio is, (please hold the ap-

plause) an utterly silent 118dB.

Again though, specs can't do the sound of the M-4 justice. When it comes to doing justice to amplifying a signal from a preamp (especially the C-4) we feel the M-4 deserves a standing ovation. If you love musically accurate sound coming from your speakers, you will be equally enthralled with the sound of the M-4.

And with its functional features.

Visually arresting LEDs monitor your amp's power output, while overload indicators allow you to see when you're pushing it beyond its intended limits. The M-4 is a musical experience you participate in. Drive two sets of speakers independently or simultaneously with the simple push of a computer-grade switch, as well as select

the DC or AC operating mode with the back panel switch.

And while you are driving your M-4, its drilled metal mesh top allows the amp to "breathe." It's just one example of the unique design philosophy of form-follows-



function in styling, features and performance.

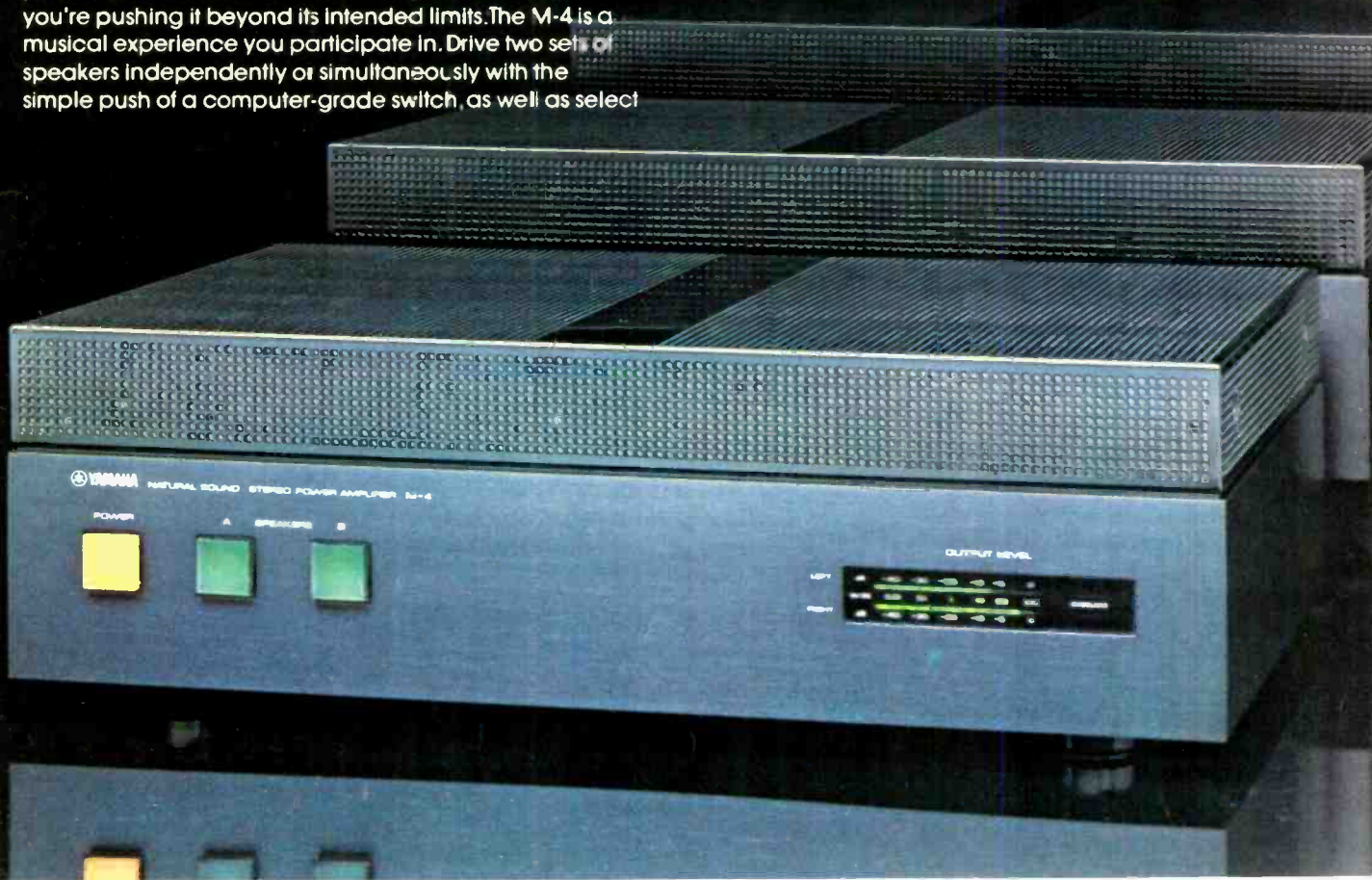
And that's what our new separates are all about. Unprecedented performance, features and styling. And price? Well, you can benefit from what we learned with our cost-no-object B-1, C-1. Without paying the price. Audition our new, rack-mountable (with optional kit), super separates, the C-4 and M-4, for yourself. It's an ear-opening experience you won't want to miss. For the name of your Yamaha Audio Specialty Dealer, check your Yellow Pages or write us.

From Yamaha, naturally.



YAMAHA

Audio Division, P.O. Box 6600, Buena Park, CA 90622



SO WHERE'S THE GUITAR PLAYER?



He vanished right in the middle of a riff. Eliminated by a low definition cartridge.

But ADC could have saved him. The XLM Mk III features the famous ADC tapered cantilever, which when combined with our tiny .004" x .008" rectangular nude diamond results in 50% less mass.

That's less than our previous

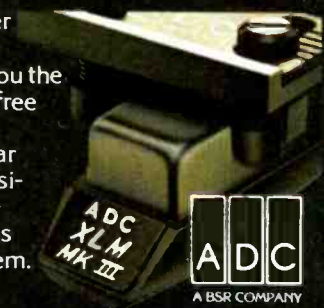
lowest mass cartridge, the highly acclaimed XLM Mk II. And because of its ultra linear frequency response, 10Hz to 20kHz \pm 1dB, every instrument sounds alive and natural, all at a record saving tracking force of $\frac{3}{4}$ to 1 $\frac{1}{2}$ grams.

If you'd like the complete facts about the ADC XLM cartridge, simply circle our

reader service number on the reader service card, and we'll send you the ADC brochure and a free record care gift.

So be good to guitar players and other musicians. Invest in something that understands them, and protects them.

An ADC cartridge.



Letters

To Score or Not to Score

My compliments to you on the excellent article by David Hamilton, "The Secret Life of a Song: Schubert's *Im Frühling*" [November]. It was a treat for me to read so thoughtful and insightful an article. Let's have more of these!

One small point, however: Would it not have been more helpful to the reader if the music had been included as well as the words? The article attempted (and largely managed) to describe the flow of the music along with the poetry—but having the printed score before one's eyes would have facilitated greater understanding. It can't be that a copyright question is at issue; Schubert's music is unquestionably "public domain." And I believe you can safely assume that those readers attracted to an article of this kind can readily follow the vocal line of the printed music.

Harold H. Plaut
Libertyville, Ill.

We did indeed contemplate publishing the music of *Im Frühling* but decided against doing so. One of the basic objectives of this article was to suggest ways of listening for readers of all musical backgrounds, and we were reluctant to do anything that might imply that the ability to read music was a prerequisite for understanding Mr. Hamilton's analysis. We agree that a score would have enhanced appreciation of it, for some, and in such instances in the future, we may include a brief note about score editions for those readers who want to have the music at hand.

More Discographies

David Hamilton's "Beyond Schwann: A Guide to Discographies" [October] set the stage beautifully for the announcement of a series of LP discographies that I have been preparing over the past several years. Foremost among them is the output of RCA Red Seal, 1950-73, and Columbia Masterworks, 1948-70. These run close to 300 pages each. Smaller discographies have been prepared covering the complete classical LP catalogs of Mercury and American Philips, Epic, Decca, and Capitol. There is also an Angel compendium and nearing completion are discographies of RCA's budget labels and early London LPs.

I'd like to hear from other HIGH FIDELITY readers so I can gauge just how large a market exists for such discographies. I am open to advice as to the most expedient manner of disseminating this material. Suggestions on size and format would be welcome as well.

Paul D. Vodicka
Cicero, Ill.

Readers interested in responding to Mr. Vodicka's proposal may write to him in care of this magazine.

Kempe Memorial Issue

Readers who have become aware of the late conductor Rudolf Kempe only recently, via Angel's and Seraphim's Strauss and Beethoven releases and the very favorable reviews in your magazine, may be interested to know that the current *Le Grand Baton* (the journal of the Beecham Society) is a Kempe memorial issue. It includes a discography, a list of opera broadcasts, and appreciations. Those interested should write to the Sir Thomas Beecham Society, P.O. Box 6361, Cleveland, Ohio 44101.

Charles R. Blyth
West Stockbridge, Mass.

Thomas E. Patronite, editor of *Le Grand Baton*, informs us that the 64-page issue is available for \$4.00 plus 50c postage and handling and that the discography alone may be purchased for \$2.00.

Schubert and Caruso

In his review of London's new Zubin Mehta recording of the Schubert Ninth Symphony [October], Harris Goldsmith states that "Mehta does not make the second-movement repeat. . . ." Surely Mr. Goldsmith, of all people, is aware that there is no repeat in the second movement. If he meant the third movement, then that movement contains more than one repeat. Since he has heretofore demonstrated that he knows the score in every sense, I hope it will be possible for him to clarify which repeats Mehta does or does not take, and in which movement.

In the same issue more than four pages are devoted to a feature review by David Hamilton of reissued Caruso recordings. This is an outstanding piece of work to the point of being awesome in its documentation and evidence of knowledge of the subject. It is one of the most thorough and well-considered reviews I can remember reading in HIGH FIDELITY.

John Canarina
Drake University Symphony
Orchestra
Des Moines, Iowa

Somewhere between Mr. Goldsmith's manuscript and the printed version Schubert was made to rearrange his symphony. The author had written "the second repeat in the scherzo. . . ."

Soundstream McCormack

David Hamilton's review "Toward a 'Complete' Caruso" [October] focused my attention on the first two Soundstream releases. I've never been a Caruso fan, and this recording only reinforced my feeling. However, the Soundstream-processed John McCormack album made me into a fan of that great lyric singer. All I can say is: Let's hear it for a "Complete" McCormack!

Larry W. Josephovitz
Silver Spring, Md.

Where Do I Sign?

I was very excited to read about the Audio-



It sounds
like music

An incredibly solid 30 Hz low end gives you bass response not found in any other speaker of this size. This is clean bass. It isn't phony. There is no "hump" around 80 Hz to give the impression of bass when there really isn't any. What's on your source material is what you're going to hear - accurately

There is no sacrifice at the high end either. Both front and rear-firing tweeters give you the uniform total acoustic power output that takes you into a "live-music" environment.

When you buy your next pair of speakers, do yourself a favor - audition the Interface:B's. If your criteria is musical accuracy, the Interface:B's are what you'll buy.



Electro-Voice®

a gulton company
600 Cecil Street
Buchanan, Michigan 49107

Interface™



Killer!

**That's a Jensen car audio system.
That's the thrill of being there.**

You've got to want the best. The max in music. The Killer. Then there's only one way to go.

The Jensen R430 car stereo receiver teamed with a Jensen Separates speaker system.

It all starts in the R430 Receiver. The AM/FM Stereo/Cassette unit that rivals many home receivers. Feather-touch electronic switches control Dolby® Noise Reduction, Loudness, Interstation Muting, and Local/Distance FM tuning.

A separate, trunk-mounted Power Amp gives you up to 60 watts RMS when you need it. The Bi-amplification mode distributes that power perfectly for knock-out realism.

More? Lots more. But look what the R430 teams up with.

The Jensen Separates. The revolutionary car speaker system that gives a faultless interpretation of everything the R430 sends it.

Imagine individual woofers, tweeters, and midrange units custom positioned throughout your car... for unparalleled sound reproduction. Coupled with an under-dash control unit that lets you balance the music to your personal taste. That's the Separates.

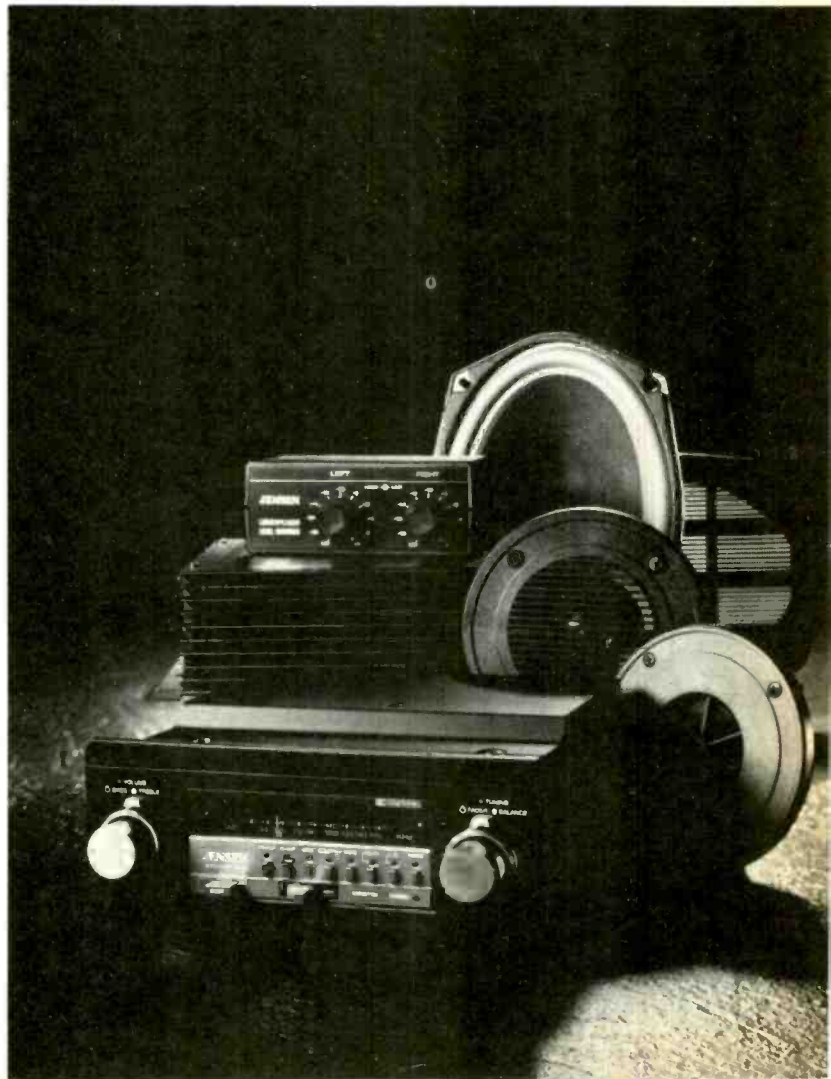
Touch the "Bi-Amp" switch on the R430 Receiver and each individual woofer, tweeter and midrange gets the precise frequency range and power to put you right in the concert.

This system's a killer. That's the Jensen R430 Receiver and Separates.

That's the thrill of being there.

JENSEN
The thrill of being there.

For more information, write Jensen Sound Laboratories Division of Pemcor, Inc., 4136 N. United Parkway, Schiller Park, Ill. 60176
® "Dolby" and "Dolby System" are registered trademarks of Dolby Laboratories, Inc.

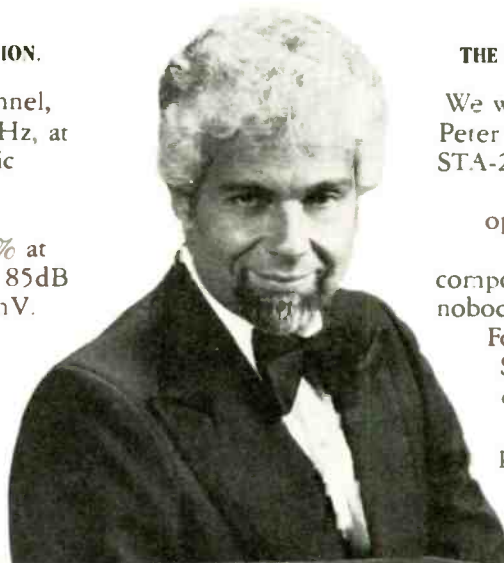


The specs are superb,
but they can't say it all. The
proof is in listening to the music.

Last November 17th
Peter Nero listened.
And bought
our Realistic® 2100.

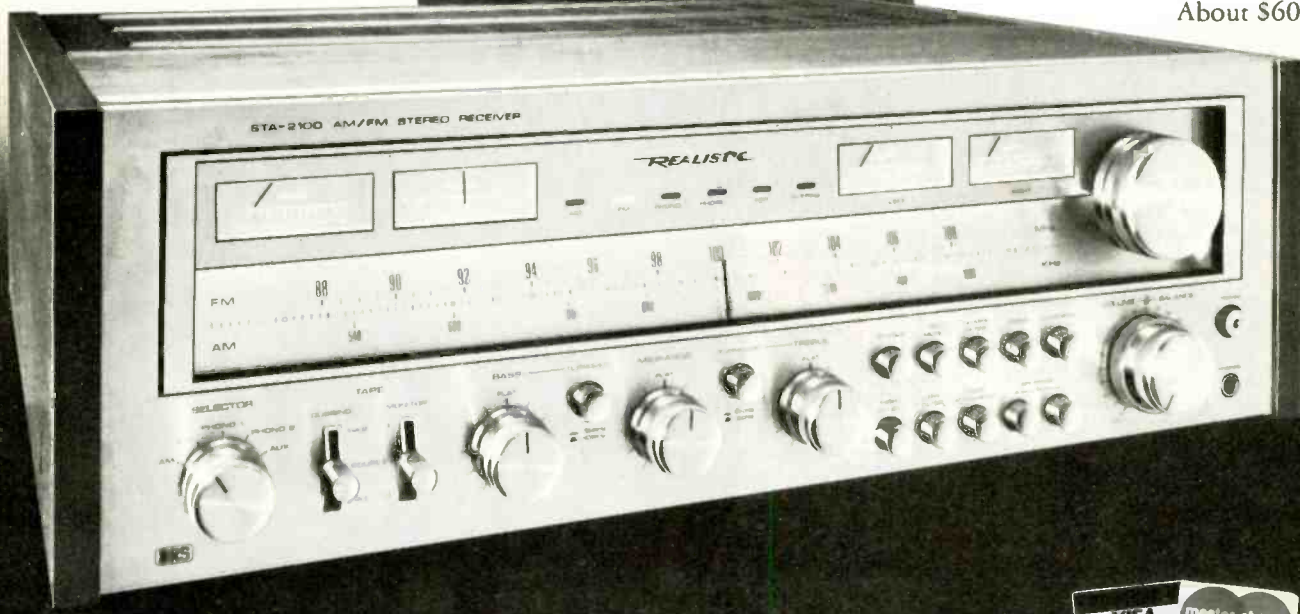
VERY HIGH POWER, VERY LOW DISTORTION.

Power Output: 120 watts per channel, min. RMS at 8 ohms, 20-20,000 Hz, at no more than 0.1% total harmonic distortion. Amplifier Response: 15-70,000 Hz \pm 2dB at 10 watts. Intermodulation Distortion: 0.05% at 85 watts. S/N Ratio: 65dB phono, 85dB aux. Phono Input Overload: 220mV. FM Sensitivity: 2.8 μ V for 50dB quieting. Capture Ratio: 1.3dB. FM Alternate Channel Rejection: 80dB. FM Channel Separation: 50dB at 1kHz. FM Stereo Total Harmonic Distortion: 0.1%. FM S/N Ratio: 70dB.



THE FINEST, MOST POWERFUL REALISTIC EVER.

We were elated when Pianist/Conductor Peter Nero told us he was buying our new STA-2100 receiver — which we build with loving care in one of our company-operated factories. What other audio store engineers and makes its own components? None that we know of. And nobody builds 'em better. In a test in our Fort Worth QC labs, we operated an STA-2100 at full power, 24 hours a day for three weeks, and it didn't fail in any way. Test-listen to it soon — perhaps the only hi-fi component of this power and quality with availability/service at over 6000 shops in the USA alone. About \$600.



DISCOVER REALISTIC HI-FI — SOLD ONLY AT:

Radio Shack®

A DIVISION OF TANDY CORPORATION • FORT WORTH, TEXAS 76102



These two cards honored at most Radio Shack locations. Retail price may vary at individual stores and dealers.

Recording Institute in Sedgwick Clark's article "Aspen Tapes Itself" [November]. I would appreciate it if you could tell me where I should write to apply for the course.

Seth Joel
Alexandria, Va.

The Aspen Music Festival, which oversees the Institute's program, has an office at 1860 Broadway, New York, N.Y. 10028.

Does Anybody Know?

I would greatly appreciate some assistance in locating a source for seven-inch tape reels that have a four-inch inner core instead of the usual two-inch core. For years I had been able to secure these low-torque reels at my dealer's, but now he tells me they are not available, and inquiry at other dealerships brings the same response. Yet one is still able to buy prerecorded tape on these large-center reels.

A. E. Zimmerman
Burbank, Calif.

Apparently none of the sources we've used in the past are supplying low-torque reels now either. Are there any readers out there who know where they can be found?

Friends of Edith Piaf

I want to thank you for the review by Gene Lees of the recently released album "Edith Piaf at Carnegie Hall" [September]. Your readers may be interested to know that

there is an organization in Paris called Les Amis d'Edith Piaf. The club keeps an eye on the quality of Piaf's disc releases, has big gatherings for fans at which a guest speaker often reveals his or her experiences with Piaf, and, of course, promotes her memorabilia. The address is Loi 1901, 5, Rue Crespin-du-Gast, 75 Paris XI.

Chu Moy
New York, N.Y.

Oboes Oubliées

In his September review of DG's disc of Ralph Vaughan Williams' concertos, Ahran Chipman stated that Mitch Miller's early Mercury LP of the oboe concerto was its premiere recording in SCHWANN. If memory serves me correctly, the concerto's dedicatee, Leon Goossens, recorded the work in England with Walter Susskind in 1952. This performance has now been reissued in England on EMI-World Records SH 243, and it's a stunning one.

One other recording from the Fifties, now sadly unavailable, was made in England on HMV (HQM 1016) by Dame Evelyn Rothwell with her husband, Sir John Barbirolli, and the London Symphony. The album also contains the only recording of Sir Edmund Rubbra's Symphony No. 5, an impressive but neglected work.

Howard Wayne
Brooklyn, N.Y.

Bernstein and Eclecticism

Thank you for "Leonard Bernstein at

Sixty" by John Ardoin [August]. Bernstein's most lasting contribution may be his theater music, and a vital influence on him was passed over in the article—that of his longtime friend and mentor, Marc Blitzstein. The eclecticism of Mass is one of the outstanding characteristics of Blitzstein's opera *Pegina*. Blitzstein ranges from Dixieland jazz and spirituals to a more traditional musical language. It is this melding of the popular with the traditional that is Bernstein's greatest gift. He may be a more proficient technician than Blitzstein, but the latter's rich musical language is an unjustly forgotten influence on him.

Keith Hagen
Madison, Wis.

The fairest and most intelligent way to discuss "eclecticism" in styles is to acknowledge as one synonym its pariah counterpart, "pastiche," which didn't get used a single time by either Leonard Marcus in his editorial or John Ardoin in his Bernstein article. Surely both are entitled to their approval of Bernstein's eclecticism or even of eclecticism per se (as hard as it may be to approve or disapprove of as a general principle). But the huge and elusive subject of the development of a style needs treatment on its own, appraising the influence of composers: major and minor from all periods. Then the key question would be not whether a composer is justified in using materials and techniques of others, but whether his use of them makes us forget they are secondhand.

Timothy Ransom
Atlanta, Ga.

BOB LIFTIN THINKS YOU ARE READY FOR GRAND MASTER™ TAPE. ROY CICALA HAS HIS DOUBTS.

Bob Liftin, Regent Sound Studios, New York City

Roy Cicala, The Record Plant, New York City



We asked Bob Liftin and Roy Cicala if home audio buffs were ready for a tape as sophisticated as Grand Master.

Both Bob and Roy are nationally famous recording engineers who've been using Grand Master in the studio since 1973.

Bob said, "Sure they're ready. Grand Master's dramatic 4 to 8 dB improvement in signal-to-noise ratio allows a guy to hit the tape 3 to 6 dBs harder and still get better distortion figures."

Roy wasn't so sure. "Of course, Grand Master sounds better. But how many home systems are sensitive enough to pinpoint the improvement?"

Noting the difference of opinion, we asked other top engineers.

Most agreed with Bob. (Sorry, Roy.)

So now, we make 4 new versions of Grand Master. Cassette. 8-track. Open reel. And a new Grand Master II high-bias cassette.

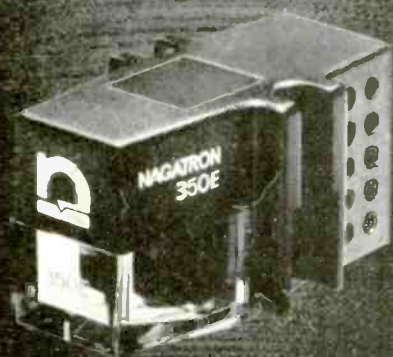
We think you're ready for them. Even if Roy Cicala isn't sure.

GRAND MASTER BY AMPEX. WE THINK YOU'RE READY FOR IT.

Ampeg Corporation, Magnetic Tape Division, 401 Broadway, Redwood City, California 94063 (415) 367-3887



FOR THE RECORD



NAGATRON



There is a new reference standard in phono cartridges. The name is Nagatron. And the difference is clear.

Samarium-cobalt magnets, crystalline aligned diamonds and an array of cantilever constructions are but a few of the latest advances employed in Nagatron cartridges to deliver the clean transients and tonal clarity available from your record grooves.

On the record, it's the best you can do for your records.

NAGATRONICS CORP.
2280 Grand Avenue, Baldwin, NY 11510

CIRCLE 23 ON PAGE 89

Culshaw at Large

The Witch of Eighth Avenue

by John Culshaw



NEW YORK—Humperdinck's *Hansel and Gretel* and the problem of finding a cab at theater time were foremost in my mind when it happened; but what it was I shall come to a little later.

I had just left a discussion about the intermission talks I am giving this season during the Metropolitan Opera broadcasts. The first was to occur during *Hansel and Gretel*, a piece I have always adored. A few weeks earlier I had listened to the reissue of Karajan's superb performance recorded in the prestereo Fifties (and marveled, incidentally, at the production techniques applied by Walter Legge in those early days), and only the night before I had reread the original story by the brothers Grimm. "Original" is not, of course, quite the right word, because variations of the tale stretch back over centuries; but of all of them the Grimm version is the most horrific. Humperdinck, in collaboration with his sister, who wrote the libretto, eliminated the horror and replaced it with charm and humor. One wonders

what would have happened if Richard Strauss, who conducted the first performance, had composed it instead and to a libretto based strictly on the story. I guess that the witch would have come out something like Klytämnestra, the mother like Herodias, the father like Faninal, Hansel like Octavian, and Gretel like Chrysothemis; and we can be quite certain there would have been no Sandman or Dew Fairy. It is perhaps as well that the idea did not occur to him, and anyway he loved Humperdinck's version.

What preoccupied me as I crossed Columbus Circle at about seven-thirty that evening was whether the witch is more effective when sung by a tenor rather than a mezzo, and that depends on what is meant by "effective." Despite Humperdinck's elimination of the nastiness of the original Grimm story, the fact remains that children enjoy being mildly frightened if they feel they are in a secure environment; and so, of course, do adults—the horror film has been with

FISHER INTRODUCES THE WORLD'S FIRST CASSETTE DECK WITH WIRELESS REMOTE EDITING.

Tape recording will never be the same.

In Fisher's 41 years of audio leadership, we've introduced many important high fidelity "firsts." But we honestly think the new CR4025 tape deck is one of our most exciting and practical innovations.

Remote electronic editing is as important an advance in tape recording as the cassette.

Now for the first time, you can really enjoy creating your own personal music library from FM broadcasts or record albums. The editing is done electronically while recording. A great leap forward from the old way of recording... without jumping up and down every 3 minutes to edit.

Fisher's wireless remote electronic editor makes tape recording a pleasure. The CR4025 tape deck has a built-in wireless receiver that operates the deck's solenoid-actuated Pause mechanism. The remote control transmitter operates the Pause control instantly from up to 20 feet away. Relax, listen, and capture the selections you want to keep at the push of a button.

New guide to buying high fidelity equipment. Send \$2 for Fisher Handbook with your name, address to Fisher Corp., 21314 Lassen St., Chatsworth, CA. 91311.

Zap! You eliminate any commercial or announcer's voice from your off-the-air FM broadcast recording... or skip any unwanted track on an album you're taping from.

Of course, this fantastic convenience wouldn't be worth much if you had to sacrifice performance. Fortunately, you don't — the CR4025 has the excellent frequency response and extremely low wow & flutter that you expect from Fisher, plus Dolby noise reduction for clean, noise-free recordings.

The Fisher CR4025 is priced at \$270* and is available at selected audio stores or the audio department of your favorite department store.

New guide to buying high fidelity equipment. Send \$2 for Fisher Handbook, with name and address to Fisher Corp., Dept. H, 21314 Lassen St. Chatsworth, Calif. 91311.

*Manufacturer's suggested retail value. Actual selling price is at the sole discretion of the individual Fisher dealer.

 **FISHER**

The first name in high fidelity.

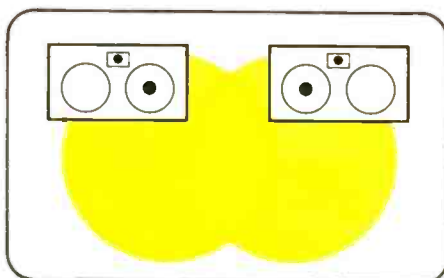




The perfect pair.

The new Koss CM/530 bookshelf speakers with the perfect mirror-image sound.

Here is truly a remarkable achievement in loudspeaker design and performance. The Koss CM/530 bookshelf loudspeaker sets an entirely new standard in extended bandwidth response, high efficiency, low distortion and perfect mirror-image for speakers in its size and price range and within

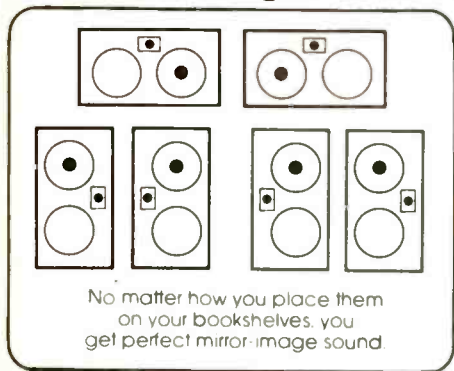


have created a perfectly matched set of bookshelf speakers that can be placed horizontally or vertically without losing the perfect right to left imaging, an incredible degree of dispersion and the beautiful Sound of Koss.

To create the breathtaking depth and clarity in the CM/530, Koss engineers used an 8-inch passive radiator to radiate the sound energy over the lower two octaves. This allowed them to use an 8-inch woofer to reproduce the critical sounds in the midrange up to 3,000 Hz. In addition, the CM/530's 1-inch dome tweeter reproduces

an exceptionally flat energy output and unusually low distortion that provides for a transparency and liveliness not found in other competitive speakers.

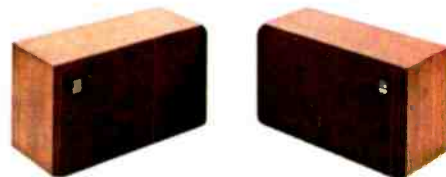
Ask your Audio Dealer to give you a live demonstration of a matched pair of bookshelf speakers. You'll be amazed at their perfect mirror-image sound. And while you're at it, try the perfect answer to private listening: Koss stereophones. But by all means, write, c/o Virginia Lamm, for our full color speaker and stereophone catalogs. The Sound of Koss will do great things for your records or tapes . . . and your image.



today's technological capabilities.

By designing a left and a right channel configuration for the passive radiator, the woofer and the tweeter, Koss engineers

© 1978 Koss Corp



KOSS CM/530 BOOKSHELF SPEAKERS
hearing is believing™

KOSS CORPORATION, 4129 N. Port Washington Ave., Milwaukee, WI 53212. International Headquarters. Milwaukee / facilities: Canada · France · Germany · Ireland · Japan

us in one form or another ever since the cinema began. Humperdinck's witch has to be at the very least menacing. (The Grimm witch is unquestionably female, but in earlier versions of the story the equivalent character, who also gets pushed into an oven at the end, is a giant and unquestionably male.)

I have heard the part sung by both voices on various occasions and was trying to sort out my recollections as I made my way toward Fifty-seventh Street (two-way traffic, and therefore more chance of a cab). Without wanting to be ponderous about a mere fairy tale, the witch's end can be seen as distasteful if the character has been played even slightly sympathetically. (It has often been noted that after the war many Germans could not take *Hansel and Gretel* at all, because the witch's oven was too close a reminder of the gas chambers at Auschwitz. If that sounds farfetched today, it doubtless did not seem so then.) My conclusion, therefore, was that even Humperdinck's diluted witch really should be played by a woman, because an unreal threatening woman is likely to be more sinister than an unreal threatening man. I mean, I said to myself, if I were to put myself in Hansel's position in that cage, would I be more frightened of a woman who was determined to eat me than I would of a man? And the answer was perfectly clear: I'd be more frightened of the woman because I'd be more aggressive toward the man.

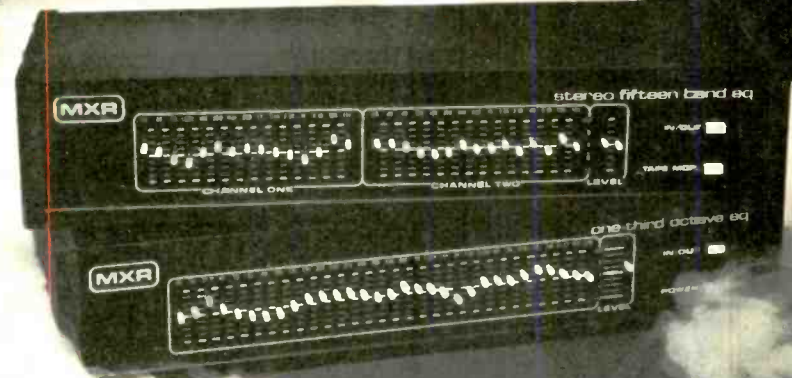
It was at the very instant that I reached this profound judgment that a character jumped out of a doorway on Eighth Avenue and held a knife at my left eye. All thoughts of aggression toward male witches evaporated in an instant, and in about five seconds he managed to remove my wallet and disappear with an alacrity that would have been the envy of Alberich even when he had possession of the Tarnhelm.

So my conclusion, after I had found a sympathetic cab driver who took me home for nothing, is that it doesn't matter a hang whether Humperdinck's witch is sung by a man or a woman so long as the portrayal isn't funny. Hansel and Gretel had no right to push the witch into the oven unless they were sure that they were about to be baked and eaten, but since they did so, they must have been convinced that the witch was evil. Evil isn't funny.

And incidentally, if the witch of Eighth Avenue happens to read this column, would he consider returning my wallet? ■

Most components just provide recreation

MXR provides Creation



Along with MXR's two newest equalizers—the Stereo Fifteen Band Eq and the One-Third Octave Eq. Two great new eqs that not only put you in complete control of your acoustic environment but provide even more creative contour of your music as well.

The Stereo Fifteen Band Eq is an expanded version of our popular ten band Stereo Graphic Eq. With two channels each having fifteen bands spaced 2/3 of an octave apart, you have even more creative power for bending, shaping, enhancing the sound. No matter how fine your home component system is, problems such as poor room acoustics or program quality may occur. The Stereo Fifteen Band Eq gives you the control to create the exact sound you desire.

The One-Third Octave Eq goes even further in providing precision control over your system's sound. A single channel unit, its thirty-one frequency bands are spaced 1/3 of an octave apart to give you the most creative power available at any price.

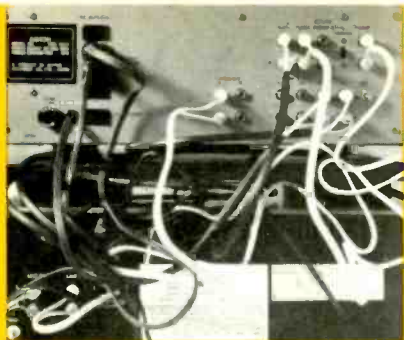
Both units feature a range of -12 to +12 decibels on each band, high slew rate (7V/microsecond) and incredibly wide dynamic range (better than 100 dB). The eqs feature walnut side panels (rack mounting hardware also included) and are built with rugged, reliable MXR quality.

Hear them perform at a fine audio dealer near you, or write MXR Innovations, Inc., 247 N. Goodman St., Rochester, N.Y. 14607.

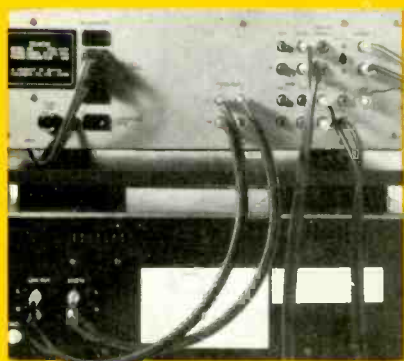
In all of creation, MXR keeps providing.

Also distributed in Canada by White Electronic Development Corporation, Ontario.

MXR Consumer Products Group




YOUR RACK'S TANGLE HAS A CURE:



NEW HALF-METER GOLD-ENS™

- No hanging patch cords from stacked components.
- Reduces RF interference and hum.
- Superior quality Gold-ens have multi-strand hot and shielded leads.
- Molded nylon covers over individually soldered connections.

 **discwasher, inc.**
1407 N. Providence Rd.
Columbia, Missouri 65201



Too Hot to Handle

One of my favorite local radio stations is received in stereo with a great deal of noise that is absent in mono. What can be done to improve the reception? My receiver is a Sansui 8080, and adjusting the antenna doesn't help.—Paz Y. Kahana, Cambridge, Mass.

A receiver typically requires about 22 dB more signal at the antenna terminals to provide as much quieting in the stereo mode as in mono. Your best bet to assure quiet stereo reception is to get the highest gain, directional FM antenna you can find, and then use low-loss shielded twin-lead (or coax) to get the signal down to the receiver. Antenna boosters rarely help.

Since your favorite station is local, we're surprised you're having problems. You may want to check to be sure that the receiver is functioning properly and that you have oriented the antenna for minimum multipath—not just for strongest signal.

I own a Dual 1225 turntable and, for the most part, have been satisfied with it. I recently purchased a Shure V-15 Type IV cartridge and loaded it into the arm. The sound is good, but with the tracking force and antiskating set correctly, the tone arm likes to drift outward, making accurate cueing nearly impossible. Can this problem be solved with the same tone arm? If not, is it possible to put a different arm on the Dual?—Rick Jensen, Lincoln, Neb.

The outward drift of the tone arm when cued is caused by the antiskating force. (We assume your turntable is level.) Frequently, the problem can be alleviated by increasing the friction between the cueing assembly and the arm. A piece of cloth adhesive tape on the bar may suffice; the thin, rubbery foam tape sold as weatherstripping works even better with some equipment. A very small piece of tape on the arm where it contacts the bar may also help. It is not practical to replace the tone arm on a changer, and few turntables afford absolutely precise cueing.

Would a recording made using speakers that deviate significantly from flat frequency response sound more faithful to the original music if the frequency response of the audio system is flat or if it approximates that of the speakers used by the mixing engineer? In other words, is an audio system always optimized by being adjusted to yield flat frequency response through the speakers?—Paul Thiel, Covington, Ky.

If you can duplicate both the speakers and acoustic environment the mixing engineer had, you will hear what you would have heard at the mixing session. That is not to say that you necessarily will hear precisely what he intended that you hear, however; some mix-down (and mastering) engineers regularly give the response a tweak here or there on

the assumption that they are compensating for the shortcomings of typical home equipment and making the sound more enjoyable for the home listener. Such practices, though part of the mystique of the pop-hit factories, influence classical recordings as well. In an ideal world, all equipment—including all speakers—would have flat response and the engineer could therefore predict precisely how you would hear his product. Failing that, the concept of "optimizing" the audio system eludes definition.

I recently purchased a Realistic tape-head demagnetizer to use on my Pioneer Model CT-4141E cassette deck. The instructions direct that the pole tips of the demagnetizer be placed against the entire surface of the recording head for one second. Unfortunately, I put the pole tips on both the recording and erasing heads for about 20 seconds. It seems to me that there has been a loss of volume on my deck, and I am now wondering whether I should have my heads checked for possible damage.—Marion Taubman, Brooklyn, N.Y.

We doubt that you have damaged your deck provided that it was turned off when you demagnetized and that the pole pieces of the demagnetizer were covered so that they didn't scratch the surface of the head. It is more likely that you left the heads more magnetized than when you began. If so, they will probably respond to another, correct demagnetization. The deck should be off, and the demagnetizer should be turned on while it is still well away (say a foot or so) from the heads. Bring the demagnetizer up to the heads slowly and move it back and forth slowly. Then remove it slowly to a foot or more away before turning it off. The time in contact with the heads is unimportant; what is important is that the demagnetizer be moved slowly toward, around, and away from the heads.

When checking your results, use a new tape. You may have partially (but permanently) reduced the highs on tapes played with a magnetized head.

I am considering the purchase of a time-delay device. My speakers are a pair of Bose 901s, and I am thinking about buying another pair as rear speakers through which the delayed signal will be fed. Is this feasible, considering the reflected-sound principle used by Bose?—Michael Nathal, Erie, Pa.

Yes, it is. And the diffuse sound field that Bose speakers tend to produce could make it work better than otherwise.

We regret that, due to the volume of reader mail we get, we cannot give individual answers to all questions.



Our 120's do something unusual. They work.

Anyone who uses 120 minute cassettes knows the tape is not only a lot thinner than the tape in a 60 minute cassette, it's also more susceptible to stretching, buckling, and tearing.

Yet few people realize the fault lies not in the tape itself, but in poorly constructed

cassette housings.

At Maxell, we build our cassettes to higher standards than the industry calls for. We use heavy-duty styrene in our cassette housing, Delrin guide rollers with precision steel pins and Teflon slip sheets. All of which help

eliminate sticking and jamming.

So if you're looking for a 120, why look for trouble.

Try Maxell. The two hour cassette that's guaranteed to work.

Forever.

maxell

Chikumagawa and Back—via Tokyo

Certainly TDK is not the only manufacturer that takes the design and manufacture of magnetic tapes seriously. But during a recent journalists' junket, sponsored by the company, to its Tokyo headquarters and Chikumagawa plant a couple of hours' journey to the north, we learned how truly impressive TDK's intensive research and development effort is. In the past we have been shown some astonishing equipment and processes at other tape factories. Yet, perhaps as a result of the understandable reluctance of tape companies to disclose, inadvertently or otherwise, secrets that may be of use to their competition, none has had so much to show us as TDK.

Some of our native skepticism may have been lulled by TDK's sumptuous hospitality; but even without these amenities, we would have been enthralled by TDK's use of a quantum-mechanical phenomenon (the Mössbauer effect, for those whose curiosity extends to such things) to check proper magnetization of a tape sample for research or quality-control purposes. And that does not begin to suggest the high technology in evidence. Checks for the proper composition of materials are made by means of chromatography, a technique that depends on the radiation "signatures" of certain atoms and molecules and the different rates at which they diffuse through various media. Physical characteristics of the tapes are verified not only by means of electron microscopy, which we have seen used elsewhere, but by X-ray diffraction as well.

In sophistication, the facilities for production rival those for r&d. Much automation is used throughout tape manufacture and packaging, and critical operations are carried out in special clean areas, differentiated into five levels of "cleanness." A-Level areas, for which controls are so stringent that the company president himself has not yet entered them, were the only ones to which we were denied access.

After this manufacturing tour de force the item of news most likely to interest consumers, though it is obviously important, seems almost anticlimactic: TDK is introducing a metal-particle cassette tape. We have heard a prototype demonstrated and have a sample in hand. There is some possibility that future developments will require some adjustment of its magnetic parameters, but TDK says the tape will be ready when decks that can use it are.

Aphex Patent Progresses

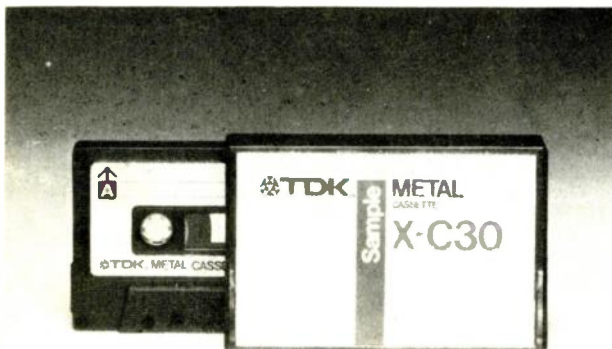
Can distortion and nonlinearity ever be constructive features of the audio reproduction chain? According to the developers of the Aphex Aural Exciter, a form of signal processing designed to add psychoacoustic enhancement to a recording, they can. Until the recent acceptance of the patent application on the process, descriptions of its inner workings were obscure at best and often downright misleading. Now that disclosure is permissible, we are told that the system—normally connected into a mixing console—receives its own two-channel stereo mixdown, which is subjected to a combination of nonlinear processing and time delay and added to the final mix to mimic the nonlinear behavior of the ear and trick the listener into hearing more spaciousness, brightness, and definition in the recording.

From what we could hear in a demonstration given at the Audio Engineering Society convention last November, the device definitely does add something to the music. When put in the final mix in quantities that are obviously audible, the Aphex effect is quite unpleasant; but this, of course, is not what the designers intend. When the level is kept suitably low (20 dB or more below the program), the effect is scarcely noticed at all—until it is switched out, and then the sound seems suddenly to go terribly flat.

Lest purists rail against gratuitous distortion being used to doctor their music, we should point out that quite a few popular musicians, including such notables as Linda Ronstadt, Carly Simon, James Taylor, Maynard Ferguson, and Neil Diamond, like Aphex and add it to their recordings. So you may have been listening to it—and liking it—for quite a while. Perhaps, in deference to the phenomenon, the audio lexicon will require a new term: creative distortion—as opposed to the destructive distortion that simply degrades signal quality.

Zenith Tries Components

Zenith is testing the waters of audio components with a few new product lines, including receivers, turntables, cassette decks, and loudspeakers. The three receivers span the power range from 15 to 40 watts (12 to 16 dBW) per channel with price points from \$230 to \$330. Three turntable models range from \$100 to \$250, the top of the line with belt drive and automatic operation. A front-loading cassette deck with Dolby noise reduction, three-position bias/EQ switching, and automatic shutoff and two Allegro loudspeakers round out the component offerings.



If you can find a receiver that does more.

DC configuration OCL power amplifier with fully complementary output stage

Bimodal electro-sensor relay protection and delay circuit with LED indication

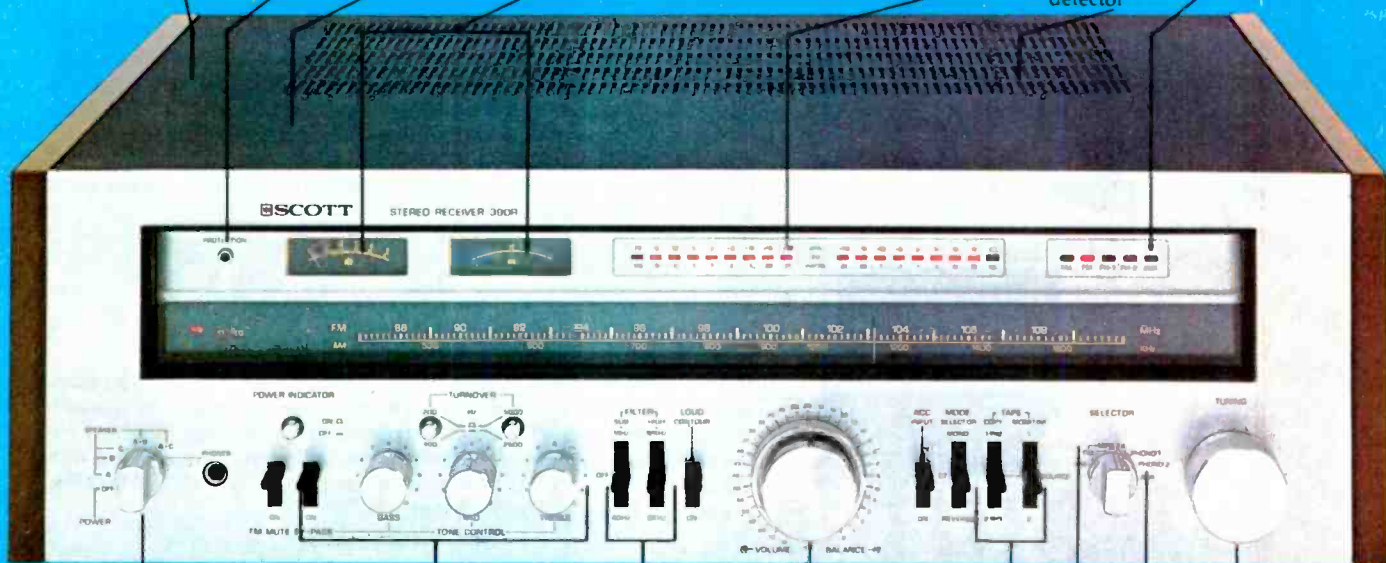
Differential current mirror loaded low noise input stage

Center channel and signal strength tuning meters

18 LED Analog to digital logarithmic power display indication calibrated in watts and dBW

3 stage IF amplifier incorporating 3 linear phase ceramic filters with differential limiter and quadrature detector

LED function indicators



Connections for 3 pair of speakers

11 position detent bass/midrange/treble tone controls with variable turnover frequencies and by-pass

Twin position active subsonic and high filters

32 detent logarithmic volume attenuator calibrated in dB

2 tape monitors with full tape copy capability

Multiplex filter

2 phono inputs

Gang FM tuning capacitor with twin stage dual gate MOS FET TRF amp

Buy it.

Scott's new 390R is perhaps the most complete receiver ever made.

A professional control center for your entire sound system, the 390R delivers a full 120 watts per channel min. RMS, at 8 ohms from 20-20,000 Hz with no more than 0.03% THD. And it offers more options, features and flexibility than you'll find on most separates.

Compare the Scott 390R with any other receiver on the market today. If you can find one that does more... buy it.

Scott's unique, gold warranty card. Individualized with your warranty, model and serial numbers, and expiration date. Scott's fully transferable, three-year parts and labor-limited

warranty is your assurance of lasting pleasure.

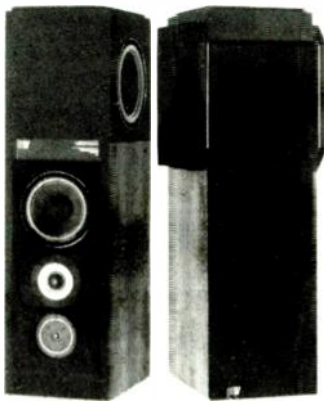
For specifications on our complete line of audio components, contact your nearest Scott dealer, or write H.H. Scott, Inc. Corporate Headquarters, 20 Commerce Way, Dept. IR, Woburn, MA 01801. In Canada: Paco Electronics, Ltd., Quebec, Canada.

SCOTT
Warranty Identification Card

Warranty Number: 101102
Model: 390R Receiver
Serial Number: 304 7832/662 1745
Expiration Date: September 15, 1981

SCOTT
The Name to listen to.
Makers of high quality high fidelity equipment since 1947.

Equipment in the NEWS



AR-9's smaller brother

Acoustic Research has followed its AR-9 (and broken its inveterate serial numbering pattern) with the AR-90, a somewhat smaller model that uses the same three drivers in the upper ranges but substitutes a 10-inch woofer for the AR-9's 12-inch. Pricing of the new model is expected to run under \$600, making it at least \$150 less expensive than its bigger brother.

CIRCLE 150 ON PAGE 89



Processed dynamics from RG

The Pro-20, one of a new series of RG Dynamic Processors, provides up to 20 dB of continuously variable expansion. Features include adjustable noise reduction, processing for both tape recording and playback, peak unlimiting, and LED display of the processing action for each channel. Distortion is rated at less than 0.05%. Three versions are available: a black rack-mount case (Pro-20B), silver panel with walnut ends (Pro-20W), and black panel with walnut ends (Pro-20BW). The BW costs \$410, the others \$395.

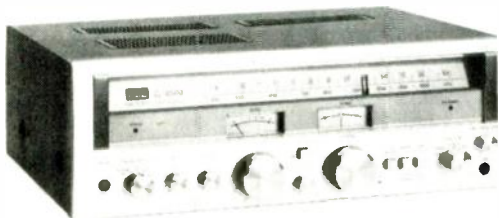
CIRCLE 137 ON PAGE 89



Memorex presents new audio tape

Memorex is offering High Bias audio cassette tape, replacing its chromium dioxide line. Its ferrite-crystal formulation is intended for use with "chrome" bias and 70-microsecond equalization settings. Reel locks in the new box, a redesign of the Philips type, will accept the cassettes with either edge facing out. High Bias tape comes in C-60 and C-90 lengths, priced at \$4.39 and \$5.99, respectively.

CIRCLE 141 ON PAGE 89



Sansui's receiver with PA capability

The Sansui G-4500 FM/AM receiver has separate signal-strength and channel-center meters and is equipped with a mike-mixing input that has its own level control for public-address applications. Minimum power output is rated at 40 watts (16 dBW) per channel; rated frequency response is 30 Hz to 15 kHz, +0.5, -1 dB. The G-4500, which comes in a simulated walnut-grain cabinet, costs \$320.

CIRCLE 138 ON PAGE 89



Dynamic loading in Speakerlab's woofer kit

Both drivers that make up the Nestorovic Woofer System of Speakerlab's three-way Model Thirty are active in the upper bass range; at lower frequencies some input is shifted away from the larger woofer, automatically adjusting loading of the smaller woofer to the drive frequency. The system, equipped with a three-position woofer-damping switch, has a rated ± 1 -dB frequency response of 100 Hz to 10 kHz. The price of the Model Thirty kit, with walnut enclosure, is \$330; a walnut-grain vinyl version costs \$285.

CIRCLE 139 ON PAGE 89



While the others were catching up, TDK was moving ahead.

Shortly after it was introduced in 1975, TDK SA, the world's first non-chrome high bias cassette, was accepted by most quality deck manufacturers as their high bias reference standard. This advanced, new cassette enabled their decks to perform to the limit of their capabilities. And because the decks are set in the factory to sound their best with SA, music-loving consumers made SA the number one selling high bias cassette.

The other tape makers set out in pursuit of SA, hoping someday to equal the performance of its Super Avilyn particle formulation and the reliability of its super precision mechanism.

But making the world's most advanced cassette was nothing new for TDK's engineers. They pioneered the high fidelity cassette back in 1968 and for more than a decade they've led the way in cassette tape technology. Over the last three years, they've refined SA and made

it clearly superior to the '75 version.*

That makes the music lovers happy; it means more music with less distortion. It makes the deck makers happy; they've been improving their decks and SA makes them sound better than ever. But for the competition, unhappily, it means a whole new standard to catch up to.

So if you'd like to raise your own recording standards, step up to TDK SA, the high bias reference tape backed by high fidelity's original full lifetime warranty.**

TDK Electronics
Corporation.
Garden City,
New York 11530

 **TDK**
The machine for your machine.™



*Today's SA has a maximum output level (MOL) more than 3dB better than that of 1975 SA at the critical high frequencies, and improved sensitivity across the entire frequency range. **In the unlikely event that any TDK audio cassette ever fails to perform due to a defect in materials or workmanship, return it to your local dealer or to TDK for a free replacement. ©1978, TDK Electronics Corp.

Again we turn the world around.

The world's first pure power DC receivers, the Sansui G-line, redefined the limits of musical fidelity. Sansui's capacitor-free DC amplifier design (patent pending) with super-high slew rate, ultra-fast rise time, and full transient response, makes music sound much more true-to-life.

Now Sansui does it again. With the new G-7500 and G-5500. Using the same exclusive DC circuitry all others are trying to imitate, these new models offer more watts per dollar than ever before.

The **G-7500** delivers 90 watts per channel, min. RMS, both channels into 8 ohms from 20 to 20,000Hz with no more than 0.025% total harmonic distortion, at a suggested retail price of only \$620.

The **G-5500**, at a suggested retail price of only \$465, offers 60 watts per channel with no more than 0.03% THD under the same conditions.

From their macro-designed power supplies, for rich, full sound over the widest frequency range, to their micro-sensitive double speaker-protection circuitry, the G-7500 and G-5500 are unbeatable.

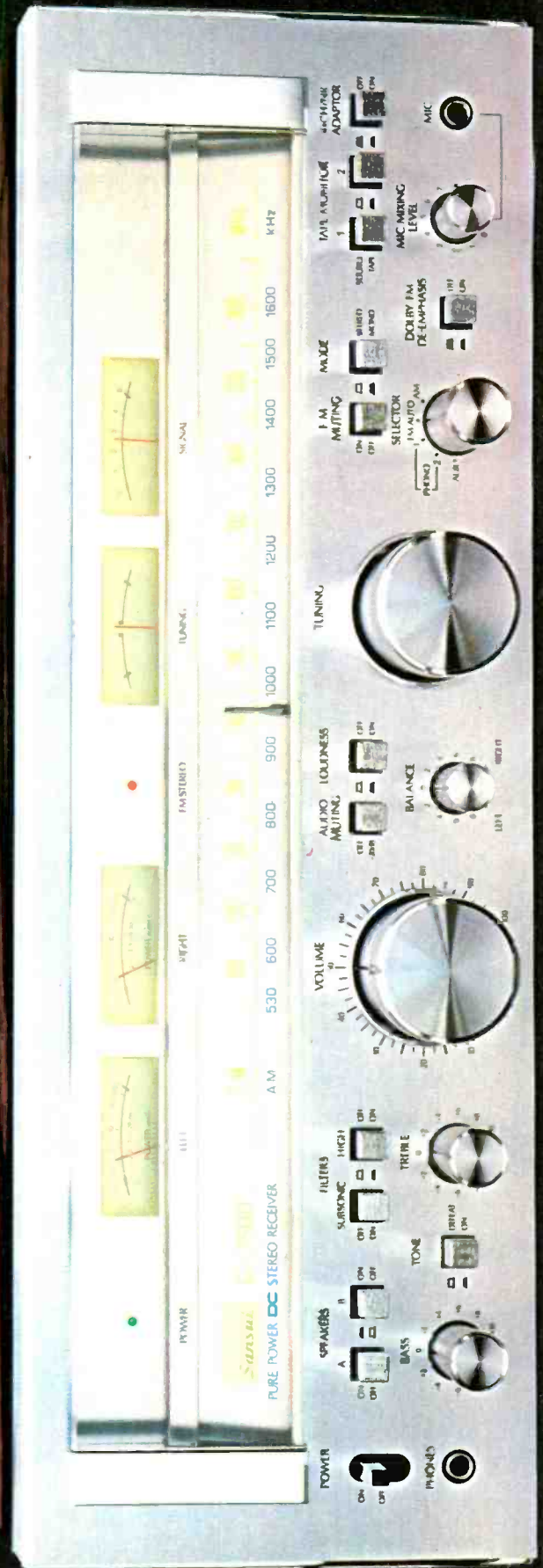
The FM sections further enhance Sansui's reputation for tuner excellence. Pinpoint selectivity and ultra-sensitivity to even the weakest signals guarantee pure and clean reception, always. And always with maximum stereo separation.

Let your franchised Sansui dealer demonstrate the comprehensive, human engineered features and controls. There's nothing in the world with quite the same feel as the Sansui click-stop attenuator and ultra-smooth tuning knob.



Now look carefully at the graceful styling, with elegant rosewood veneer cabinet. It is setting the trend for all other receivers.

For the best receiver values, the world is now turning to the newest DC by Sansui, the G-7500 and G-5500. Shouldn't you turn to Sansui, too?



SANSUI ELECTRONICS CORP.

Lynchurst, New Jersey 07071 • Gardena, Ca. 90247
 SANSUI ELECTRIC CO., LTD., Tokyo, Japan
 SANSUI AUDIO EUROPE S.A., Antwerp, Belgium
 In Canada: Electronic Distributors

Sansui

Crown separates aim at consumer

Though known for its pro and semipro equipment, Crown International has introduced two high-spec products designed expressly for the home market: the Straight Line One preamp and Power Line One amp. The latter is rated at 50 watts (17 dBW) per side into 8 ohms, 80 watts (19 dBW) per side into 4 ohms, or—at the flick of a back-panel switch—160 watts (22 dBW) mono into 8 ohms. Measures to minimize preamp RFI include removal of the phono preamplifier stage to a module that can be kept near the turntable. The Straight Line One costs \$549 with one phono module, the Power Line One, \$479.

CIRCLE 148 ON PAGE 89



Heathkit's linear-phase speaker

Heath's ASX-1383 three-way speaker system uses a compound curved baffle that is said to eliminate diffraction effects that cause transient distortion and inconsistent frequency response. The linear-phase design aligns the radiating surfaces of the drivers—a 10-inch woofer, a 5-inch midrange, and a 1-inch tweeter. The speaker, sold in kit form only, is finished in Brazilian rosewood veneer and costs \$569.95 per pair.

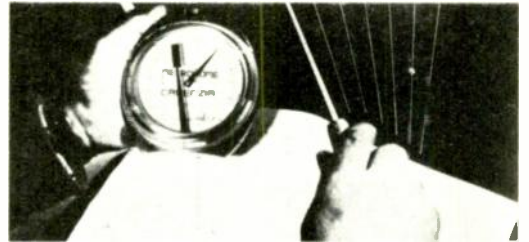
CIRCLE 144 ON PAGE 89



Cadenzia's metronome for your pocket

If you tire of carrying around that pyramidal wooden metronome, you can replace Maelzel's version with one shaped like a pocket watch. The Cadenzia offers a visual as well as an audible beat, with a range of 40 to 200 per minute. The Swiss-made movement is housed in a shock-resistant silver-finish case. The price is about \$80.

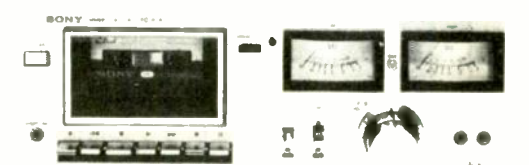
CIRCLE 146 ON PAGE 89



A budget deck from Sony

Sony's TC-K1A Dolby cassette deck, a front-loader with servo-control motor, features a one-button recording system, automatic shutoff, and automatic repeat. Averaging meters and a three-position tape selector switch are also provided. Frequency response is rated at ± 3 dB, 50 Hz to 13 kHz, and wow and flutter at 0.08%. The price of the TC-K1A is \$180.

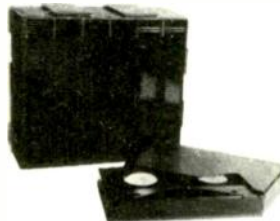
CIRCLE 140 ON PAGE 89



Royal Sound's Add-N-Stack for video tape

Joining Royal Sound's line of storage boxes are two module designs to accommodate, respectively, VHS and Beta video cassettes. Each module holds six cassettes (including their outer boxes, in the brands we have tried) and interlocks with the others so that the storage system can grow as the collection does. Available in six colors, the modules can be stacked or mounted on a wall and cost \$7.00 apiece in either format.

CIRCLE 145 ON PAGE 89



Roland Corp's stroboscopic instrument tuner

Marketed in the Boss line of accessories, the TU-120, a 12-note tuning device, features a built-in microphone for checking acoustic instruments, as well as a line input jack for testing electric ones. Standard pitch is switchable from 440 to 444 Hz, and an LED display indicates degree of departure from selected pitches. The Boss TU-120 can be powered by AC or battery and sells for \$199.50.

CIRCLE 151 ON PAGE 89

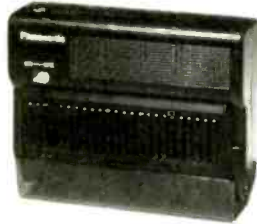




Familiar design, new twists from BTM

At the top of BTM Manufacturing's line of ElectroStatic-Translator speakers is the Model 320. In contrast to traditional design, the electrostatic driver uses a fixed bias plate between two movable diaphragms, both handling the input signal. Excursion is doubled, according to BTM, and high sound pressure levels therefore can be achieved with low power. BTM uses new design principles in the crossover/energizer network as well. The Model 320 costs \$499. Other models in the line range in price from \$139 to \$349.

CIRCLE 142 ON PAGE 89



Panasonic record duster

The BH-651E battery-operated record cleaner from Panasonic uses a rotary brush to collect dust from a record surface. The particles are then deposited in a built-in dust box. The brush's fine polyvinyl chloride bristles are said to create no static or record wear while performing this function. The BH-651E is priced at \$16.95.

CIRCLE 147 ON PAGE 89



Cassettes replace piano rolls

Superscope is marketing the long-awaited Pianocorder, an electro-mechanical cassette system that plays back prerecorded performances on your own piano. A cassette player is attached to an array of solenoids that control keyboard action and "play" tapes from the manufacturer (many derived from historic piano rolls) or original tapes made by the operator/pianist. A Pianocorder can be added to your present piano or ordered built into a new one. The system sells for \$3,995.

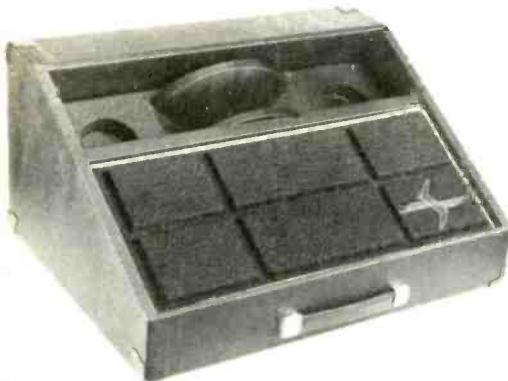
CIRCLE 152 ON PAGE 89



Robins on the level

Robins Industries has introduced its Dual Spirit Turntable Level, designed to aid in adjusting turntables for proper azimuth and zenith leveling. The T-shaped device contains a pair of oversized levels to show orientation simultaneously along two axes 90 degrees apart. The Level (catalog No. 41-133) is priced at \$4.25.

CIRCLE 143 ON PAGE 89



Adjustable dispersion in Shure stage monitor

Removable "acoustic wedges," plus two basic tilt angles, enable the Shure Model 703 monitor speaker to aim its output for best effect. The wedges deliver either 60 or 120 degrees of high-frequency dispersion, according to the manufacturer. The frequency response is tailored to emphasize the midrange, helping both intelligibility and naturalness of the output in sonically "busy" on-stage ambiances. The Model 703 is a two-way 8-ohm system; power-handling capacity is rated at 100 watts (20 dBW). The price is \$370.

CIRCLE 149 ON PAGE 89

A NEW PREAMP FOR THAT DISCERNING PERFECTIONIST WHO CAN APPRECIATE THE DIFFERENCE.

The new Phase 3000 Series Two was designed for that discerning music-lover who has a passion for accurate sound, an eye for elegant yet functional design, a feel for craftsmanship, and an unflinching determination to maximize return on investment.

The Phase 3000 incorporates the latest technological advancements in preamp design. Transient overloading that plagues preamps has been virtually eliminated, whether amplitude, frequency, or slew induced. Now you can enjoy the flexibility, performance and features that are priced substantially higher in other equipment.

CMOS LOGIC MEMORY SYSTEM

Most preamps use dated mechanical switching devices that force signals to travel long, noisy, circuitous routes from the inputs, to the front panel, then

back to the outputs. *Ours doesn't.* The Phase 3000 uses CMOS-digital logic to energize switching relays located where they belong, at the input jacks. This shortens critical signal paths. Noise, hum, and the "crosstalk" that's characteristic of mechanical switching is virtually eliminated.

WANT MORE?

A listening session with a pair of headphones will convince you just how much of a difference a true headphone amp makes. Turn the 3000 around, and see how easy it is to catch in your noise reduction unit.

Two complete tapping circuits allow you to copy between decks while listening to another source.

But we've done enough talking. If you're serious about state-of-the-

art performance it's time for you to do some listening. See your Phase dealer.

SPECIFICATIONS:

Distortion: less than 0.04% (20Hz-20kHz).

Typically 0.005% @ 1kHz.

Signal/Noise (IHF "A"):

Phono 1—Moving Magnet: greater than 90dB re: 10mV input

Phono 2—Moving Coil: greater than 78dB re: 1mV input

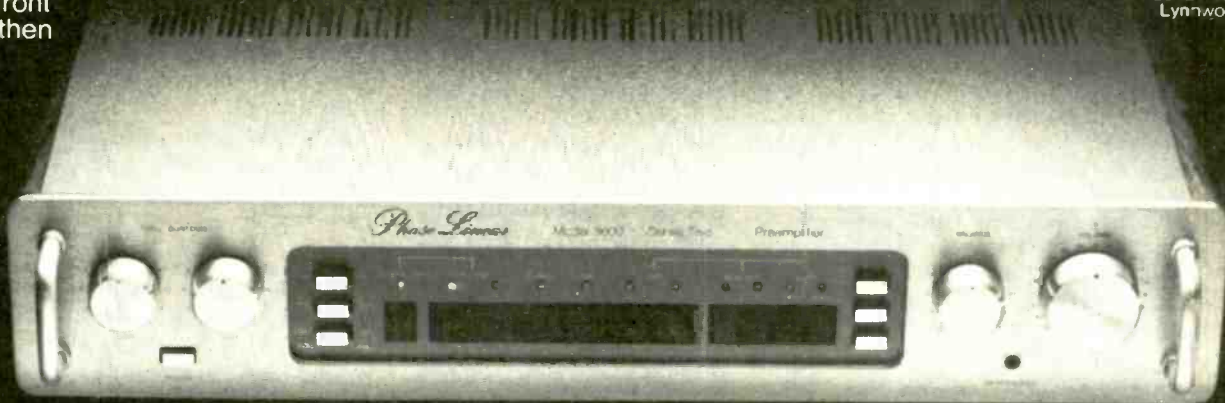
Frequency Response: Phono-1/
Phono-2 deviation: ± 0.3 dB

Tone Controls: High & Low Frequency controls with switchable turnover points.

Volume Control: 22-position precision attenuator with plus or minus 0.5dB tracking.

Low Filter: 18dB/octave below 15Hz.

Phase Linear Corporation
20121 48th Avenue West
Lynnwood, Washington
98036



PHONO CARTRIDGE FLEXIBILITY

The two independent RIAA Phono Stages eliminate all low-level switching. As a result, noise is reduced to theoretical limits.

Phono 1 is designed for moving-magnet cartridges and has three selectable capacitance values.

Phono 2 is used with moving-coil cartridges and has three selectable resistance values. The expensive outboard head amp usually required for a moving-coil cartridge is a ready built into the 3000.



Phase Linear
THE POWERFUL DIFFERENCE

MADE IN USA. DISTRIBUTED IN CANADA BY H. ROY GRAY LTD. AND IN AUSTRALIA BY MEGASOUND PTY. LTD.

Digital discs roll on. The long-awaited Magnavox/Philips/MCA video disc should be in the stores by the time this issue appears. It has been something of an uphill struggle, with questions of possible competition from other disc systems, the eleventh-hour switch from a single-sided format to the present half-hour-per-side double-faced version, and so on. But helping the "laser" disc (so called because a laser is used to play back the signal "pits" in the disc surface) has been the thrust by a number of companies—including Teac and Mitsubishi—toward using the same recording/playback scheme as the basis of an all-digital audio disc system.

Last fall JVC jumped into the lists with both feet—audio and video—by announcing its own system, called VHD/



AHD (for Video High Density and Audio High Density, respectively). Like the Magnavox system, it uses a laser "cutter" to create pits on a disc master from which pressings are made; unlike the Magnavox, but like RCA's SelectaVision disc, it substitutes a relatively simple and inexpensive capacitive pickup for the laser reading system. The double-faced discs hold one hour per side with either video or audio, the latter using a 14-bit (plus error correction) pulse-code modulation system.

JVC says it has no present plans to market VHD/AHD. It is using its prototypes to show what the approach will do and hoping that other manufacturers will adopt it, the question of standardization and interchangeability having proved crucial to so many recording formats over the years. Like other video recording systems, incidentally, JVC's does allow for dual soundtracks—the age of stereo sound that we are so frequently told is just over the video horizon. (Or should we say, perhaps, rainbow?)

RCA's SelectaVision disc is very much back off the shelf after a relatively quiescent period. Last fall a revamped player was shown to movie-industry insiders, who are reported to have been impressed. The \$400 projected price is still being bandied about; presumably mechanical simplification

Video Topics

of the player has offset inflation since the figure was originally suggested. Commercial introduction has not been scheduled, however.

In the background of all this stands the shadowy figure of IBM, which is said to be working on a system appropriate for video or digitalized recording. Presumably data storage is a major objective of the development project; how real its rumored consumer applications may be, IBM isn't saying.

In the lab. For a lot of years we have been hearing about flat-screen (or, in Sharp's more exact term, thin-screen) picture devices as alternatives to the bulky cathode-ray tubes on which most of us watch our video images. The flat-screen revolution—like the video tape revolution—was supposed to be just around the corner. Tape has turned it; the flat screen may do so soon, but don't hold your breath—the interesting work that continues to be done in r&d labs around the world notwithstanding.

Sharp has demonstrated in prototype an electroluminescent panel only two inches thick that is capable of reproduc-



ing black-and-white images. The demonstration drew a great deal of attention, though it does not yet represent a marketable product.

Sanyo is pursuing the same objective with a light-emitting diode system that, like Sharp's, is monochromatic in its prototypical form. First application of the system, we're told, will be in readouts—alphanumeric displays and that sort of thing—but a true TV screen is hoped for in two to three years.

By then, Philips may have a flat

screen that displays a *three-dimensional* picture in full color, thus upstaging any even semi-working system we've heard of. Laboratories in Holland and West Germany are said to be at work on the device, which currently produces pictures but apparently meets neither the quality standards nor the cost goals set by the company. Still, they're talking about 1981 as an introduction date.

More for the road. A few issues back, we mentioned that JVC was readying a portable model in its Vidstar line of VHS video cassette recorders. Matsushita (Panasonic) also has been at work on a model. A portable Betamax deck, first



shown to Sony dealers last May, appears to be selling at prices only a little higher than those of home decks—a pattern that seems to apply to the VHS decks as well.

Meanwhile, the inherently much more portable LVR system has been scheduled for introduction by BASF here next fall.

Energy savers. Matsushita has developed a single-gun color tube that, it says, should reduce its appetite for house current by about 40%. It dispenses with the usual shadow mask, which allows only one electron beam at a time from the three guns of conventional tubes to reach the screen's phosphors and so "wastes" the other two. At first the new tube will be used for small Panasonic battery-portable sets (which most obviously profit from the power saving in terms of reduced battery weight and/or increased battery life), but eventually larger tubes are expected to extend the savings into the living room.

Hitachi has developed a picture tube that is said to deliver an image within one second of turnon, but without requiring a continuous current drain during "off" periods to keep the heater warm and ready to go. That hat trick was pulled off, says Hitachi, by combining heater and cathode into a single alloy element that warms very rapidly but requires less current to do so than conventional elements.

QUALITY IN REVERSE

AKAI introduces automatic reverse record at popular prices.

Now instead of interrupting great moments in music when it's time to flip the cassette, AKAI's two newest decks automatically reverse the tape and continue to record or play back.

In addition, the deluxe GXC-735D is loaded with all the features that make the difference between a good deck and a great one. Things like AKAI's exclusive GX (glass and crystal ferrite) heads, guaranteed for 150,000 hours — the equivalent of playing 24 hours a day for 17½ years. As well as feather-touch controls, Dolby,* memory rewind, quick reverse and dramati-

cally recessed red/green illuminated VU meters. Not to mention the kind of specs serious component buyers all over the world depend on AKAI to deliver. (For the more economy-minded, there's the CS-732D. Same great auto reverse record/playback feature, with Dolby, quick reverse and tape selector — a lot of AKAI quality for not a lot of money.)

Hear them both at your AKAI dealer or write AKAI America, Ltd., 2139 E. Del Amo Blvd., P.O. Box 6010, Compton, CA 90224. And see how they can reverse your thinking about automatic recording.

GXC-735D: Wow/Flutter — less than 0.08% WRMS; S/N Ratio — better than 58 dB, weighted, at FeCr position, with peak level at 3% THD. Dolby on improves up to 10 dB above 5 kHz. Frequency response — 35-17,000 Hz (± 3 dB) using FeCr tape.

CS-732D: Wow/Flutter — less than 0.08% WRMS; S/N Ratio — better than 57 dB, weighted, at FeCr position, with peak level at 3% THD. Dolby on improves up to 10 dB above 5 kHz. Frequency response — 38-16,000 Hz (± 3 dB) using FeCr tape.

AKAI

You never heard it so good.



*TM. Dolby Labs, Inc.

GLASS & X'TAL FERRITE HEAD



INTRODUCING THE EMPIRE EDR.9 PHONO CARTRIDGE. IT SOUNDS AS GOOD ON A RECORD AS IT DOES ON PAPER.

It was inevitable . . .

With all the rapid developments being made in today's high fidelity technology, the tremendous advance in audible performance in Empire's new EDR.9 phono cartridge was bound to happen. And bound to come from Empire, as we have been designing and manufacturing the finest phono cartridges for over 18 years.

Until now, all phono cartridges were designed in the lab to achieve certain engineering characteristics and requirements. These lab characteristics and requirements took priority over actual listening tests because it was considered more important that the cartridges "measure right" or "test right"—so almost everyone was satisfied.

Empire's EDR.9 (for Extended Dynamic Response) has broken with this tradition, and is the first phono cartridge that not only meets the highest technological and design specifications, but also our

demanding listening tests—on an equal basis. In effect, it bridges the gap between the ideal blueprint and the actual sound.

The EDR.9 utilizes an L. A. C. (Large Area Contact) 0.9 stylus based upon—and named after—E. I. A. Standard RS-238B. This new design, resulting in a smaller radius and larger contact area, has a pressure index of 0.9, an improvement of almost six times the typical elliptical stylus and four times over the newest designs recently introduced by several other cartridge manufacturers. The result is that less pressure is applied to the vulnerable record groove, at the same time extending the bandwidth—including the important overtones and harmonic details.

In addition, Empire's exclusive, patented 3-Element Double Damped stylus assembly acts as an equalizer. This eliminates the high "Q" mechanical resonances typical of other stylus assemblies, producing a flatter response, and lessening wear and tear on the record groove.

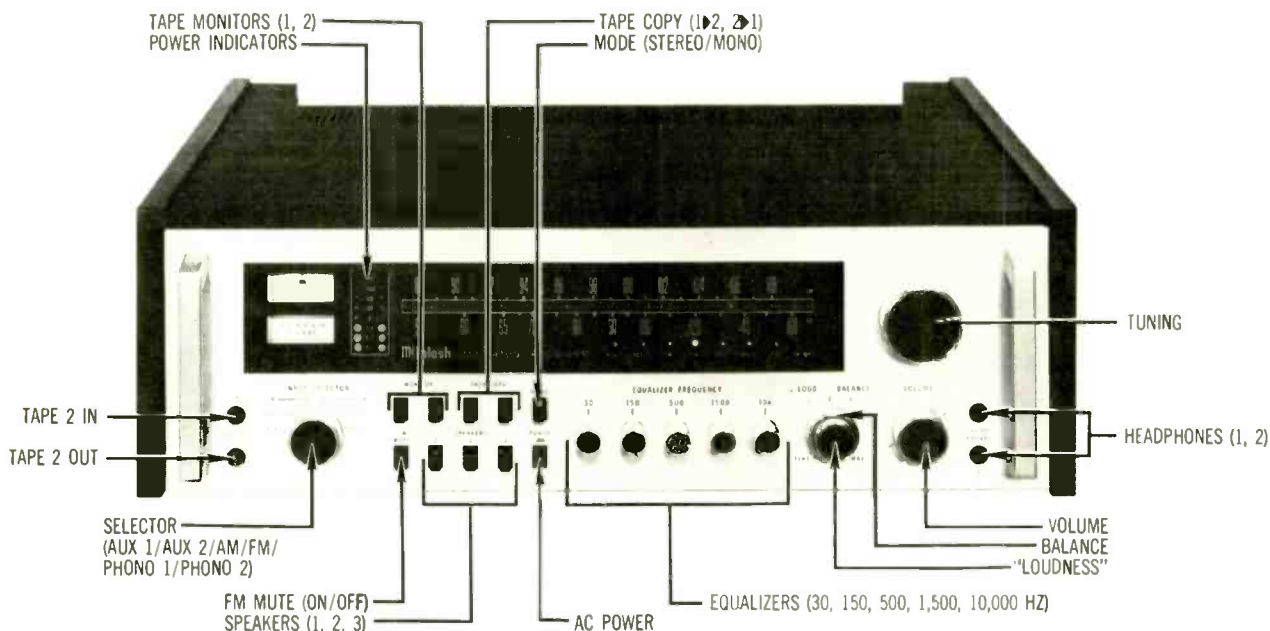
We could go into more technical detail, describing pole rods that are laminated, rather than just one piece, so as to reduce losses in the magnetic structure, resulting in flatter high frequency response with less distortion. Or how the EDR.9 weighs one gram less than previous Empire phono cartridges, making it a perfect match for today's advanced low mass tonearms.

But more important, as the EDR.9 cartridge represents a new approach to cartridge design, we ask that you consider it in a slightly different way as well. Send for our free technical brochure on the EDR.9, and then visit your audio dealer and listen. Don't go by specs alone.

That's because the new Empire EDR.9 is the first phono cartridge that not only meets the highest technological and design specifications—but also our demanding listening tests.

Empire Scientific Corp.
Garden City, N.Y. 11530

EMPIRE



McIntosh's New Receiver: Breeding Tells

Mac 4100 stereo FM/AM receiver, in case with simulated wood-grain finish. Dimensions: 18 $\frac{3}{8}$ by 5 $\frac{3}{4}$ inches (front), 14 inches deep plus clearance for controls and connections. AC convenience outlets: 2 switched plus 1 unswitched (600 watts total), 2 for auto-on turntable switching (100 watts total). Price: \$1,499; optional RMA-5 rack-mounting adapter, \$29. Warranty: three-year service contract, free with purchase of the receiver, has provisions comparable to typical "limited" warranties but covers normal wear and tear. Manufacturer: McIntosh Laboratory, Inc., 2 Chambers St., Binghamton, N.Y. 13903.

McIntosh has for some years kept a very low profile vis-à-vis the press. This hiatus in communications has fostered a polarization of opinion about McIntosh: Is the company still deserving of its reputation for superb engineering, or is it trading on past glories? One review can't provide a definitive answer, of course, but the Mac 4100 receiver can be taken as a positive sign of health in Binghamton.

The personality of this receiver is like that of an accomplished servant used to coping with pampered aristocrats who

demand the finest but are not always technically knowledgeable or manually dexterous. Accordingly, it takes responsibility in a manner that, paradoxically enough, is unassuming yet quite intolerant of intervention by its master. But once it has taken over, it performs virtually impeccably and can even ward off the consequences of ineptitude without noticeable fuss.

REPORT POLICY Equipment reports are based on laboratory measurements and controlled listening tests. Unless otherwise noted, test data and measurements are obtained by CBS Technology Center, Stamford, Connecticut, a division of Columbia Broadcasting System, Inc., one of the nation's leading research organizations. The choice of equipment to be tested rests with the editors of HIGH FIDELITY. Samples normally are supplied on loan from the manufacturer. Manufacturers are not permitted to read reports in advance of publication, and no report, or portion thereof, may be reproduced for any purpose or in any form without written permission of the publisher. All reports should be construed as applying to the specific samples tested; neither HIGH FIDELITY nor CBS Technology Center assumes responsibility for product performance or quality.

Very little of the receiver's special quality is immediately apparent from the outside, though in hooking it up you get a clue from the convenience outlets. In addition to the conventional switched (black) and unswitched (red) ones, there are two green ones marked **TURNABLE**, plus an **AUTO/MANUAL** switch. If you use the **AUTO** setting and a turntable plugged into one of the green sockets is turned on, the receiver and any outboarded equipment run off the switched outlets will come on automatically, even when the receiver's power switch is off, and all will turn off again when the turntable shuts down. Thus an automatic model can be made to turn off the whole system unattended. Since the feature works by sensing current drain through the turntable outlets, the switch serves to override it should the turntable be one of those that draw some current even when they are off.

The receiver's switching is handled by DC control voltages, actuated by the front-panel controls and fed to FETs that actually do the signal switching. There are two fundamental advantages to this approach: Switching transients are eliminated, and the short, direct signal paths made possible minimize noise pickup, RFI, and crosstalk. In all of these re-

spects the 4100 is above reproach. We seldom have RFI problems in our area, but we do often find that, for example, some audio from an FM tuner section will "leak" into the tape-monitor signals; none was detectable in the Mac.

The FM section is unusual in that—in addition to conventional automatic stereo/mono switching—it has an automatic-blend feature that progressively reduces stereo separation (and hence out-of-phase noise) as signal strength drops. Since the full audio band is blended, the resulting stereo image may be a bit stabler than in the more usual high-blend solution, but the hiss seems a little more intrusive for a given degree of separation loss. On weak signals it does work, however—and, like so many features of the Mac, without drawing undue attention to itself. Similarly, the Automatic Frequency Lock gently holds onto an FM station that has been tuned correctly; were it not for the front-panel AFL LED, which lights when lock occurs, you would be unaware of its action. This LED acts as a tuning aid; when the muting is on, the LED announces arrival at a receivable station before the unmuting action (which is gentle and slightly delayed) allows any audio to pass. The

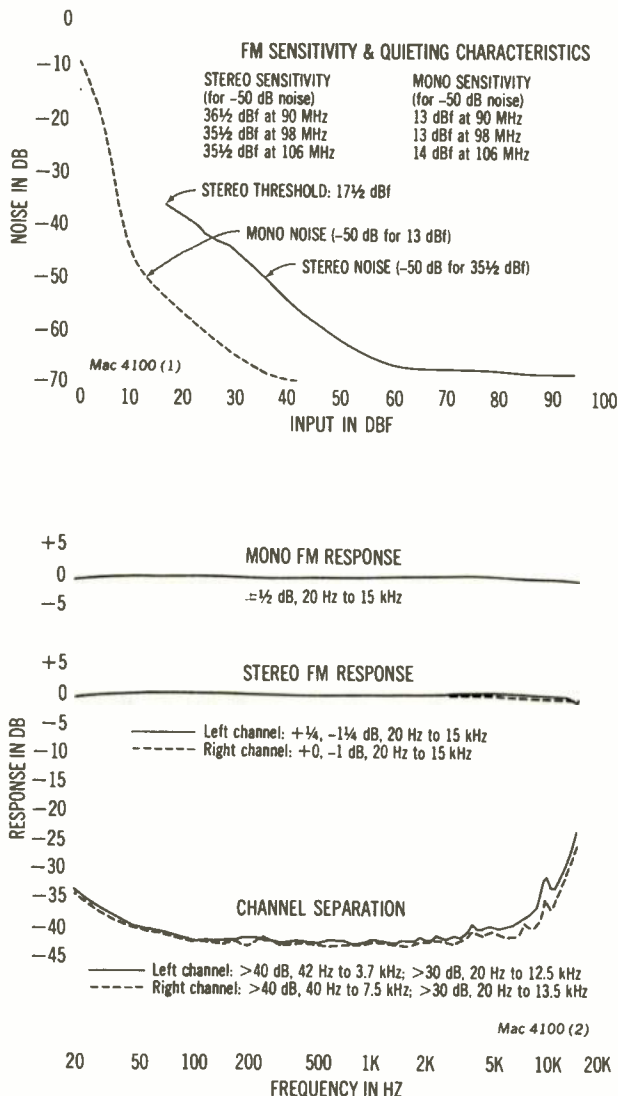
McIntosh Mac 4100 Receiver

Tuner Section

Capture ratio	2 dB		
Alternate channel selectivity	76 dB		
THD + N	L ch	R ch	mono
80 Hz	0.25%	0.25%	0.16%
1 kHz	0.17%	0.22%	0.15%
10 kHz	1.8%	1.7%	0.21%
IM distortion	0.06%		
19-kHz pilot	-63½ dB		
38-kHz subcarrier	-66½ dB		
S/N ratio (at 65 dBf)			
stereo	67 dB		
mono	71 dB		

Amplifier Section

Manufacturer's rated power	17½ dBW (75 watts)/ch.	
Power output at clipping (channels driven simultaneously)		
L ch	20 dBW (98 watts)	
R ch	20 dBW (98 watts)	
Dynamic headroom (at 1 kHz)	1½ dB	
Frequency response	+ ½, -¼ dB, 20 Hz to 20 kHz + ½, -3 dB, 13 Hz to 35 kHz	
RIAA equalization	± 1 dB, 20 Hz to 20 kHz	
Input characteristics (re 0 dBW (1 watt); noise A-weighted)		
	Sensitivity	S/N ratio
phono 1, 2	0.27 mV	76½ dB
aux 1, 2	30.0 mV	80 dB
tape 1, 2	30.0 mV	80 dB
Phono overload (clipping point)	88 mV at 1 kHz	
Damping factor at 50 Hz	100	



range of the signal-strength meter is well chosen as an aid in antenna orientation for best reception of problem stations.

The amplifier section, too, exemplifies the extra care that sets the receiver apart. Whether the option that enables switching in three speaker pairs simultaneously requires them or not, it has three distinct protection systems. The most conventional is triggered by a heat sensor and shuts down the output until the heat sink has cooled to within safe operating limits. The Sentry Monitor circuit reacts to abnormal current conditions by restricting the drive to the output transistors. And the Power Guard circuit responds to overdrive that normally would create hard clipping by shaving off the potentially dangerous harmonics—"softening" the clipping, so to speak. None impinges on normal operation; all minimize the effects—aural, thermal, or electrical—of abnormal operation.

The Power Guard, for example, limits peaks so smoothly that you are unlikely ever to hear this receiver overload, as such. The top LEDs in the front-panel power display—the one possible concession to fashion in the design—are Power Guard pilots; below that, the display is calibrated from 100 watts down to 0.1 watt in 5-dB steps. As we've said before, we're not convinced of the utility of such indicators, but the calibration points do seem relatively well chosen.

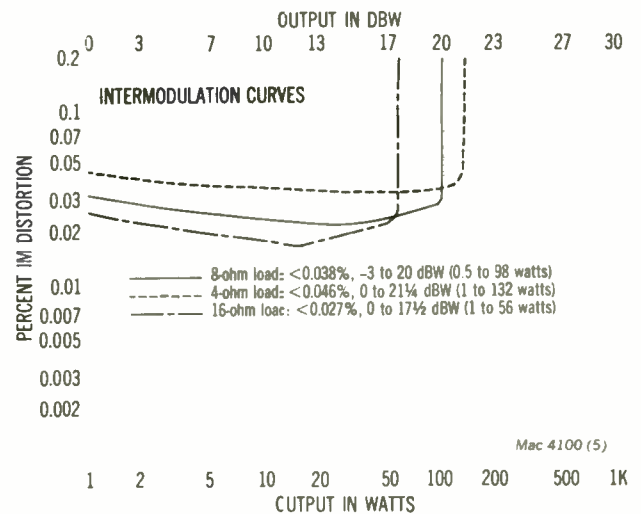
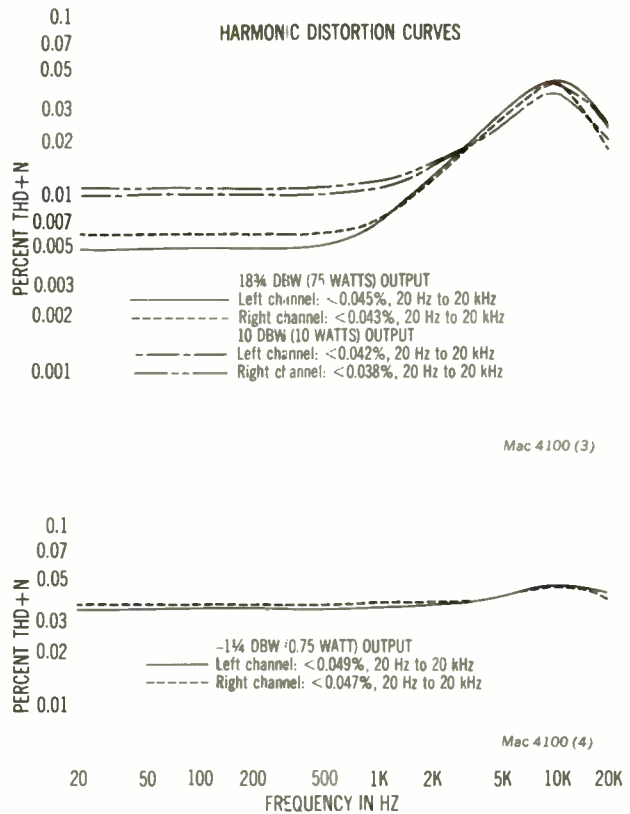
Two unusual features of the front panel are the equalizer/tone controls and the "loudness" knob. The latter might better be marked "contour" since it does not adjust midband level like most loudness controls, but simply adds boost in the deep bass plus some in the upper treble to compensate for low listening levels. Like other separate-knob schemes, this frees the loudness compensation from the volume control and makes it adjustable to the actual listening levels through the system; unlike some, the appropriate setting must be determined by ear alone—which is arguably the most reasonable approach.

The equalizer's five bands have maximum ranges of approximately ± 13 dB and are marked for center frequencies of 30, 150, 500, 1,500, and 10,000 Hz—making them, respectively, controls for subbass, bass, midrange, treble, and sparkle. The 30-Hz control is most effective as a rumble-filter/boom-boost control; the top one might be used as a hiss filter, though its maximum-cut setting dulls the upper treble a good deal. As an ensemble, they offer genuinely useful flexibility; all have detented center "flat" positions.

While the lab measurements give little clue to the "extras" from which the receiver's special qualities derive, they document its very solid performance. McIntosh appears to be thinking in terms of listening quality rather than specsmanship (an attitude we applaud), so distortion, for example, is only vanishingly low—not infinitesimally low. The frequency response has been intentionally cut off beyond the audio band to help maintain clean sound by inhibiting intermodulation with infrasonic and ultrasonic "garbage" (a design criterion that applies to the tuner section as well as the amplifier); though this, similarly, may dismay those who judge an amplifier by its square waves, the results with music seem all the better for it. Tuner data are likewise very good—even superb—with no offsetting cause for complaint of any kind.

It is obvious, too, that McIntosh has a clearly formed idea of the sort of user it is designing for: someone who, while he is uninterested in playing the "pro," cares very much about quality and craftsmanship. The cosmetics, the "feel," and the sound quality of the Mac 4100 are all superb; the controls are minimal for the degree of useful flexibility they provide, with little if any concession to users who simply like to putter. This tuner is a receiver for music lovers.

CIRCLE 136 ON PAGE 89



NEW MEASUREMENT STANDARDS

In making comparisons between current reports and those published in the past, readers are cautioned to pay particular attention to the reference levels and similar test criteria cited. S/N ratios for electronics, in particular, are measured very differently now that we have adopted salient features of the new I-F amplifier-measurement standard. While we believe that the new technique—which also implies a saner approach to loading of all inputs and outputs) will result in measurements that more perfectly reflect audible in-use effects, they cannot be compared directly to the numbers resulting from the former, more conventional lab measurements.



When Inertia Is a Plus

Denon DP-2500 two-speed (33 and 45 rpm) direct-drive single-play manual turntable ensemble with base and dust cover. Dimensions: 19 by 15 inches (top plate), 7½ inches high with cover closed; 17½ inches additional vertical clearance, 2¾ inches at rear, with cover fully open; approx. 2½-foot nondetachable signal cables. Price: \$525. Warranty: "limited," four years parts and labor. Manufacturer: Nippon Columbia Co., Ltd., Japan; U.S. distributor: American Audioport, 1407 N. Providence Rd., Columbia, Mo. 64201.

Hefting the packing crate in which a Denon DP-2500 arrives is the first hint that something unusual is afoot. Tipping the scales at nearly 28 pounds, this model surely belongs in the heavyweight class. Far from being there just to impress or as a brute-force effort to secure some isolation from external shock, the avoirdupois of the Denon seems to be an ingredient of a highly sophisticated isolation system. The system is so good, in fact, that when we inadvertently operated the turntable with its transit screws still in place, we got results that we could not complain about. And with the screws removed (the power transformer is thereby decoupled from the main chassis), the isolation is superb—barely acknowledging hard footfalls on the floor nearby, for example. And acoustic feedback is out of the question, even at heroic listening levels.

This level of behavior is probably to be expected from a component that is so single-mindedly performance-oriented—one that is expensive yet utterly devoid of frills, conveniences, and automatic features. You start and stop the

platter with a manual switch, and set the tone arm in the first groove and retrieve it from the last by hand as well. Thus, the Denon's blandishments are all technical: the quartz-controlled servo-AC direct drive, the proprietary DC platter-braking system, the damped tone arm, the antivibration platter mat said to have been designed with the aid of laser vibration analysis, and so on.

Laboratory tests confirm the unvarying speed: at both 33 and 45 rpm, and despite extremes of power-line voltage, as exact as can be measured. (No intentional speed alteration is possible.) Flutter and rumble are minimal. The motor provides enough torque to allow use of a record-cleaning brush during actual play with no alteration in speed. This same torque also provides very quick startup—including virtually instantaneous transition from 33 to 45 rpm, with the opposite transition nearly as rapid.

The DP-2500's tone arm measures 10 inches from pivot to stylus tip, promising reduced tracking error by comparison with 9-inch arms but, at the same time, increasing the mass. While the arm resonates right in the warp region (6.5 Hz for vertical motion), the damping confines the rise to a barely detectable level. Moreover, the unit proved itself by successfully tracking a severely warped disc that we save for such tests.

Accuracy of the stylus-force gauge is measurably perfect up to a setting of 2 grams. At one full turn of the counterweight, which seems to represent 2.5 grams, only a small error is detectable; higher settings can be dialed in by continuing into a second revolution. The counterweight, incidentally, is massive enough to balance moving-coil and other heavy pickups. Antiskating compensation, though not particularly linear, falls within the normal range, and cueing is above reproach.

Put to work in our system, the Denon performed flawlessly. Its effect, naturally enough, is elusive, but it gives our phono cartridges as stable a working environment as we have ever encountered and lets them work without gratuitous obstacles—and we cannot recall a turntable that let them do it better. Operating controls are located under the dust cover, but the smoothness of its hinge action and the imperturbability of the suspension make it easy to close the cover with the turntable in operation. The unit's weakest point is its bilingual (French and English) instruction manual, which must be deciphered with some care.

The DP-2500 surely is a winner. Its superb performance is clearly addressed to the purist who can afford as well as appreciate it and won't mind the lack of convenience features. If you fit this description, a trip to your Denon dealer may give great satisfaction.

Denon DP-2500 Turntable

Speed accuracy no measurable error at either speed at 105, 120, or 127 VAC

Weighted peak flutter (ANSI/IEEC)

average 0.04%
maximum 0.07%

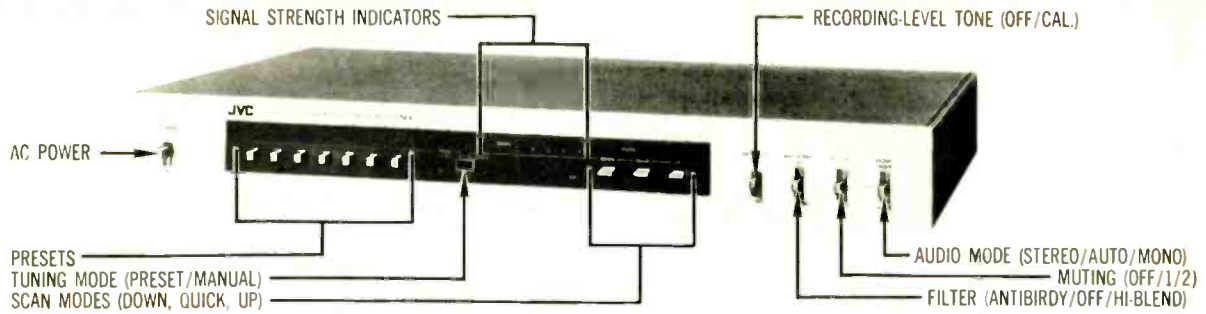
Audible rumble (ARLL) -65 dB

Stylus force gauge accuracy
calibrations to 2.0 grams no measurable error
full counterweight revolution 2.45 grams

Tone-arm resonance
vertical 6.5 Hz; 1-dB rise
lateral 5.0 Hz; 1-dB rise

Tone-arm friction negligible

CIRCLE 134 ON PAGE 89



Superior Tuning in a Slim Package

JVC T-3030 stereo FM tuner in metal case. Dimensions: 16½ by 2¼ inches (front panel), 13 inches deep plus clearance for controls and connections. Price: \$649.95. Warranty: "limited," two years parts and labor. Manufacturer: Victor Co., Japan; U.S. distributor: JVC America, Inc., 58-75 Queens Midtown Expressway, Maspeth, N.Y. 11378.

Judging a book by its cover is said to be ill advised. Certainly the diminutive size of the JVC T-3030 FM tuner belies the circuit complexity that lies within. And, though it's not necessarily true of look-alikes, the four-digit LED frequency readout does imply a form of crystal-controlled tuning. The oscillator frequency of the tuner is synthesized by comparing it with a quartz-controlled reference circuit; accuracy and stability are therefore determined solely by the rock-stable crystal. Accordingly, there is no need for the common channel center meter, which has been omitted.

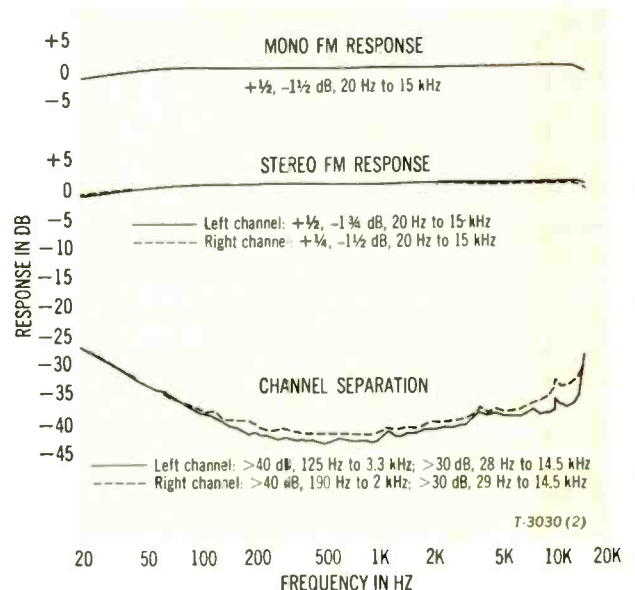
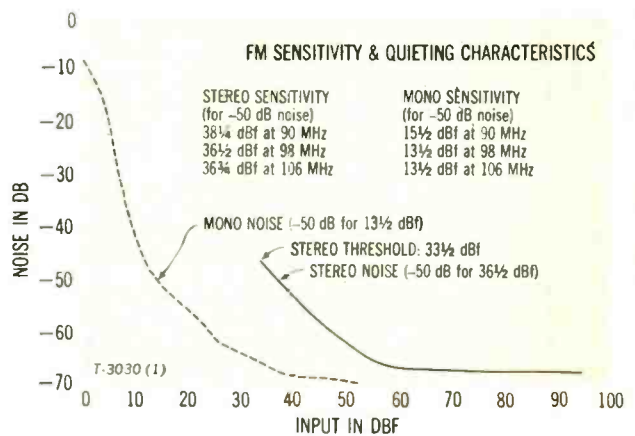
You tune the T-3030 by pressing one of the two buttons that cause it to scan (upward or downward) through the band in 0.1-MHz increments. In the slow-scan mode, it moves about 1 MHz in 4¼ seconds—it requires about 1 minute 22 seconds to sweep the entire FM band. When you press QUICK simultaneously, the rate increases, and the tuner slews from 88 to 108 MHz in less than 13 seconds.

During tuning, the output of the T-3030 is squelched, but the five-LED signal-strength display and the stereo indicator alert you to the presence of a station. Since the first LED will not illuminate at signal strengths below 27 dBf, however, many stations that would afford excellent reception (at least 62-dB quieting) in mono slip by unnoticed. To "find" them, you either must know their precise frequency and tune manually or scan the band very slowly, stopping at each possible station and waiting for the tuner to come out of squelch. We find conventional rotary mechanisms more convenient for the purpose. Had JVC chosen 0.2-MHz steps—the closest station spacing allowed by the FCC—the process could have taken only half as long; furthermore, such a design would avoid confusion between stations' quasi-frequency nicknames ("Stereo 101," etc.) and their true tuning (100.9 or 101.1 MHz—or even farther from the nominal).

Seven preset buttons are provided; a single-digit LED display indicates which of the seven has been selected. Presetting your favorite seven stations for the first time is a rather complex procedure but one that is readily accomplished if you follow the manual's instructions precisely. The T-3030 stores the frequencies in a memory, maintaining the settings even when the tuner is switched off and—as with a conventionally tuned receiver—returning at switch-on to the station it was receiving when it was turned off. A battery (with a claimed life of

one year) prevents "amnesia" during power failures. Provided that the battery is changed before it is completely discharged, the batteryless memory will coast for 10 minutes or so and hold your commands during the replacement.

The availability of seven presets is a bit misleading. If you wish to listen to only seven stations, they can be locked in; but



JVC T-3030 Stereo FM Tuner

Capture ratio	1½ dB			
Alternate-channel selectivity	83½ dB			
S/N ratio (at 65 dBf)	stereo	67½ dB		
	mono	72½ dB		
THD + N	L ch	R ch	Mono	
	80 Hz	0.18%	0.19%	0.085%
	1 kHz	0.17%	0.17%	0.095%
	10 kHz	0.34%	0.34%	0.16%
IM distortion	0.065%			
19-kHz pilot	-65½ dB			
38-kHz subcarrier	-67½ dB			

should you wish to tune manually, the frequency stored in the last preset used will be lost when you do. An example may clarify. Assume you have preset seven stations and have selected Preset 4. You now wish to scan the band. You move the SELECT/MANUAL switch to MANUAL and press one of the scanning buttons. When you do, Preset 4 will be readjusted to the manually tuned frequencies. To return it to its previous setting, you must remember what it was and feed it back into the memory after your manual tuning. The only purpose we find for the SELECT/MANUAL switch is to prevent manual tuning (and hence the loss of presets) in the SELECT mode.

In addition to a fixed-level output pair, the T-3030 affords control of the output level from a second pair of back-panel jacks, which are handy for matching the tuner to the levels fed to the system's preamp by other equipment. A detector output jack provides for discrete FM quadriphony should such a

system become a reality. Strangely, the only antenna input is for 75-ohm coaxial; if you use a 300-ohm lead-in, you will need a balun to match the T-3030.

You have a choice of two muting levels (plus off). Even in the more sensitive position, however, the tuner rejects a large number of stations that would provide excellent mono reception, so we frequently find ourselves forgoing the muting—especially when scanning. A calibration signal equivalent to a 50% modulation level aids in preadjusting tape-recorder levels, and the high-blend/"antibirdy" switch helps with less-than-perfect reception conditions.

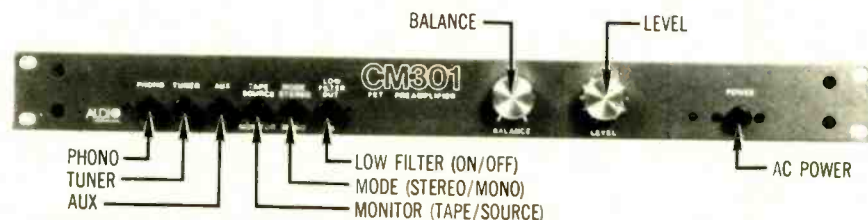
A high level of performance is reflected in the laboratory data. The differences in sensitivity across the band suggest some mistracking in the electronic-tuning mechanism, but midband sensitivity is very good and the low end is only about 2 dB less sensitive. The distortion is low—especially in mono—and the capture ratio and alternate-channel selectivity are very good. Frequency response and separation are what we expect from a top-of-the-line tuner.

And the lab data correlate well with our listening tests. The apparent selectivity is excellent: We find no problem separating stations well on alternate and, in most cases, even adjacent channels. With signals of reasonable strength, the sound is extraordinarily clean, and the stereo reception of strong stations is excellent. We suspect that this reflects the T-3030's ability to tune to the station with greater precision than we could do ourselves. We would prefer a conventional meter to the five-LED signal-strength display, which we find less than adequate as an antenna-orienting aid. For that matter, some means of indicating multipath would also be helpful.

Certainly the JVC here demonstrates the level of technical excellence that can be achieved in a synthesized tuner. Station selection is notably accurate, and—while manual tuning is not so convenient as with conventional techniques—the choice of presets assures you that your favorite stations can be tuned quickly as well as precisely.

CIRCLE 133 ON PAGE 89

A "Less Is More" Preamp



Audio International CM-301 stereo preamplifier in rack-mount metal case. Dimensions: 19 by 1¾ inches (front panel), 6½ inches deep plus clearance for controls and connections. Price: \$279 in black-finish; optional bronze-finish faceplate available for \$15. Warranty: "limited," three years parts and labor. Manufacturer: Audio International, 3 Cole Place, Danbury, Conn. 06810.

If "control preamplifier" is accepted as the description for this genus of product, the CM-301's species might be called "minimum-control preamplifier." Basically, the CM-301 includes a phono preamplifier/equalizer, a means of choosing among its four inputs, and adjustments for volume and channel balance. The only deference given to tonal modification is the low-cut filter. The rationale behind least-is-best designs is that

each stage through which the signal must pass on its way to the speaker cannot help but introduce some additional noise and distortion. So why have what isn't needed? (And, in this era of graphic equalizers, tone controls may be considered redundant in many home systems.) Furthermore, the manufacturer can concentrate his design efforts and construction costs on fewer circuits and thus can increase the quality of each.

Indeed, the bench tests at CBS Technology Center verify that the CM-301 accomplishes its task with a high level of competence. Distortion—both harmonic and intermodulation—is negligible. Throughout most of the audio range, what harmonics are generated appear to be lost in the residual noise—which, itself, is very low. Distortion per se makes its presence known only at the topmost test frequency

(20 kHz), and there it is less than 0.04%. The output provides more than adequate drive for typical power amps; clipping occurs only above 11 volts.

The frequency-response curve from a high-level input can be drawn with a ruler over the entire audio band and is down less than 1¼ dB at 100 kHz. The phono equalization comes close to the mark, with a maximum deviation of 1 dB throughout the measurement range. Phono sensitivity is adequately high for typical fixed-coil cartridges, and the input-circuitry overload level suggests that the preamp will gladly accept whatever even the most sensitive cartridges will deliver. High-level sensitivities are equally appropriate; though the S/N-ratio figures may not astonish today's super-spec world, the CM-301 sounds quiet indeed.

On such a unit, in our view, the purpose of the low-cut filter should be elimination of infrasonic signals—rather than tonal modifications, as in the sort of rumble filter that modern turntables have made largely obsolete—so we find the CM-301's filter less than ideal. While it effectively copes with such things as warp pickup, it takes a large slice out of the deep bass content as well.

This electronic-design decision could, perhaps, be argued either way, and there are others in the human-engineering department that also are arguable. For example, the CM-301 has no AC convenience outlets, so it cannot be used to turn other components on and off with the system. Audio International suggests, in fact, that it be turned on before, and off after, the power amplifier or even left on permanently since current drain is minimal. The preamp's muting circuitry lets through some transient burbles. When the muting fails, as it did on one sample we tried, the transients are powerful enough to endanger speakers. And some users will miss a tape-dubbing feature.

We found the volume control's twenty-two detents sufficiently close together to afford a smooth adjustment over the typical operating range. The balance control lacks a center detent, although its marked center position seems to be accurate. Its action is atypical: As one channel is faded, the other increases. Actuating the various switches elicits no annoying

Audio International CM-301 Preamplifier

Output at clipping (channels driven simultaneously)

L ch	11.2 volts
R ch	11.2 volts

Frequency response ±0 dB, 20 Hz to 20 kHz
+0, -½ dB, below 10 Hz to 65 kHz

RIAA equalization +1, -0 dB, 20 Hz to 20 kHz

Input characteristics (re 0.5 V; noise A-weighted)

	Sensitivity	S/N ratio
phono	0.78 mV	78½ dB
tuner	59.0 mV	86½ dB
aux	59.0 mV	86½ dB
tape	59.0 mV	86½ dB

Phono overload (clipping point) 145 mV at 1 kHz

THD + N (at 2 V output) <0.035%, 20 Hz to 20 kHz

IM distortion (at 2 V output) 0.0035%

clicks or noises. The phono preamp is truly quiet. You can hear only the slightest sizzle, and then only if your ear is practically at the tweeter. It is also exceptionally clean, and the sound—especially from directly recorded or digitally mastered discs—is transparent though a hair brighter than average. In any case, the CM-301 seemed to mate our cartridge quite well.

Keeping in mind that some options can be outboarded—via an equalizer to control tonal balance, a switching box for tape dubbing, a switched AC extension to turn the system on and off—to what extent does the CM-301 ask you to trade features for performance? It affords fine phono reproduction and the unencumbered signal routing implicit in the design concept. And (with the probable exception of the low filter) it concentrates on those elements that will not be redundant in any modern system. The intent is worthy; the effectiveness of its realization will vary with the priorities of the individual user.

CIRCLE 132 ON PAGE 89

A Moving Coil for the Price of a Moving Magnet

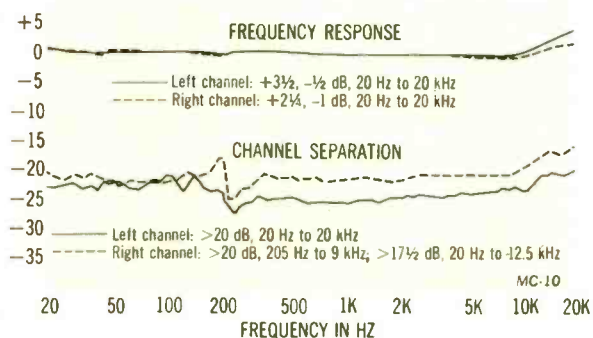
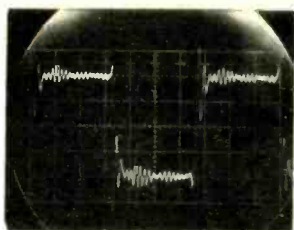
Ortofon Model MC-10 moving-coil phono pickup, with elliptical stylus. Price: \$125; \$185 with STM-72 matching transformer; optional MCA-76 head amp, \$265. Warranty: "limited," one year parts and labor. Manufacturer: Ortofon Mfg. A/S, Denmark; U.S. distributor: Tannoy-Ortofon, Inc. (Div. of Harman International), 122 Dupont St., Plainview, N.Y. 11803.

As head amps become more commonplace in preamps and even receivers—and they are beginning to—we suspect that more home listeners will want to try moving-coil cartridges and explore for themselves the special quality that many fans and reviewers find in them. One deterrent to this exploration has been the rather steep prices that moving-coil models command. Ortofon has made the cost barrier a good deal less formidable by introducing the MC-10 at a price competitive with high-end fixed-coil types; here at last is a way to get your feet wet without going to the cleaners.

Like most others of its kind, the MC-10 requires what is by today's standards a relatively high vertical tracking force for proper operation. The manufacturer recommends 2 grams, ±0.3 gram. Tests performed in the lab indicate that the pickup tracks acceptably at the bottom of this range and even



Square-wave response



Ortofon MC-10 Moving-Coil Phono Pickup

Sensitivity (at 1 kHz)	0.03 mV per cm/sec
Channel balance (at 1 kHz)	$\pm < 1/4$ dB
Vertical tracking angle	20°
Low-frequency resonance (in SME 3009 arm)	
vertical	11 Hz; 8 1/2 dB rise
lateral	11 Hz; 9 dB rise
Maximum tracking level (re RIAA 0 VU; 1.7 grams VTF)	
300 Hz	+ 12 dB
1 kHz	+ 9 dB
Weight	7.15 grams
Tip dimensions	
tip radii	6.27 by 15.45 micrometers
scanning radii	8.35, 9.40 micrometers

slightly below (although it would be foolish, in our opinion, to let this tempt one into cheating on the specified VTF). The frequency-response curve (as measured through Ortofon's MCA-76 head amp, which presumably supplies ideal loading) is reasonably flat, showing just a hint of a dip in the upper mid-range and a peak near the highest extreme of the audio band-pass. Balance between the channels is accurate to within a fraction of a dB at midband and proves excellent elsewhere as well. Good separation remains throughout the audible band, falling off just a trifle in the highest octave. Square-wave traces at 1 kHz show fairly rapid rise followed by modest overshoot and some ultrasonic ringing.

Measured second-harmonic distortion is kept under good control in the frequency range in which the spurious products are audible. Intermodulation distortion also is well controlled, and the vertical tracking angle is a reasonable match for the nominal values used in cutting most discs.

Mounted in an SME 3009 tone arm, the MC-10 shows a low-frequency resonance that is fairly pronounced but located almost ideally between the lowest audible frequency and the frequency at which disc warps are worst—that is, at the point where it will cause the least trouble. In practice, we found that the Ortofon tracks warps very well indeed and can maintain contact with discs on which warp-induced wow is clearly audible and annoying.

We listened to the MC-10 through our own head amp to maintain consistency with our tests of similar pickups, though the Ortofon head amp used for the lab measurements checked out well; the pickup's separation and distortion data, for example, are not compromised by limitations in the head amp. Overall, we would characterize the MC-10 as one of the brighter-sounding cartridges we have heard. It tends to emphasize sharp transients in a way that lends a little extra definition to prominent rhythmic features and individual vocal and instrumental lines, particularly when the texture is not very dense. Special clarity is thus afforded chamber music. In heavier textures that are complex or massed, the transient emphasis and brightness may strike some as rather excessive and apt to compromise smoothness. Voices, particularly in choruses, take on an edge that makes them seem more emphatic and robust than they could be in reality, and a string orchestra assumes an almost surreal gloss. The stereo image is stable and highly plausible with any program material.

A transducer always leaves its signature on the music it reproduces, and that of the MC-10, though bolder than some, is consistent with artistic quality and integrity. This, in view of the pickup's relatively modest price, represents a considerable achievement.

CIRCLE 135 ON PAGE 89

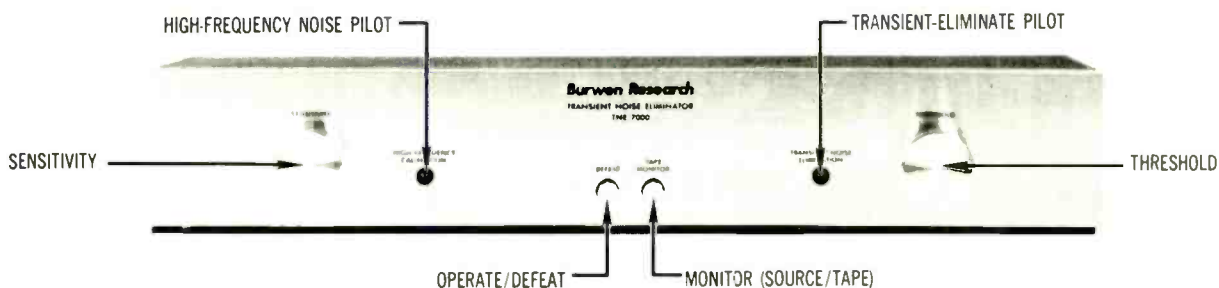
Burwen's Elixir for Ticks and Thunks

Burwen TNE-7000 *Transient Noise Eliminator*, in rack-mountable metal case. Dimensions: 19 by 3 1/2 inches (front panel), 8 inches deep plus clearance for controls and connections. Price: \$299. Warranty: "limited," one year parts and labor. Manufacturer: Burwen Research, 145 University Ave., Westwood, Mass. 02090.

Peeping out from beneath the prose describing "highly advanced state-of-the-art signal processing" in Burwen's manual—far more straightforward than most in the mysticism-ridden field of noise elimination—we found the provocative statement that the detection system, which is designed to dif-

ferentiate musical from nonmusical transients, puts a premium on what happens above the actual audio band. Scratches and dust motes produce transients that imply energy at all frequencies, without respect for human auditory limitations. But musical sounds, even when their overtone structures extend beyond 20 kHz, contain little if any ultrasonic energy by the time their signals have passed through tape-recording and disc-cutting heads, though most phono pickups will deliver a fair amount of output between 20 and 50 kHz. It is in this range that the TNE-7000 "looks" for tell-tale signs of nonprogram transients.

According to the circuit description, it looks there for fast



rise and fall times (acoustic transients decay more slowly because of reverberation), which is the primary operating characteristic discernible through the verbal smog surrounding other transient-eliminators we have examined. And, like them, the Burwen uses a delay line to hold signals long enough for the detector to determine whether the latest spike is of the offensive type; if so, this minute portion of the signal is blanked out.

There are two controls for adjusting the denoising action. The SENSITIVITY knob is turned clockwise during a relatively quiet passage until the pilot next to it dims, meaning that the overall level through the processor is adjusted to the residual high-frequency noise "floor" in the source; the THRESHOLD knob is then advanced far enough to remove transient spikes riding above the floor (as indicated by flashings of the pilot next to the knob) but not far enough to "chop up" the music through overeager blanking (as indicated by more or less continuous lighting of the pilot or by audible distortion).

Like most noise eliminators, the Burwen is intended for use in a tape loop and therefore has a tape/source monitor switch; unlike most, it processes the signal ahead of the tape recorder operating through it. This means that transients can be removed from the signals you are taping but not (without reconnection) from those being played back on the deck in question. This is as it should be, in our opinion. By denoising the signal before taping, you are spared the job of getting the denoiser controls just right for each playback, and in any event the Burwen's noise-eliminating action will be inhibited by some tape equipment—particularly cassette decks—because of their want of output above 20 kHz.

When the 7000 receives the highs it needs for correct operation, the audible effect still will vary with the nature of the noise in the program as well as the control settings. In general, deep scratches—the kind that go "thunk" on playback—will be softened by removal of some high-frequency content but with the bass content virtually intact; light scratches—best called "ticks"—may be removed altogether without trace; some ultra-high transients that can't be heard at all in normal playback will trigger the blanker and it will create a small but audible thunk. Thus optimum results require good judgment not only in setting the controls, but also in deciding whether the recording in question would be best served by using the TNE at all.

These properties were confirmed by measurements made at Diversified Science Laboratories. Continuous tones representing the desired program and superimposed short tone bursts to produce the tick that the Burwen was "asked" to remove covered a wider range of frequencies (for both) and durations (for the ticks) than we were able to find in real-world examples. The duration of the blanks produced varied between about 0.1 and 1.8 milliseconds, depending primarily on the duration of the simulated transient. Cleanest removals occurred with the shortest tone bursts (for example, a single cycle at 10 kHz or above) superimposed on relatively low-frequency

"music" (say, 100 Hz), where the removal was complete and the side-effects inaudible; with longer bursts and higher "music," audible thumping began creeping in as a by-product of the removal.

Measurements are shown (in the box) for both the noise-elimination mode and for the DEFEAT because the 7000 includes a buffer amplifier through which the signal must pass even in the latter mode—for example, when you are playing a tape on a deck whose system-connections the TNE is sharing. The worst-case distortion figures are all at 20 kHz; all measurements were 0.01% or lower below 10 kHz in DEFEAT and below 4 kHz in the active mode, where distortion begins creeping upward. But both distortion and noise can be characterized as materially absent. In the audible range, response is virtually flat; it remains so to beyond 100 kHz in the bypass mode but cuts off sharply with the processor activated, being down about 50 dB at 50 kHz.

That any transient noise can be removed successfully once it has crept (from whatever source) into a recording is, perhaps, among the minor miracles of modern technology. The Burwen is miraculous to that extent. But, like other noise-elimination devices, it will only perform these small wonders, and he who greedily expects it to banish every noise and do so without side-effects is destined for disappointment. The 7000's forte, certainly, is the removal of sharp ticks of moderate amplitude, and that is an ability to be grateful for, since the defect is common and the remedy generally less effective with competing devices.

CIRCLE 131 ON PAGE 89

Burwen TNE-7000 Transient Noise Eliminator

Output at clipping	L ch: >8 V	R ch: >8 V
Voltage gain	L ch: 0.0 dB	R ch: 0.0 dB
Frequency response, signal-processing mode*	+0, -½ dB, below 5 Hz to 22.6 kHz +0, -3 dB, below 5 Hz to 26.8 kHz	
Frequency response, bypass mode	+0, -½ dB, below 5 Hz to 115 kHz	
S/N ratio (A-weighted, re 0.5 V)	processing* L ch: 89 dB R ch: 88½ dB bypass L ch: 98½ dB R ch: 98½ dB	
THD, processing mode* (at 2 volts)	L ch <0.22%, 20 Hz to 20 kHz R ch <0.15%, 20 Hz to 20 kHz	
THD, bypass mode (at 2 volts)	L ch <0.020%, 20 Hz to 20 kHz R ch <0.018%, 20 Hz to 20 kHz	

*Processing mode tested with rotary controls at midpoints.

Open Reel: The format

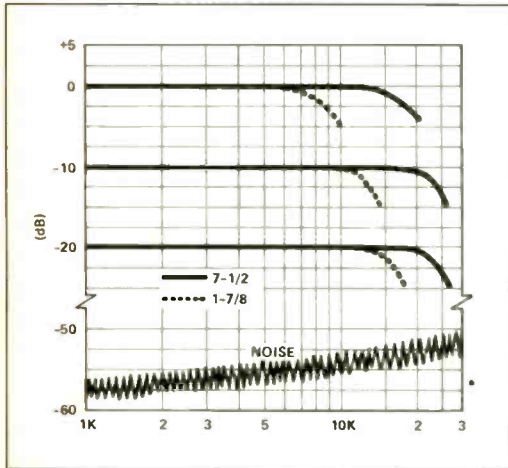
You're looking for a tape recorder. You've heard from friends and salesmen that cassette is the answer. At TEAC we make both cassette and reel-to-reel tape recorders. Because we make each for a specific person and application, you should depend on fact, not hearsay, before spending your money.

IT'S A MATTER OF PHYSICS

There are immutable reasons why cassettes can't match open reel fidelity.

Take tape speed. Open reel tape running at $7\frac{1}{2}$ ips is running four times faster than a cassette. And speed has more to do with the relationship between frequency response and signal-to-noise than anything else by far.

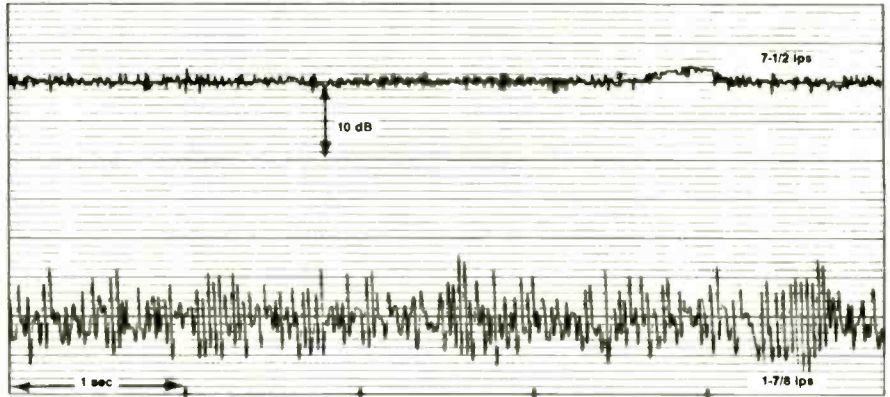
At $7\frac{1}{2}$ ips all audio frequencies can be recorded at full level



Tape saturation vs. level at $7\frac{1}{2}$ ips and $1\frac{7}{8}$ ips.

without tape saturation. Recording at $1\frac{7}{8}$ ips forces you to make drastic compromises in record levels. The more you have to back off on recording levels, the more you hurt the ratio of signal-to-noise.

In short, with a cassette deck you cannot have high frequency response and good signal-to-noise. So a cassette deck is always operating on the ragged edge of disaster. It's so much easier to get into trouble than out of it because there's a difficulty for every solution.



Comparative dropouts between $7\frac{1}{2}$ ips and $1\frac{7}{8}$ ips at 15kHz.

MORE IS MORE

The faster the speed the longer the wavelength, the longer the wavelength the more protection you have against dropouts. You also have an easier job of editing.

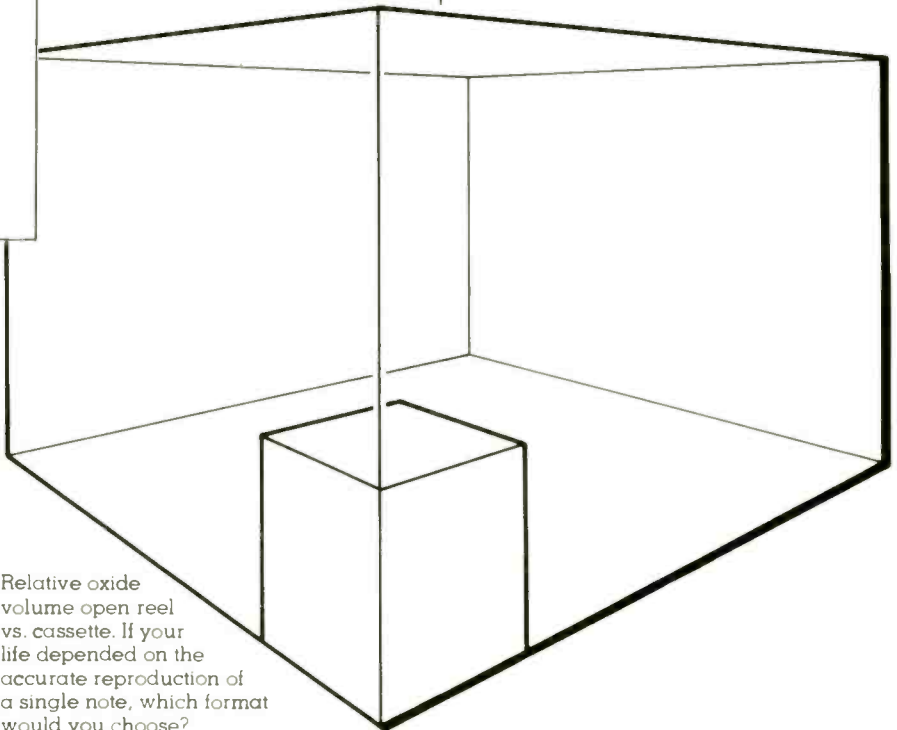
Now take track width. Open reel gives you twice the track width of cassettes. The wider

the track width the higher the output, the higher the output the better the signal-to-noise ratio. A wider track is also less sensitive to dropouts and, obviously, a wider track retains more magnetism.

And while we're on the subject of magnetism, an open reel tape has twice the oxide coating of a cassette.

Upshot: A total tape volume 16 times greater than a cassette, which means 16 times more magnetic particles to store and remember music.

If that sounds better to you, if we've convinced you the cassette format is a high price to pay for convenience, then you ought to look at the TEAC lineup of open reel tape recorders.



Relative oxide volume open reel vs. cassette. If your life depended on the accurate reproduction of a single note, which format would you choose?

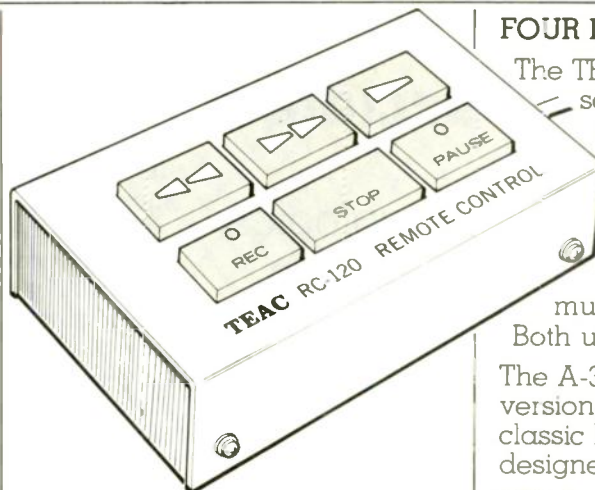
for the informed.

INSIDE INFORMATION

TEAC is a leading designer and manufacturer of computer and instrumentation recorders. In medical centers, for example, physicians depend on special TEAC units to record vital data in life-or-death situations; in remote wilderness areas, scientists depend on TEAC to monitor now-or-never phenomena like earthquakes.

From that experience we've learned that the quality of the transport mechanism is the single most important consideration in a tape recorder. For the computer industry, and for you. That's why many of the same engineers have designed the tape recorders we make for both.

Our entire reel-to-reel line has three motors and micro-switched solenoid operated transport systems, a blend of computer age sophistication and brute strength that nothing else can equal. Ask anyone whose opinion you respect.



OPTIONAL REMOTE CONTROL

Unlike some reel-to-reel machines, TEAC decks have full-function remote capability. Our optional remote units are the perfect answer for recording sessions where you can't be next to the recorder, or for operational access to a recorder in a custom installation.

TEAC®

First. Because they last.

FOUR EXAMPLES

The TEAC A-2300SX is the best selling, most successful open reel machine ever. Over 300,000 have been sold. The SR version of the A-2300 features an auto-reverse function so you can play music in two directions. Both use 7" reels.

The A-3300SX and its reversing version, the A-3300SR, are classic heavy-duty machines designed for 10" reels.

Whichever TEAC open reel recorder you choose, you can be sure it will last a long, long time. It was designed and built that way.

FACE IT

In the end, the cassette recorder is for those who are fonder of convenience than fidelity. If you want fidelity you can't ignore open reel.

In all crucial specifications, open reel tape recorders are better than cassette decks. And that message comes from the people who make the best of both. TEAC.



TEAC Corporation of America • 7733 Telegraph Road • Montebello, CA 90640

Bits and Particles

Are the "new" technologies threatening to make your tape equipment obsolete?

by Larry Zide

THE TWO CURRENT DEVELOPMENTS that have most captured the imagination of audiophiles are digital recording and metal-particle tape, sometimes called alloy tape. Digital recording is of greater interest in the record industry; we'll first consider the new particle, which portends so much for the home recordist and has created such confusion even before its introduction.

What is metal-particle tape? It is not a reel of thin, solid metal, like a carpenter's coiled ruler, but a tape that looks very much like conventional recording tape and whose magnetically active ingredient consists of pure metal particles. The tapes you are used to come coated with oxides of metal. Since the beginning of tape recording, ferric (iron) oxide powder has served as the basic "pigment" that gives the tape its magnetic properties. In recent years, another oxide—one of chromium—has been substituted (in so-called chrome tape) for ferric oxide or (in ferrichromes) layered over it. Chromium dioxide tapes have, indeed, been promoted as the ne plus ultra of the cassette field, but manufacturers of iron oxide tapes have improved their formulations to the extent that today there is little performance difference between good tapes of either oxide. Iron oxide frequently has made use of the metal cobalt as an additive, but pure cobalt has never made it out of the laboratory as a recording medium.

The magnetic properties of oxides are inferior to those of the metals—including alloys—themselves.

Then why have we not had a pure metal-particle tape before? Perhaps the biggest problem has been that, when you grind iron into a powder fine enough to be used as a magnetic pigment, the particles oxidize (rust) spontaneously—explosively, if there are enough of them—and what you are left with is a batch of good old iron oxide powder. Industrial hazards aside, that puts you back to square one.

Most of the problems of iron (and other metals as well) were controlled sufficiently for laboratory purposes back in the Sixties, when Philips, for one, demonstrated samples of metal-particle tape. But winning a battle of this dimension in the lab is a far cry from winning the mass-production war. Those problems took many years to solve. But one company—3M, maker of Scotch tape products—found means of protecting industrial quantities of iron particles from oxygen (apparently by some form of particle encapsulation) and announced last year a metal-particle tape called Metafine.

What, in practical terms, precipitated all this effort to produce a metal-particle tape? What will it offer, and what will it exact? To understand the answers to these questions, you should be familiar with three tape terms:

- **Retentivity** describes the ability of a magnetic medium to retain a magnetic charge. As an example, soft iron may be magnetized easily but will rapidly lose this magnetism; it thus has low retentivity. Retentivity is measured in gauss (a singular and plural form, incidentally).
- **Remanence** measures the amount of magnetism left on the tape after you stop applying magnetic force (from the recording head). It also can be interpreted to indicate how much magnetism can be placed on the tape before saturation (the point at which the tape can absorb no more magnetism). Remanence is measured as *lines per 1/4-inch*.
- **Coercivity** specifies the magnetic force required to reduce the residual magnetism on the tape to zero—in other words, how hard it is to demagnetize (and, conversely, how hard to magnetize) the tape. Coercivity is measured in oersteds.

As tapes have improved over the years, all of these characteristics have gotten better. Improved retentivity and remanence combine to offer tapes of higher output. (Retentivity affects the midrange frequencies, while remanence affects the highs.) Coercivity figures tell us how hard we must work to put that higher output on the tape and take it off again. The advantage of metal particles is their high coercivity, along with significant improvements in both retentivity and remanence.

What follows shows how 3M rates its new tape in respect to these characteristics in comparison with its top ferric oxide and a typical chromium dioxide tape. Some of the numbers vary in tabulations from other sources, but not by significant margins.

TABLE 1

	Typical Chrome	Scotch Master II	Scotch Metafine
Retentivity (gauss)	1,400	1,500	3,400
Remanence (lines per ¼-in.)	0.43	0.60	0.80
Coercivity (oersteds)	550	550	1,000

What do all these numbers actually mean in terms of improved performance? If we take chrome tape as the "zero reference," Metafine will have 3 dB more sensitivity at both middle and high frequencies and can take an impressive 9 dB more signal before saturation in the midrange and 7 dB more at the high end. And distortion can be as much as 21 dB lower (better than 100 times less)!

The data just quoted are for a cassette tape in a deck with separate record and play heads. Those machines with 1.25-micron combination record/play heads still will do much better with Metafine than with chrome, but there will not be as much improvement as there is with a separate 2.5-micron recording head.

It's not a matter of just running out and buying a metal-particle tape, however. Decks must change to handle the new tape—and the tape itself may be subject to change.

A Question of Compatibility

Even higher coercivities are possible in metallic pigments (1,300 oersteds has been suggested), but there is some question whether practical systems could make use of this theoretical improvement. As long as such questions exist, some industry insiders have argued, it is too early to standardize bias and equalization; and standardization, the argument continues, is necessary in order to head off the sort of anarchy that has been confusing consumers in the market for ferric oxide cassettes.

Well, folks, a standard does exist: The practices that 3M and Tandberg (which first introduced a deck capable of using Metafine tape) adopted in their initial products appear to have set a pace that will be matched in the many wares—soft and hard—that are due for unveiling in this country before you read this article. And even the more hesitant manufacturers seem to agree that the de facto standard probably will continue to represent excellent choices even after more of the smoke has cleared.

Specifically, those choices include a bias point some 6 dB higher than that for chrome (the exact value depends on head-gap width), which to a considerable extent is a function of the assumed 1,000-oersted coercivity, and a playback equalization of 70 microseconds—which not only suits Metafine well (better than it does chrome, according to Tandberg), but has the added advantage of play-



Photomicrographs from Ampex suggest differences between iron oxide (top) and pure iron particles. Ideal is small, well-proportioned "needle," consistent in size and shape, evenly dispersed, and randomly oriented in binder medium.

back compatibility with existing decks having the chrome EQ switch position.

In recording, however, the higher bias and erase currents required by the higher coercivity and remanence of the metallic pigment generally overtax conventional equipment. Even if the circuitry is redesigned to generate the higher current levels (which are almost universally beyond the adjustment range of existing decks), they would drive many conventional heads into magnetic saturation, much the way an overrecorded tape is saturated and hence produces distortions instead of the desired extra output. (This consideration is particularly critical if successful narrow-gap record/play heads are to be developed for the new tape.)

The solution lies in very careful choice of material and design configuration for recording and erase heads. Conventional materials *can* be used, but unconventional materials may offer greater promise. In a paper presented before the Audio Engineering Society convention in New York last fall, Tandberg's Herman Lia pointed out that in traditional magnetic materials, with regular crystal structures, the price of the magnetic "softness" (low remanence) needed to prevent saturation is a physical softness that raises questions of head durability. But new, amorphously structured materials (actually, in some cases, developed to solve similar problems in miniature transformers and the like, whose requirements are very similar)

First metal-particle tape to be announced was 3M's Metafine cassette. Before its market introduction, other major tape companies had already produced prototype samples of similar tapes.



couple magnetic "softness" with physical hardness—the ideal combination.

The present head-core saturation limits might also be stretched at the design stage. On Nakamichi's recent Model 580 cassette deck (which, be it noted, is not touted as Metafine-compatible) the so-called Direct Flux erase head is significantly more efficient than conventional heads: It concentrates more magnetic flux in the tape coating for the same level of magnetic flux within the head. Whether the Direct Flux head presages Nakamichi's approach to metal-particle tapes, the company isn't saying, but the potential for a happy symbiosis seems obvious.

But, again, metal-particle tapes need not wait upon adoption of these specifics—at least in three-head designs. Tandberg, in fact, determined that its existing cassette decks can be converted to Metafine use with comparative ease and plans to offer kits for the purpose. And—though at this writing they have yet to be introduced here—the prototype decks from other companies that plan to adopt metal-particle tape appear to rely on relatively conventional technology in the heads and associated drive circuitry.

The Next Round

Though 3M and Tandberg appeared to stand alone until recently, behind-the-scenes activity was intense and nearly universal. Recorder designers, whether pro or con on the metal particle, commented on the variability and high dropout counts of early tape samples, implying (whatever their public stands on the matter) that they were at least experimenting. Virtually every major tape manufacturer—Ampex, BASF, Fuji, Maxell, Memorex, Sony, and TDK—had something revealing to say on the particle, its manufacture, and its potential. Some have begun making the tape already or are

expected to shortly; the remainder are preparing for manufacture but want to see how the market shapes up before committing product to it. About a dozen companies showed prototype decks for the tape several months ago in Japan, and some have brought the prototypes here.

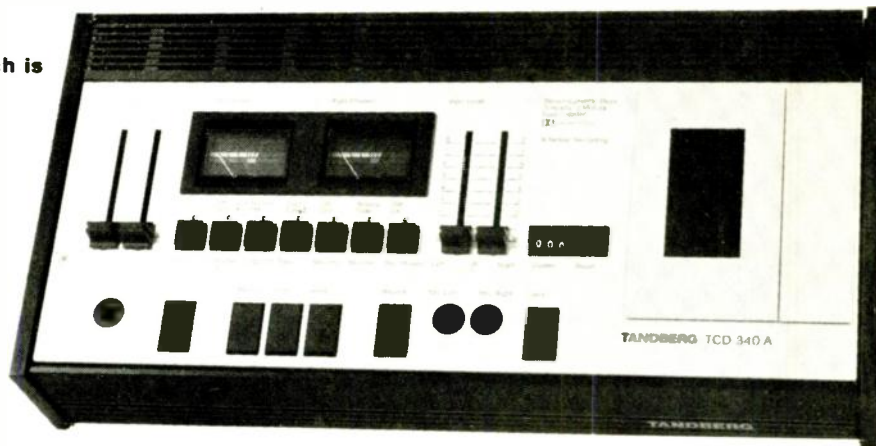
Those machines will enable you to produce cassettes with 6–9 dB better signal-to-noise ratios, and—with much less high-frequency recording drive for a flat output—significantly lower high-frequency distortion. With Dolby B noise reduction, expect dynamic ranges in excess of 70 dB!

Even without a deck capable of recording on the metal-particle tape, you can realize some of its advantages. Cassette duplication equipment for it was introduced last fall, and prerecorded tapes likely will be on the market this year. That will be a real step forward—with about 6 dB better signal-to-noise and cleaner signal at all levels than the best present prerecorded cassettes.

Unfortunately one major disadvantage of cassette tapes will not be alleviated by the improved tapes. At the slow transport speed, flutter will remain a problem. You also will have to pay about twice the price of present premium tapes for the metal ones, with little hope for the sort of volume market needed to pay off development costs and bring prices down in the near future.

"Anything that cassettes can do, open reels can do better" is virtually a maxim, since the wider tracks and higher tape speeds of the open-reel format offer distinct technical advantages. At this writing, however, no open-reel metal-particle tape is on sale, nor is it clear how it would best be used. It seems likely that the current equalization standards will not produce best results from the tape. Here, indeed, a new standard will be needed. Companies such as Ampex and 3M's Mincom division have been playing with metallic tapes, and presumably it is from such producers of profes-

First deck specifically engineered to handle Metafine and similar tapes was Tandberg TCD-340A. Tape switch is marked simply for Types I and II; one position can be set for chrome initially, reset for metal later.



sional recording equipment that the standards will come—giving studios and semiprofessionals using 15 ips as the standard speed a distinctly superior product and perhaps allowing consumer gear to operate one speed slower than before without compromising specs (except flutter).

A more immediate thrust of the metal particle reaches in the opposite direction. Sony has announced its use in microcassettes playing for up to 90 minutes per side (that is, a total of three hours of recording), though this is not to say that the format is imminently to be used for stereo music recordings. More likely is a conventional cassette playing at 15/16 ips (half the present standard)—a proposition that at least one major deck manufacturer is exploring.

Prognostications

As for digital recording, there's no getting away from the fact that it exists (see "An Old Show with New Numbers" by Harold A. Rodgers, March 1978). A variety of equipment is available for studio use, and some of it already is at work making the master tapes for superior discs. Outside the professional studio, digital recording offers much promise, but the price may be too great for some time to come. It represents an entirely new operation; conventional machines cannot be adapted and, generally speaking, conventional editing techniques cannot be used even with open reels because the cut upsets the digital coding and produces audible "glitches." The alternative—new recorders plus electronic editing equipment—will strain the pocketbook of any organization without strong investment-capital backing.

But metal-particle tape changes the picture considerably. If you have a pro machine such as an Ampex ATR-100, the investment may require a new head nest and some modifications to electron-

ics that can be had by replacing a circuit card. At worst, a new machine will be needed, but editing and dubbing still respond to present techniques.

Metal-particle tape together with the present level of noise-reduction equipment should offer performance characteristics similar to what is now promised in digital equipment. Accordingly, its introduction will undoubtedly retard digital recording in the market for open-reel recorders having four channels or fewer. And the present audio-cassette transport speed is too slow to deliver the "packing density" needed for digitalization. The potential of the metal pigment may change all this, however. The digital technology can benefit from the new tape's higher recording density, permitting slower tape speeds (and lower costs) with no sonic degradation. We might then have the best of both worlds: an audio cassette that, being digital, needs no noise reduction and is not plagued by flutter.

The advantages of the metal pigment will certainly accrue to video tape equipment. Picture and sound quality on present systems are fair to good; metal tapes can provide sparkling pictures and high-quality sound on those systems. And their transports already form the basis of digital audio cassette systems, with the purchase of a video tape recorder and a digital conversion box. This represents more than \$2,000 in hardware costs, and the tape costs too are relatively high. Compare this to three-head audio cassette decks, which can be bought for \$750 or less.

Above all, therefore, metal-particle tape appears to be just what the analog cassette has needed to reach sonic maturity, so to speak. And its playback compatibility with present equipment makes it a serious contender as a quality playback medium for recorded music. All told, 1979 should be an exciting sonic year, with much of the attention centered on metal-particle tape.

Your choice between these new LUX turntables depends on how you feel about bearing arms.

Although these two turntables are being introduced simultaneously, the PD-272 (with integrated tonearm) was actually designed and produced first. Its operation is purely manual—no automatic assist whatever. So if you believe that any amount of automation implies compromise, the PD-272 should appeal to you.

The performance will certainly appeal to purists. The servo-controlled direct-drive brushless DC motor with its gapless pole design is totally free of the cogging (pulsing) that plagues many other direct-drive motors.

The straight, statically-balanced tonearm has several important design

features. For example, the vertical pivots extend through the arm rather than simply suspending it from the outside. This minimizes lateral play and assures that the stylus will always remain perpendicular to the record. Also, the arm's nested tube construction and internal damping deal very effectively with resonance.

Then for those audiophiles who like to go their separate ways, we produced the PD-270 (like the PD-272 but less tonearm) and the TA-1 (separate tonearm). With TA-1, you change cartridges by changing the entire tonearm tube. This system is much better than changing headshells since

it minimizes mass at the critical point of the tonearm. The TA-1 also has a built-in stabilizer below the arm base which damps out vibration.

This additional flexibility has its price. The PD-270 drive system is \$285; the TA-1 tonearm, \$125. The complete PD-272 is \$345. (And for either tonearm, the new 115-C moving coil cartridge, \$195.)

As you can see, you do have to decide how likely you are to want interchangeable tonearms in the future. Think about it on your way to your LUX dealer. If it's still a problem when you get there, he'll help you bear up under it.

LUX Audio of America, Ltd.

160 Dupont Street, Plainview, New York 11803 • In Canada: White Electronics Development Corp., Orario



PD-272. Effective tonearm length: 240mm. Tracking force calibrated 0-3 grams. Accepts cartridges from 4-11 grams. Anti-skating, viscous-damped cueing, adjustable height. Illuminated strobe, pitch variable = 4%. Wow and flutter less than 0.03% (WRMS); rumble more than 60 dB. Same drive system specifications apply to PD-270. Both include removable dust cover.

TA-1. Straight, tubular, static-balanced. Interchangeable tube. Stabilizer. Otherwise similar to tonearm of PD-272.

Taped Programs for Your Car

Some tips on making and choosing them—for better on-the-road listening.



by Harold A. Rodgers

COMPARED TO THE GENERAL RUN of what you get free from broadcasters, having your own in-the-car stock of music programs recorded on tape wins hands down. Not only is the music your personal choice, but it is uninterrupted by irritating commercials, prattling disc jockeys, and repetitive news briefs. The catch, of course, is that these custom programs are not free—they will require an outlay of time and/or money. Making them yourself is not a difficult or abstruse matter in most cases, but attention to a few details can make tapes intended mainly for use in the car more enjoyable than they otherwise might be.

Despite increasing popularity as a listening environment, an automobile's acoustics are generally far from ideal. Normally a room of similar volume would be thought impossibly small for listening and would suffer from standing waves and poor intrinsic frequency response. And since the car usually is in motion while you're listening, noises from wind, engine, transmission, tires, and suspension vibration also obtrude.

Noise transmission can be alleviated to some degree by absorptive interiors and by the sound-deadening options that can be installed in many cars. (It is a good idea, if you plan to do much listening, to be sure that your car has had liberal noise treatment.) This acoustic "deadness" is a mixed blessing, however. It offers some immunity from unpleasant effects like high-frequency focusing and beaming due to reflections from curved surfaces, but it does so by damping the highs rather severely. Since many automotive cassette players do not offer much in the way of treble response anyway, you may find yourself listening to a very muffled sound. Signal shortcomings might well be fairly innocuous in a better acoustic environment, but the high noise level of the car and the high sensitivity of the ear to noise in the upper midrange (3-4 kHz) aggravate the shortcomings and render some important parts of the program inaudible or nearly so.

At a cruising speed near the national speed limit, a quiet automobile may have an interior noise level of 65 dBA or so. If equipped with a cassette player whose features and performance are akin to those of a fine home deck (most notably, Dolby decoding and frequency response substantially flat to 15 kHz or beyond), the music system of such a vehicle could do a fine job of reproducing most recorded program material, which has a dynamic range of 45 dB or so. Thus, in order for you to hear the softest passages above the noise, the peaks would have to be around 110 dB sound pressure level, which, while loud, is not uncomfortable unless the peaks last too long. We are tacitly assuming that the power amplifiers and loudspeakers in this rolling pleasure dome have the muscle that such a sound pressure level implies.

Most of today's cars are not this quiet, nor are they so opulently equipped. And even if the sound rig could produce levels that would override the higher background noise, the resulting playback would be uncomfortably loud and could conceivably even cause hearing damage. In circumstances such as these, some judicious doctoring of the program material can make listening far more pleasurable and would seem to be in order.

Wrong May Be Right

Since the most annoying noise found in the automobile interior falls in the mid- and high-frequency region, boosting this part of the spectrum a bit can help to mask acoustic interference with minimal falsification of the music. One convenient way of accomplishing this while keeping the collection of car tapes compatible with home playback equipment is to record on chromium dioxide—or other tape formulations using 70-microsecond equalization. The fact that most automotive decks offer only the ferric (120-micro-

second) EQ won't matter here, since we *intend* to play the tape "wrong" to get a brighter top end in the car.

A similar trick can be played by choosing Dolby-encoded tapes and playing them back in the car *without* Dolby decoding. Now the top end gets progressively brighter as the level gets lower, which should make a considerable contribution to the intelligibility of soft passages. Either of these methods (using both together might be necessary but probably is overkill) allows tapes for the home and car to be interchanged freely, with the "correct" playback characteristics reserved for the less problematic home environment.

The Graphic Solution

If you're the seventh child of a seventh child, one of these procedures will give you the exact high-frequency boost needed for maximum audibility of music in your particular mobile listening room. Otherwise, the spectrum of noise—which differs from one vehicle to another—will still create minor annoyances as the music gets soft.

In some respects, the ideal way of approaching a solution is via a graphic equalizer in your car. Not only can you adjust it by ear as you go—and re-adjust it to match changing ambient-noise conditions—but your aural perceptions also will lead you to correct automatically for response anomalies introduced by the rest of the system (meaning, in all likelihood, the playback deck) and the car's acoustics. This approach has three drawbacks: You may find it difficult to concentrate sufficiently on the road if you are constantly adjusting a multiband equalizer; today's cars are often too crowded to make comfortable room for an equalizer; and it's an added and perhaps unnecessary expense.

Why not, then, equalize in advance, right on the tapes that you intend to listen to on the road? It is difficult to determine what the optimum boost will be, and this system will net you a library of tapes that sound really good only when played in the car for which they were made. Therefore, it is a good idea to standardize the corrective EQ and to prepare only a limited number of cassettes (say, ten or so—whatever number your *dust-free* automotive storage will accommodate) for this use, erasing an old one each time a new one is recorded. That way the current mobile library can be kept in the car.

Obviously, most if not all of the material especially recorded for this use will be copies of other sources—most notably discs. This may violate the copyright laws, but I've never heard of anybody being pulled over by a traffic cop for copyright infringement. At any rate, in recording at home for the car, in order to pre-emphasize the highs appropriately, you will need a reference that approximates the noise spectrum of your car. If you own

or can borrow a portable cassette recorder and a good quality microphone to use with it, recording the ambient noise inside your moving car is the first step. Then play back the noise (possibly via a temporary hookup that puts the noise on one channel of your system and leaves the other free for the program, in mono) while listening to the music you intend to record, and you will be able to hear what part of the music is masked by the noise. By adjusting an equalizer inserted into the system between the program source and the recorder, you should be able to find the EQ setting that best over-rides the noise.

You can get more accurate results with the help of a sound level meter to make sure that your noise recording is reproduced at the same level as that in the car. In addition, you may want to pre-emphasize still further to correct for response shortcomings (which typically occur at high frequencies) in your car's playback system. But be careful: If you overdo the pre-emphasis, you may overload the tape. Once you have found an optimum EQ setting, that should be it until you change cars or your mobile sound system.

Compress and Conquer?

Dynamic-range compression is another method that tends to enhance the audibility of music when the background-noise floor is high. The Dolby B circuit is, in fact, a high-frequency compander, and playing Dolby tapes without decoding delivers up to 10 dB of compression—but only in the operating frequency band of the Dolby encoder, above about 2 kHz.

Ideally—if some auto-sound manufacturer will rise to the occasion by producing one—an adjustable full-range compressor could be mounted in the car. That would allow, once again, the use of the regular home cassette library for enroute listening. Failing that, a device such as the DBX 119 could be used (with a setting determined by experiment) to make compressed tapes that would be compatible to the extent that, if the compression setting is known, it can be reversed for home playback. (Simultaneous use of other forms of noise reduction probably would be problematic at best with some systems.) The degree of compression would be specific for the vehicle but would offer some enhancement in any noisy environment. And even in the absence of noise, moderate compression is not onerous.

Whether you will want to make use of any of the suggestions given here depends on your listening situation and how fussy you are about what you hear while driving. But unless your car has been stripped to near racing trim and lacks such sound-deadening niceties as mufflers, tailoring the sound for the road can offer a bonus in increased listenability and reduced ear fatigue. ●

The most powerful argument for our new receiver is not just power.



True, it's tempting to be swept up by our power.

150 watts per channel minimum RMS at 8 ohms, from 20Hz to 20kHz, with no more than 0.07% Total Harmonic Distortion, is nothing to sneeze at.

But raw power means nothing. What's important is how that power is delivered. In the case of the STR-V7, it's brought to you by Sony in a very classy package.

You get a combination of features and controls that are impressive on their own—but almost unheard of in a single machine.

To start with, we've built in a Dolby system, for decoding Dolbyized FM broadcasts.

The advantages of our tuner,

though, need no decoding. They include a normal and narrow FM IF bandwidth selector. It makes life simple for people in areas where their signals are crowded together elbow to elbow.

In our preamp section, the V7 comes equipped with a special phono EQ circuitry. Thanks to Sony's high IQ, it allows for direct connection of a low-output, moving-coil cartridge phono source. Without calling for an external step-up transformer or pre-amp.

When you're gifted with as much power as the V7, you need a way to keep track of it. This receiver keeps tabs with two power-output meters, monitoring the power being fed to the speakers. So overload can't result from oversight.

And all that power comes from our direct coupled DC power amp. And our power is stable, thanks to a high-efficiency, high regulation toroidal-coil transformer.

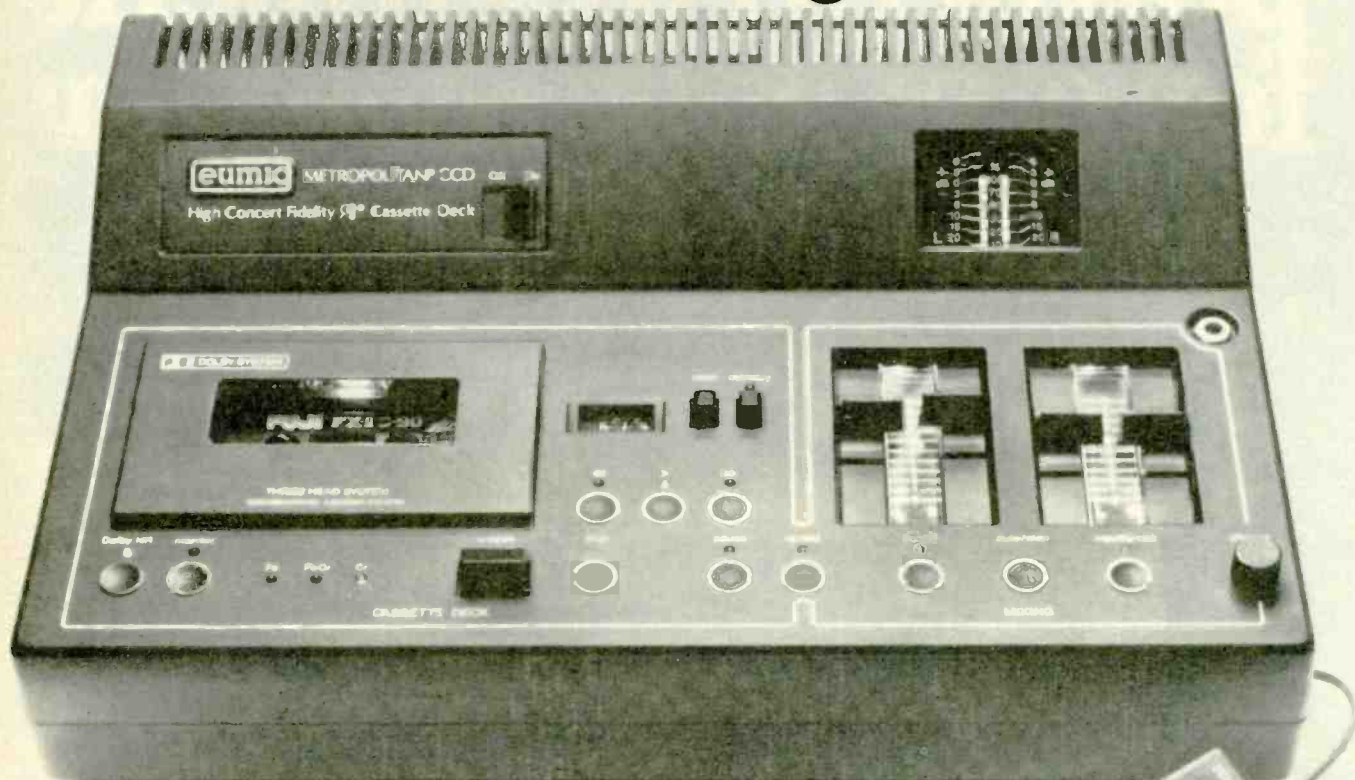
There's a lot more to the STR-V7 than power. This receiver takes the best that contemporary technology has to offer, and offers it in a single machine.

Other manufacturers may have the power to bring you power. But only Sony has the power to bring you more than just power.

SONY
AUDIO

The Eumig CCD.

Opto-electronically engineered for absolute recording excellence.



Eumig, one of the world's leaders in electro-mechanical research and development, has introduced a revolutionary new technology to cassette recording. It's the OPTO-ELECTRONIC SERVO CAPSTAN DRIVE SYSTEM incorporated in the unique Eumig CCD. This technology offers so many advantages that the Eumig CCD will out-perform every other cassette transport.

Ultra-Precision: The unique Eumig photo disc

Other decks use old-fashioned belts and flywheels to control the capstan. In the Eumig design these are replaced by a light-weight disc, photo-etched with 2500 radii, spaced precisely 1/50mm apart. When rotated, these radii create 15,000 pulses per second for instantaneous optically-sensed speed corrections. Wow and flutter is a mere 0.05% WRMS, and speed accuracy is $\pm 1\%$.



The Eumig photo disc weighs about 1/70th as much as a typical flywheel. When combined with an almost inertia-free, coreless drive motor, the CCD offers a startup time of less than 0.04 seconds, which means you never hear the wowing sound after a pause in recording. And the CCD boasts the fastest rewind time in the world—an astonishingly low 40 sec. (C-60).

Rugged reliability

The Opto-Electronic Servo System is only one among many dramatic advantages of the Eumig CCD. It offers three precision heads of our own design, mounted in a die-cast aluminum carrier made at our own facilities (as are virtually all parts of the CCD), for greatest precision. The Eumig CCD is engineered

with circuit boards rather than wires, for utmost reliability.

Advanced technology features

The comprehensive features of the CCD reflect Eumig's innovative technological approach. Two parallel LED displays allow simultaneous monitoring of both channel levels. Full solenoid/MOS logic is operated by feather-touch controls with logic-programmed LED indicators, and the flexible two-input mixing facilities use strictly DC controlled circuitry.

Perfect recording every time

Perfect performance is guaranteed with every type of tape because the Eumig CCD offers virtually flat frequency response to 20,000Hz (chrome); Dolby calibration adjustment for different tape sensitivities; and an azimuth adjustment to optimize high frequency performance with each and every tape.

The Eumig CCD, probably the finest deck in the world, is now available for \$1300, including full-function remote control, at select audio outlets throughout the country. Write to us for the name of the dealer nearest you. Then listen and compare. We believe you'll agree—it's incomparable.

Eumig (USA) Inc., Lake Success Business Park, 225 Community Drive,
Great Neck, New York 11020, (516) 466-6533

THE BROADWAY VOICE: PART II JUST SINGIN' IN THE PAIN

CONRAD L. OSBORNE CONCLUDES HIS DIAGNOSIS, BEGUN IN THE JANUARY ISSUE, OF THE AFFLICTION CALLED BROADWAY SINGING AND WRITES A PRESCRIPTION.

I HAVE DEVOTED what no doubt seems disproportionate discussion to the belt because it is the single outstanding technical usage native to American popular music, and because we have an epidemic on our hands—nearly all nonclassical female singers employ some variation of it. A few recording and concert artists, particularly among the jazz-influenced or modern “pop eclectic” singers, use it sparingly and have access to a timbral smorgasbord that includes head-register fare. Sarah Vaughan and Cleo Laine would be among the more interesting of them, vocally speaking. But by and large, the only preserve left for nonclassical “legit” female singers is in ingenue roles of the Broadway musical. Nowadays, this means mostly in revivals of '40s and '50s shows, but since such revivals occur with some frequency and continue to form the backbone of dinner theater and summer theater repertory, the species hangs on. It is descended directly from the operetta soprano leads of the more grandiose Herbert, Friml, Romberg, and De Koven shows. These roles frequently embraced a full operatic compass (though usually with a relatively low tessitura), and the most ambitious of them (such as Fifi in Herbert's *Mlle. Modiste* or Nina in Friml's *The Firefly*) called for runs, trills, staccati, crush notes, and other graces—the standard paraphernalia of the virtuoso soprano. Indeed, they were often written for operatic fugitives (e.g., Emma Trentini, Fritzi Scheff, Alice Nielsen), some of them very accomplished singers more or less in their primes. The usages of these parts gradually narrowed to the much-eased demands of the “legit” leads in the Rodgers-Hammerstein shows (Laurie in *Oklahoma!* and Julie in *Carousel*) and others of that ilk (Fiona in *Brigadoon*, Hilda in *Plain and Fancy*, Guinevere in *Camelot*) or in “nostalgia” shows like *Little Mary Sunshine*. It is sometimes found in such secondary parts as Tuptim in *The King and I* or Lady Larken in *Once Upon a Mattress*, survives vestigially (purely for musical coloration) in the ensemble sections of Sondheim's *Company* and *A Little Night Music*, and is occasionally used for parodistic effect.

In all these parts, we find the characteristic timbre/range slippage—a light, lyric quality is wanted, but the writing is mezzo in range and often plants the voice in the lower-middle range against brassy accompaniment, where such voices have to strain to compete, and usually wind up resorting to belt mix. An extreme example of the contradiction is the role of Lili in *Carnival*, where an ingenuous, girlish quality is indicated but three-fourths of the writing is in the octave between Cs, and often up-tempo. In the original cast, we find Anna Maria Alberghetti, who began professional life with a pretty, if somewhat thin and undeveloped coloratura timbre, kicking a reinforced pop mix up to D, where a rather

dark “covered” quality makes a sudden appearance for a third or so. Though she once displayed the high soprano extension, she evades the B natural at the end of “I Hate Him,” even on the recording.

The two singers who have made the most of female legit in the modern sense are Julie Andrews and Barbara Cook. For this discussion, Cook is the more interesting, since she has covered more ground and offers some recent evidence: It is a long distance from Cunegonde in the original *Candide* (1956) to “Barbara Cook as of Today” (Columbia PC 34493).

Cunegonde's “Glitter and Be Gay,” the last of the virtuoso operetta display pieces (and a send-up, of course) is a tough little scene but, as one is reminded every time a set of auditions comes up, it is within striking distance for quite a crowd of energetic young ladies. In fact, among the more talented young operatic coloraturas, renditions of it vocally superior to Cook's would not be a rarity, though I hasten to add that I'm not sure but what eight times a week, in the context of the full show, is a rarity. Cook sings it with reasonable accuracy and without cheating, and with the musical imagination and phrasing sense that still serve her. She also employs the bright, somewhat brassy tone and vowel formation made almost inevitable by what coaches like to call “clear diction” in common American speech, and at several points we pick up the edge of the thinned-out belt, especially in phrases heading up from the bottom.

After *Candide*, Cook settled into a lengthy career in the ingenue leads of many stage and studio projects. In her recordings of *Music Man*, the *Show Boat* and *King and I* remakes, and *Grass Harp*, she is consistently effective within the Broadway legit pattern. She represents it at its best, as Merman does the belt and Streisand the belt mix, but it is still there: the bright, light timbre that seems high but isn't, the rather weak lower range, and some gradually increasing signs that the voice is being tugged at from below. In *Show Boat* (1962), the upper-middle tessitura (F and G) flows rather fluently, and a high B flat emerges from the line with nice ease and freedom; but by *Grass Harp* (1971), the upper-middle is a bit sticky and tight, the one carefully setup B flat (at the end of “Yellow Drum”) more effortful and a bit shy of pitch. Another nice comparison of the Mary Martin/Patricia Neway sort is afforded by the two remakes of *King and I* (Columbia OS 2640, RCA LSO 1092), starring Cook in 1960 and Risé Stevens in 1964, respectively. Stevens was an operatic mezzo-soprano, by the time of this revival at the end of her singing career. Of special interest is “Hello, Young Lovers,” where Cook, trying to shade off on the final ascending line, appears to be nearing the limit of comfortable range at low intensity (around C and D), whereas Stevens floats

into it with room to spare. Stevens, the mezzo, then in her mid-fifties, finds the tessitura an easier "sit" than Cook, the lyric soprano more than twenty years Stevens' junior—and upon checking, we find further that the mezzo is actually singing the piece a half-step higher. It is still perfectly possible to prefer Cook to Stevens, or Gertrude Lawrence to both—I am speaking only to the vocal point.

After *Grass Harp*, Cook called it quits with Broadway ingenues, and unless I have missed an item, there is a six-year recording gap before "As of Today." To judge by this album, she has more or less given up the soprano struggle. There is a good deal of breathy mike voice in the middle, not much at all at the bottom, a light, pop-ish but unmistakable belt mix carried to D, and a top extension of only F, taken once nicely and once not, the difference being the vowel. Though at points there is a bit more constriction and nasality in the sound than formerly, the actual timbre of the voice is little changed, and this supports the observation that between the belt-mix vocalist and the Broadway legit "soprano" there is a sometimes fine line, both types offering slightly differing balances which have in common a proportion of thin chest involvement that constricts the voice and holds down its range. The belt pervades the usages even when disguised.

And expressively, the "belt" and "legit" categories represent terribly narrow, stereotyped choices. On the one hand, whiny complaints, crudely bouncy "comedy," and bitchily aggressive or brassily sentimental heroines; on the other, shallow sticky-sunny fairy-girls, model hometown U.S.A. But only with greatest rarity the suggestion of emotional or intellectual depth and range, reflected in the developed and integrated sound of a grownup woman. Sisters, arise!

About the male voice on Broadway, there is much less to be said from a technical viewpoint. Historically, the process has been attritional, a natural selection in reverse to guarantee survival of the unfittest. We have so far eliminated the vertebrates, and are still working our way down.

Traditional vocal usages have always been represented on Broadway in two male categories—"legit" tenor and baritone, each bearing the same relationship to operatic equivalents as obtains in the female voices: lighter timbres in lower tessituras. The tenors of pre-1930s usages, whether assuming leads in operettas or performing in minstrel and revue shows, were closely related to European operetta tenor and Irish tenor models. The voices tended to be light, pretty, and high-sounding, but with an effective range of only about an octave and a half, to A or so. Styles were lyrical and cultivated, often with use of falsetto co-ordinations for special effects. Mini-McCormacks—an example is John Steele, who introduced Berlin's "A Pretty Girl Is Like a Melody" in the *Ziegfeld Follies of 1919*. Tenor is also undoubtedly the proper vocal classification for many of the talk singers and personality performers of that time, and later—Eddie Cantor, Al Jolson, and Cab Calloway come to mind. As the singing leads in shows changed from tenor to baritone, the tenor voice gradually faded from the scene in any recognizable form. Postwar, the parts of Cable in *South Pacific* (William Tabbert), Mr. Snow in *Carousel* (Eric Mattson), Charlie Dalrymple in *Brigadoon*, and the title role of the original *Candide* (Robert Rounseville—perhaps one should also mention

the part of the Governor in the same show, taken by William Olvis) are among the handful of any importance at all—only one is a lead, and none is recent. The bass voice has never been accorded any importance on Broadway. Joe in *Show Boat*, the Pinza roles in *South Pacific* and *Fanny* (and Cesare Siepi's in the short-lived *Bravo Giovanni!*), a couple of supporting parts like Jigger in *Carousel* and George S. Irving's mock-operatic turn in *Gentlemen Prefer Blondes*, just about constitute the bass literature. (N.B.—Dozens of male roles are written in what looks like bass tessitura minus the low notes, but they are all sung by light baritones. Fully developed tenors and baritones have of course been present in the Broadway operas, as with Brian Sullivan and David Poleri, Lawrence Winters and Robert Weede.)

Baritone has been the sole male voice of any importance on Broadway for many years. It is the classical type America has produced in the greatest quantity and quality, so it is not surprising that this is reflected on Broadway, where it accounts for almost all the "real singing." There has been room for quite a line, from John Charles Thomas to Dennis King and on down: Alfred Drake, John Raitt, Howard Keel, Ray Middleton, Earl Wrightson, Robert Goulet, Richard Kiley, Jack Cassidy, George Gaynes, Lawrence Guitard, Harve Presnell, John Cullum—the list could be extended. A bright, manly tone is sought, and some access to softer dynamics in the more lyrical moments. Most of the voices sound like high baritones, but turn out to have only a clumsy approach to the top, or none at all—E or F is the usual limit. Of all the postwar "legit" baritones mentioned, only Raitt possessed a convincingly comfortable and reliable upper range, and as we listen to his recorded work since *Carousel* (e.g., the *Pajama Game* soundtrack, the *Show Boat* remake), we suspect the voice may well be tenor. The general singing habits of this sort of voice are classically derived, with certain limitations of size, range, and technical command, and the overall track record as to health and durability seems to be tolerable.

Then there is a category of role in which the singing is supposed to be word-based and the performer's attributes as actor or personality are assumed to carry the impact. Leaving aside the parts clearly created to work glamor performers like Rex Harrison, Robert Preston, or Richard Burton into a musical context, most of these fall into the "regular guy" category, calling for singing that demonstrates the (usually) likable "naturalness" of the character by eschewing anything so threatening as a professional singer's sound and technique. The most ambitiously written parts of this nature (and they are not easy) lie in the anomalous range of the "baritone/tenor"; Tony in *West Side Story* and Bobby in *Company* are instances—the latter's "Being Alive" lies in the same compass (but with emphasis on the higher end) as the baritone Prologue to *Pagliacci*, but this is hard to realize in the listening, since it is virtually a requirement that the vocal quality remain nondescript throughout.

These parts range downward in technical requirement to such roles as the male leads in *Mame*, *Funny Girl*, or the current *Annie*. Some of their singers (for example Jerry Orbach, heard in *Fantasticks*, *Carnival*, *Chicago*) show some vocal strength and patches of tonal quality, but on the whole their performances do not bear discussion in terms of musical effect. This male

writing is no more consciously considerate of the voice than the female, and is less interesting in what it attempts. But it is also safer. Like the female, the male is asked to punch and talk-sing against midrange accompaniment. But the untrained male voice, usually having greater chest strength than the female, is better equipped to handle it with minimal strain, and is not expected to ring the registral changes asked of the female.

One recent development in male usages, drawn from rock practice, deserves some comment. It is typified by the Broadway performances of such vocalists as Ben Vereen (*Jesus Christ Superstar*, *Pippin*) and other performers found in those shows and in *Hair*, *Godspell*, and other rock-influenced scores. Often it is a bit hard to pin down functionally because of a heavy disguise of glottal raspings, scrapings, and pitchless screaming, but it involves the driving of a high male voice up through the normal tenor range on wide-open vowels at strong intensities until it snaps into a reinforced falsetto around B flat or B. This falsetto sometimes extends a fourth or even a fifth, and in some vocalists is only slightly distinguished from the full voice.

The falsetto can then also be brought farther down for lyrical, "intimate" effects, and at quieter moments some of these singers recall another male "mike voice," the croon. In this usage, the belt problem is inverted, with a slack, weakish head register made to serve below the break. It has been little used on Broadway. (Between the belt and the croon, we have the spectacle of each sex crippling itself vocally to attempt the other's capability—is transsexualism the mass American closet kink?) Apart from the interesting fact that these rock usages represent the first professionally legitimized employment of extreme upper male range since the pre-Duprez operatic tenor, it is also notable that it duplicates the female belt practice, at precisely the same pitch levels, with the same highly aggressive tonal properties and, I venture to predict, the same tonic effect on medical profits. Most Broadway male singers employ what is sometimes justly termed "male belt" for the upper range, and they clearly demonstrate what it really amounts to: the attempt of any vocal amateur, male or female, to push an unintegrated voice above the break.

Practically speaking, can anything restorative be done about Broadway voices without sacrificing too much aesthetically and economically? The answers are obvious, and they will be practical as soon as someone does them and sells them to an audience (ah, then we'll never be rid of them!), which would seem a modest challenge for our vaunted promotional expertise. Here they are:

1) We must take singing seriously enough to return it at least partway to the position it has always held in any music-theater form, including the lighter ones—that of the primary expressive device, which it is necessary to employ with at least more competence than that of the talented amateur, and which has specifically musical attributes. Right now, it is simply not looked upon as a discipline; I daresay no one would assume that some fine operatic baritone, say Robert Merrill or Sherrill Milnes, could be thrust into the choreography of a demanding dance/act/sing role with a dozen jazz classes and a few weeks' rehearsal. But the fine dancer Edward Villella was dragooned into the part of Pal Joey, and friends, it's a singing role, too, with real songs that are not easily sung to good purpose. Knowing the extreme



Warren Linn

"A FEW JAZZ-INFLUENCED OR MODERN 'POP ECLECTIC' SINGERS USE THE BELT SPARINGLY AND HAVE ACCESS TO A TIMBRAL SMORGASBORD THAT INCLUDES HEAD-REGISTER FARE . . . CLEO LAINE AMONG THE MORE INTERESTING OF THEM."

difficulty of learning how to act or dance or sing even moderately well, and with the greatest admiration for those who become professionally adept at even one of these disciplines, I would submit that a more serious division of labor is called for, from each according to his trained abilities to us, according to our needs. We do not have to forgo the musical's unique blend of these crafts; we just have to be more careful of emphasis and more specific in role creation and casting.

2) Composers and arrangers need to score with more imagination and care. This will be far easier if well-trained, extended voices are used for leading roles, because they are comfortable in tessitura that carries better and gets away from the easily covered midrange. It is preposterous that no use is made of the bass, tenor, or true soprano categories. Instrumental scoring can be spread out more (adding to, not restricting, the style range and timbral possibilities), and the practice of doubling the voice in midrange with brass or heavy reed instruments should just be stopped. Songs should be written to express what singing has to add, not what any actor can convey better plus loud accompaniment. Dialogue underscoring should be kept lighter, ditto the accompaniments to talk-songs or other vocal settings that convey primarily verbal information. Somehow, composers have solved these problems, in much larger theaters with much larger orchestras, for quite some time now. It's a matter of competence. If the scoring really requires belt writing, it can certainly be lowered in range, shortened in length, and more considerably accompanied.

3) In conjunction with (2), the use of amplification for general purposes should be discontinued—starting here, starting now, if I may wax titular. It is currently used to simply lay on quantities of sound that are better obtained (more musically, more clearly) by other means, or to disguise the inadequacies of performers who have not trained their voices or of composers/arrangers who haven't learned how to do (2). It penalizes the performers whose voices do attain the frequency and intensity levels suitable to theatrical use (they are made to adjust to the conditions designed for the vocally handicapped), and lends support to the assumption that singing need not involve any expertise or all the nasty work that goes into acquiring it. Shall we apply the same principle to dancers, using pulleys and wires to extend limbs and levitate bodies, hidden trampolines to project leaps?

Again, these problems have all been routinely solved by professional competence, in the recent past and yes in these very same theaters, gentlemen, I say right here in River City. Of course, this does not preclude the use of amplification for special effects or to some genuine artistic purpose. The latter is lurking about somewhere but not yet, I assure you, on Shubert Alley.

4) Performers have a responsibility, most of all to themselves, to secure adequate amounts of knowledgeable vocal training, and to protect themselves in selection of repertoire. For a performer of no special vocal gift (which describes most), this takes a considerable commitment of time and money. Without it, such a performer should stay out of the musical theater. Everyone involved, including composers, producers, agents, and musical directors, has a measure of ethical responsibility in this regard, but teachers and coaches bear a special degree of such responsibility. If those who know



**"OF ALL THE POSTWAR
'LEGIT' BARITONES, ONLY
JOHN RAITT POSSESSED A
CONVINCINGLY COMFORTABLE,
AND RELIABLE UPPER RANGE."**

will not fight to protect performers, who will? And if they don't know, why are they teaching?

5) A real campaign must be mounted for performer protection against unreasonable, abusive, and exploitive use of the voice in rehearsal and performance. Singers simply cannot rehearse and perform full-out with the same sustained frequency as actors. Eight a week for many leading roles, and for ensemble singers in heavy shows, is too much. Seven shows per week, with alternate leads for matinees and more swing relief for ensemble singers, is a punishing enough level—or eight, with nightly alternation in the leads, if preferred. Rehearsal sequencing and pacing need to take vocal endurance into account. Incredibly, the onus for difficulties arising from the present conditions is laid on the singer, when the real problem is the lack of care and knowledge among those who do the structuring. Unions should take the lead in this matter; unfortunately, Broadway shows do not fall under the jurisdiction of AGMA, the singers' union, but of Actors' Equity, wherein singers' considerations are not a majority matter.

There you have it. Please do not write with the plaintive commercial excuses—I doubt they'll stand up if we call the bluff. Besides, where *did* we acquire the notion that art is supposed to turn it over for speculators? Only in America. . . .

can you be bribed?

You get a \$35.21 bribe when you try only 10 DAK ML90 high energy cassettes for only \$2.19 each!



Hats off to Maxell. Their UDXL cassette established a new standard of quality for all cassettes.

The new DAK ML90 starts another new technology. A technology of extreme reliability and protection from Hi frequency losses.

Later we are going to offer you a valuable bribe, if you will test these cassettes, risk free; so read on!

YOUR TIME IS PRECIOUS

Imagine yourself just finishing recording the second side of a 90 minute cassette and horrors, the cassette jams. Tape is wound around the capstan, your recorder may be damaged and you've just wasted 90 minutes of your time and perhaps lost a great recording off FM.

I'm sure this is one experience we all dread, and is one of the main reasons to buy name branded guaranteed tape you can trust.

Enter DAK. We manufacture over one million units of cassette tape each month, and many of our cassettes are used for high speed duplication, which causes more cassettes to fail than any other use.

When we first started, DAK's cassettes failed, just like many others. So we installed over \$20,000 worth of high speed duplication equipment at our factory and set out to design the perfect cassette.

FAILURE

Failure after failure. We substituted, remade, tested and retested the over 20 parts of our cassette, and checked everyone else's cassettes. Finally after over 6 years we positively linked cassette failure or the prevention of failure to the slip sheets, or liners in the cassette.

We were not alone. Scotch, TDK, and several others must have been doing the same research because they have also been coming out with special improved slip sheets.

MOLYSULFIDE

A new chemical named molysulfide, that reduces friction within the cassette several times better than graphite gave us success.

We developed polyester slip sheets with raised spring loaded ridges coated with a unique formulation of molysulfide and graphite.

The tape ran more smoothly than ever before within the cassette. The new formulation is also much tougher than the graphite formulation, so it is extremely resistant to wear.

Static electricity within the cassette was drastically reduced by the low friction, and easily bled off, so its tendency to erase very high frequencies was drastically reduced. A very important consideration for often played tapes.

The molysulfide formulation gives both superior electrical and mechanical performance, thus it has formed the

basis for the birth of the new DAK ML cassette.

MAXELL IS BETTER

Yes honestly, if you own a \$1000 cassette deck like a Nakamichi, the frequency response of Maxell UDXL is superior to DAK and you just might be able to hear the difference.

DAK ML has a frequency response that is flat from 40cps to 14,500cps ± 3 db. Virtually all cassette recorders priced under \$600 are flat from 40cps to about 12,000cps, so we have over 2000cps to spare, and you'll probably never know the difference.

No apology We feel that we have equalled or exceeded the mechanical reliability of virtually all cassettes and offer one of the best frequency responses in the industry. Maxell UDXL is truly the Rolls Royce of the industry, and DAK is the 100% US made Cadillac or Corvette!

Price DAK manufactures the tape we sell, you avoid paying distributor and retailer mark ups. While Maxell UDXL 90s may sell for \$3.50 to \$4.50 each, DAK ML90s sell factory direct to you for only \$2.19 each.

YOU WIN

You are paying less for the 10 90 minute cassettes than you would pay for the bribes we are offering if you went to a Radio Shack Store.



Yours Free

CHECK THE VALUE OF THE BRIBES AT RADIO SHACK

Think of it, 10 six foot hook up cords with RCA plugs at each end. Whether you use the cords now, or when you buy new equipment, those of us who are tape recorder nuts, never seem to have enough. Radio Shack sells six foot cords for \$1.89 each.

You will find dozens of uses for this deluxe battery eliminator AC adaptor around your home or office. 4 voltages, 3, 4.5, 6 and 9 volts. 4 plugs will fit virtually any calculator, radio, or battery operated recorder we have seen. You'll save a lot of money on batteries. Radio

Shack sells a similar 4 voltage adaptor for \$9.95.

The deluxe 12oz can of spray head cleaner will clean your tape heads for years to come. The handy snorkel included, can reach just about any tape head, even 8trk heads. Radio Shack does not sell a large 12oz can, but 12oz from them costs \$6.36.

The Radio Shack prices are not list prices, but the actual prices you would pay when you walk in the door.



Yours Free

WE WIN TOO

Customers like you are very valuable in the form of future business. We anticipate receiving over 6000 orders and 4500 repeat customers from this advertisement. We are betting you will buy our cassettes again, and we are putting our money where our mouth is!

TRY DAK ML90 FREE

We want you to try these high energy cassettes on your own recorder without obligation for 30 days. If you aren't 100% satisfied for any reason, simply return the tapes and bribes to DAK for a full refund.

To order your 10 DAK ML90 minute high energy cassettes and receive your \$35.21 bribe with your credit card, simply call toll free 800, 423-2636, (in Calif. call 213-984-1559) or send your check for \$21.90 plus \$3 for postage and handling for each group of 10 cassettes and bribes to DAK. (Calif. residents add 6% sales tax).

DAK unconditionally guarantees all DAK cassettes for one year against any defects in material or workmanship.

Why not order an extra group of 10 DAK ML90 cassettes for yourself or a friend? We will add one free ML90 cassette for each additional 10 you buy and of course you get all 3 bribes with each group of 10 tapes.

DAK INDUSTRIES INCORPORATED

Call TOLL-FREE (800) 423-2636
In California Call (213) 984-1559
10845 Vanowen St., North Hollywood, CA 91605

**BEYOND THE FOREGROUND:
A DIRECTORY OF
SMALLER AUDIO COMPANIES**

(PART TWO)

Close observers of the audio scene know that just beyond the foreground of mammoth mass-market multinationals and names that have been around so long as to be synonymous with quality audio lies a significant and promising multitude of companies that rarely receive the attention they merit: the smaller and specialized manufacturers (and importers) of audio equipment and accessories. Though they are often somewhat imprecisely referred to in the trade as the "esoteric" or "high-end" manufacturers, their products—and the potential purchasers of them—probably vary even more widely than those of the "majors." But such companies have a few things in common: limited production facilities and similarly limited or regional distribution, and budgets that seldom permit access through advertising to the broad national public reached by such journals as this one. With this in mind we extended a blanket invitation to these companies to tell their stories in their own words for readers of this special section. What follows is selected (and in some cases slightly adapted) from the responses. The first installment of this directory appeared in January 1979, and subsequent installments are planned for forthcoming issues.

Apt Corp.

P.O. Box 512
Cambridge, Mass. 02139
Danny Kumin, Sales

Apt Corp. was formed early in 1977, with the goal of research for and development of high-quality, cost-effective audio equipment. Its first product is the Apt Holman preamplifier, the first full-function control preamplifier



Apt Holman preamplifier

to deal effectively with the wide range of interactions present in modern audio systems. Designed by Tom Holman, the preamp includes cartridge termination switches, newly designed tone controls and loudness compensation, and a unique mode control, as well as anticrosstalk and RFI-proof circuit design.

The Holman preamplifier sells for \$447 in the East, \$458 in the West.

GLI

29-50 Northern Blvd.
Long Island City, N.Y.
Paul Friedman

GLI, a division of VSC Corp., is a major manufacturer of discotheque speakers and electronic components. GLI started in the discotheque business, and their speakers have been installed in the finest discos all over the



GLI Dwarf

world. Recently they have seen a broadening of the market for their products and have been selling speakers for rock groups, skating rinks, theaters, electronic music, nightclubs, schools, stadiums, restaurants, and discos.

GLI has just introduced a portable heavy-duty speaker. Nicknamed the Dwarf, Model FRA-1 is about the size of a suitcase but delivers sound comparable to much larger units. It has a wide range of applications, including vocal and instrumental amplification, movie and legitimate theaters, stage monitoring, skating rinks, discotheques, restaurants and clubs, on-location recording, multimedia presentations and sports events. The Dwarf has an array of four solid-state supertweeters and eight 5½-inch cone drivers facing forward, plus a 15-inch passive radiator facing to the rear.

The Great American Sound Co., Inc.

20940 Lassen St.
Chatsworth, Calif. 91311
Adam Zareba
(213) 998-8100

The Great American Sound Co. introduced its first product—a solid-state power amplifier named Ampzilla—four years ago. GAS quickly earned a reputation as a company committed to making high fidelity components that, through the use of self-developed technological advances, are sonically and mechanically unsurpassed. Thaedra, the

company's first preamplifier, enlarged this reputation with such innovative features as an integrated, single-stage, RIAA-equalized head amp and servo-controlled line amplifier. Today we manufacture products in several price categories that take advantage of the sonic benefits of servo control. GAS has grown so that now, in addition to its distinguished line of power amplifiers and preamplifiers, it offers four moving-coil cartridges (the Sleeping Beauty series), two auxiliary moving-coil cartridge phono preamplifiers (Goliath II and Self-Powered Goliath II), and a passive phase inverter (called, simply, The Bridge) and will soon introduce its first tuner, Charlie, a digital-display, keyboard-operated, phase-locked loop FM model. A power amplifier called Godzilla, with the ability to put 1,000 watts per channel into 2-ohm loads and featuring a slew rate of 1000 watts per microsecond, is also soon to be marketed.

The David Hafler Co.

5817 Roosevelt Ave.
Pennsauken, N.J. 08109
Edward J. Gately, President
(609) 662-6355

David Hafler has developed a formidable reputation within the audio industry. Shortly after World War II he built an output transformer that quickly became the key to the best-selling amplifier kit on the market. This invention led to the founding of Dynaco in the early Fifties. He also invented the passive matrix for two-channel stereo, which offered quadraphonic effect, and developed an inexpensive bookshelf speaker that caught the nation's fancy. Eventually he sold Dynaco to Tyco Labs, and soon afterward he surfaced as a principal in Ortofon, which has a well-respected place in the tone-arm and cartridge market. Ortofon was later sold to Harman International.

About a year and a half ago he founded the David Hafler Co., which currently offers one product, the DH-101 preamp. Our claim is that the new preamp delivers the same specs for \$200 that \$1,000 models do. We have about 10,000 square feet of production area and ten employees. Our products are distributed through more than 100 dealers.

Janis Audio Associates, Inc.

2889 Roebling Ave.
Bronx, N.Y. 10461
John Marovskis, President
(212) 892-7419

The Janis line of products is the result of designs by John Marovskis, the president. Our focus is on equipment that enables the user to obtain as accurate low-frequency sound reproduction as is allowed by the listening environment, and to do this with the

minimum of complexity and need for specialized knowledge. To this end Janis produces two woofer systems (W1 and W2) of a specialized design that enables the response characteristics to be accurately measured, predetermined, and defined. The sole concerns are the room / speaker interface, and the interface of the woofer with the rest of the system. These concerns are resolved through such features as comparator-switching, which, when used with Janis' special sound sources, allows the total system to be optimally balanced to a 1-dB accuracy by ear alone and also allows the optimum location of the woofer and the associated wide-range speakers.

Another Janis development is the DC electronic compensation technique, introduced on the Companion 1 single-channel full-range power amp and Interphase 1 single-channel crossover amp for one or two subwoofers. The compensation technique repositions the cone of the woofer driver under in-use conditions for lowest distortion and maximum bass performance.

In sum, the aim of our products is to enable the user to obtain the flattest and most accurate bass response possible for his listening room. A full exposition about bass reproduction is available from Janis.

Mordaunt-Short, Inc.

1919 Middle Country Rd.
Centereach, N.Y. 11720
Joel Schwartz, Vice President
(516) 981-0066

Mordaunt-Short Ltd. was established in London in 1967 for the design and manufacture of high-quality loudspeaker systems. Early in 1970 the parent company moved to the Hampshire market town of Petersfield and in 1975, following further growth in the demand for our products, to a converted mill on the River Rother in the pastoral West Sussex countryside bordering the town. By no means unfittingly for the premises of a company dedicated to the greater enjoyment of music, Durford Mill dates from 1756, the year of the birth of Mozart.

Amid the wealth of accomplishment of audio technology worldwide, the design of quality loudspeakers remains a sphere of British eminence. In this tradition, our products have become ever more highly regarded not only for their specifications, but for the uncompromising craftsmanship of their manufacture and for their surpassing "musicality" in performance. Now, following the development of our outstanding bass and midfrequency transducer, the DSB 208, we have pleasure in introducing a new generation of loudspeaker systems, the Mordaunt-Short Carnival, Festival, and Pageant Series 2. In the prototype stage is our Signifier model.

Mordaunt-Short Ltd. is a progressive, closely knit private company, devoted to the

traditional standards of commercial practice, to the advancement of audio technology, and to the greater pleasure of the truly discerning. Whether you be primarily music-lover, high fidelity enthusiast, or homemaker, these products have much to offer you.

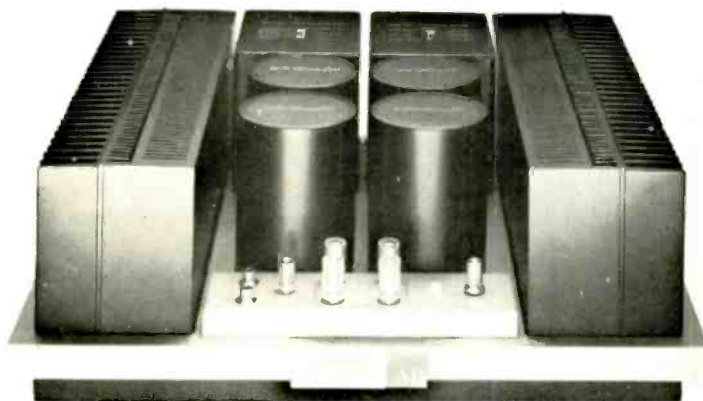
Pedersen Acoustics

Box 47
Chestnut Hill, Mass. 02167
Paul Schindler, Director of Marketing
(617) 877-8103

Founded in 1976, Pedersen Acoustics (a di-

vision of Pedersen Research) set out to develop a product of uncommon quality and value to satisfy an especially demanding segment of the consumer audio market. This product, our Model HF-1, a large full-range loudspeaker system, was designed by a dedicated group of scientists willing to approach the problems in achieving convincingly realistic musical reproduction with completely open minds.

Founder Dr. Norman E. Pedersen maintains that convincing loudspeaker performance is a function of efficiency, dynamic range, and distortion, coupled with the effective elimination of unwanted or parasitic cabi-



Series 20®

IT TAKES GUTS TO BE MORE EXPENSIVE THAN McINTOSH

McIntosh might be considered an expensive extravagance by the average high fidelity consumer. However the true audiophile perceives reliability, proven engineering and classic styling as necessities rather than luxuries.

The true audiophile also appreciates outstanding specs and the state of the art technology that distinguishes Series 20 from the field.

Consider the Ring Emitter Transistor out-put stage in the Series 20 M-25 Class AB Power Amplifier that provides incredible high frequency performance.

Consider the Series 20 F-26 FM Tuner's parallel balanced linear detector that delivers the lowest distortion available.

When you realize how exceptional Series 20 is, you'll marvel at how inexpensive expensive can be.

If you would like full information on Series 20, please send us the coupon below.

To: Series 20
Dept HJ
20 Jewell Street
Moonachie, New Jersey 07074

Please send me a complete dealer listing in my area.

Please send me the specs for the following circled Series 20 components.

M-22 Class A-Stereo Power Amplifier	D-23 Multi-AMP Elec. Crossover Netwk.	M-25 Class AB Stereo Power Amplifier
F-26 Advanced Quartz FM Tuner	A-27 Class AB Integrated Stereo Amplifier	F-28 Quartz FM Tuner
PLC-590 Quartz PLL Servo- Controlled Turntable	PA-1000 Carbon Filter Tone Arm	U-24 Program Source Selector

Name _____

Street _____

City _____

State _____ Zip _____



BGW COMPONENTS: The "Art-of-The-States"

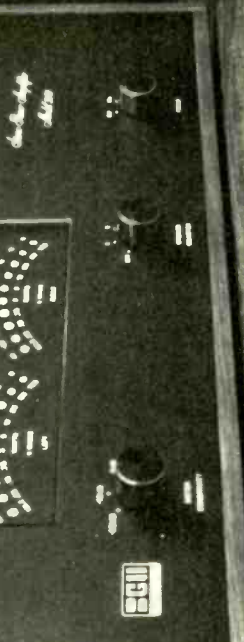
Foreign components dominate the consumer hi-fi marketplace. But when you walk into a pro-recording studio and take a look through the double-glass window, it's mainly American gear you see. And, when it comes to the amplifiers that drive the monitors and musicians' headphones, that usually means BGW.

The matching Model 210 Power Amplifier and the Model 103 Preamplifier share this professional heritage. Both have performance and features that define the standards of component audio. Write us or contact your franchised BGW dealer for full technical and feature information.

Get Behind the BGW "Art-of-The-States" Components. The pros already have.

BGW
SYSTEMS

BGW Systems, Inc.
13130 South Yukon Avenue, Hawthorne, California 90250
In Canada: Omnimedia Corp., 9453, Cote de Liesse, Dorval, Quebec H9P 1A3



net resonances. Since dynamic range is a critical function of efficiency, and since low distortion is a function of dynamic range, the most suitable low-frequency solution proved to be the time-tested folded horn. Unlike other systems of speaker porting, a properly constructed folded horn can provide essentially resonance-free propagation of bass down to extremely low frequencies. Transient response, a critical aspect of realistic loudspeaker performance, has been painstakingly optimized over the entire rated bandwidth.

An electronic equalizer utilizing passive filtering precisely compensates for the natural low-frequency rolloff of the folded horn and provides the user with level controls below 100 Hz and above 3,500 Hz. Bi-amplification capability is also provided. With use of this equalizer we have been able to obtain a smooth, wide frequency response spanning the limits of audibility.

Precedent Audio Products, Inc.

306 E. Oliver St.
Baltimore, Md. 21202
Brad Olschansky
(301) 685-6620

Precedent announces the availability of two new products, the MZ-Mod III and MZ-Mod II speaker systems. The design goal of the speakers was to incorporate the many positive qualities of today's so-called reference systems and eliminate the negatives to create what can become a reference system for the next decade. After five years of research and development and many thousands of hours of listening, designer Murray Zeligman has realized his goals in these two speakers.

The MZ-Mod III is of modular design and consists of three drivers in three separate cabinets that stack upon each other. The woofer consists of an 8-inch KEF driver in a 9½-foot transmission line. The midrange consists of a 4-inch KEF driver in a 7½-foot transmission line, the first such application of a true transmission line. The tweeter is a KEF T-27, standing on a cabinet that contains the crossover network.

The two models are housed in identical midrange and tweeter cabinets. To convert the Mod II to a Mod III, you add the woofer modules and flip a switch on the crossover from two-way to three-way. This allows for higher power handling by taking a load off the midrange and increases bass response by an octave and a half. The MZ-Mod III sells for \$1,333 a pair and the MZ-Mod II for \$666.50 a pair. The woofer modules sell for \$666.50 a pair.

Rank Hi Fi, Inc.

20 Bushes Lane
Elmwood Park, N. J. 07407
Geoffrey Miller

Rank Hi Fi was formed in June 1977 as a wholly owned United States marketing division of the Rank Organization in Great Britain, an \$800-million company that sells its audio-visual products in more than fifty-five countries on seven continents. Rank has established a full network of representatives and is now selling its Wharfedale and Leak loudspeaker systems throughout the country.

The Leak Model 3090 (\$870) provides a transmission-line bass enclosure for a 15-inch woofer. The upper unit is swivel-mounted and contains a 7-inch lower midrange and a 4-inch upper midrange driver, plus the exclusive Rank Isotweeter. Each of the three upper-range speakers has its own level control plus a sophisticated 14-element network for the crossover frequencies.

The Wharfedale E-70 (\$475), a large floor-standing speaker with an open-mesh grille, is a three-way unit with a 10-inch woofer that provides high efficiency and flat bass response. The crossover to the midrange drivers is at 800 Hz, and another crossover at 7,000 Hz is to a horn-loaded compression tweeter. The E-70 is attractively finished in oiled walnut and comes in matched pairs.

Thiel Audio Products Co.

4158 Georgetown Rd.
Lexington, Ky. 40505
Kathy Gornik, Marketing Director
(606) 254-9427

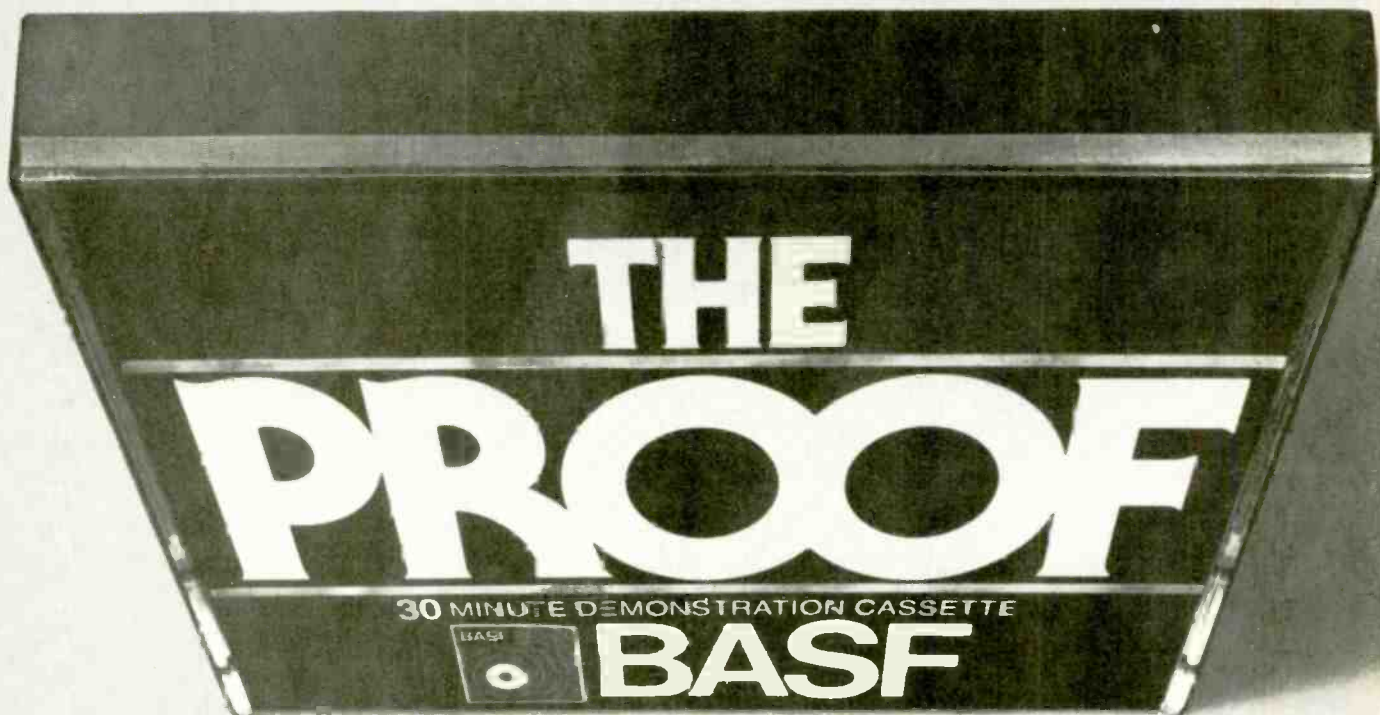
Thiel Audio is a small high fidelity loudspeaker manufacturer dedicated to making quality products with a strong emphasis on cost-effective designs. In the spring of 1976, the Model 01 bookshelf system was introduced, and now the company has three models distributed through audio specialist retailers.

The people at Thiel Audio, with backgrounds in such areas as studio and stage sound reinforcement, acoustical guitar construction, and musicianship, appreciate the subtle and precise demands of music. The Thiel speaker systems meet exacting performance standards in the realms of audible excellence as well as rigid engineering specifications.

To satisfy more completely a broader range of performance characteristics in our speakers, innovative engineering approaches are developed, circumventing limitations that are inherent in conventional designs. For example, electronic equalization is employed to achieve deep bass response without compromising efficiency, two characteristics that are mutually exclusive in conventionally designed systems. Another very important engineering goal is to develop designs that achieve the highest possible level of performance for the price.

To be continued

YOU'VE SEEN ALL THE CASSETTE ADS... NOW GO HEAR THE PROOF.



The Proof is a pre-recorded demonstration of sounds you've never heard. Sounds made possible because of BASF Professional Series cassettes.

The Proof is proof that BASF, the inventor of magnetic tape, has once again gone one step ahead in sound.

New, highly advanced, second generation coatings make BASF Pro-Series the most sensitive recording tapes.

Pro-I's (normal bias) maximum output level is unsurpassed among ferric cassettes.

Pro-II's (chrome high bias) incredibly

advanced chrome formulation enables it to perform up to reel-to-reel specifications.

Pro-III's (ferrichrome) formulation gives superb results on all recorders, especially car stereo cassette players.

And all BASF Pro-Series cassettes have a patented Security Mechanism™ for jam-proof performance.

Sensitivity is impossible to prove on paper. But easy to prove by simply going to your audio dealer and asking for The Proof. Or, you can send for it. Either way, once you hear it we're sure you'll believe it.

TO HEAR IT IS TO BELIEVE IT™



GIVE ME THE PROOF

Send \$3.50 with this coupon to: The Proof, Box 18367, Boston, MA 02118. We'll send you The Proof Professional II C-90, \$4.99 value. Or, for a free demonstration of The Proof, bring this coupon to your audio dealer.

Name _____

Address _____

City _____ State _____ Zip _____



BASF

THE INVENTOR OF MAGNETIC TAPE

G	1		E	2	V	3	F	4	C	5	H	6		A	7	L	8		T	9	B	10	H	11		N	12			
A	13	J	14	G	15		V	16	I	17	L	18	S	19		Y	20	Z	21		V	22	F	23	S	24	E	25		
N	26	D	27	Q	28	G	29		T	30	C	31		P	32	V	33	G	34		Y	35	H	36	F	37	B	38		
R	39	S	40	C	41		A	42	Z	43	G	44	K	45		F	46		P	47	T	48		O	49	M	50			
G	51		X	52	E	53	F	54	T	55		S	56		A	57	U	58	G	59	K	60	Q	61	I	62	B	63		
C	64	L	65		G	66	F	67	N	68	W	69	Z	70	T	71		E	72	U	73	R	74	S	75	N	76			
B	77	J	78	L	79	G	80	C	81	O	82	A	83	F	84	M	85	K	86	P	87		H	88	V	89	Q	90	G	91
S	92	Y	93	K	94	W	95	C	96	Z	97		N	98	F	99		J	100	E	101	A	102	P	103	G	104	D	105	
B	106	F	107	L	108		Q	109	S	110	H	111	C	112	N	113	K	114	U	115		M	116	P	117		V	118		
A	119	X	120		S	121	Y	122	G	123	H	124	B	125	N	126	Q	127		C	128	E	129		U	130	J	131		
	V	132	Z	133	G	134	L	135		A	136	X	137	F	138		V	139	M	140	N	141	I	142		T	143			
G	144	Q	145	H	146		A	147		U	148	B	149	S	150	C	151	P	152		D	153	H	154	Q	155	J	156		
	N	157	L	158		Z	159	G	160		W	161	B	162	A	163	M	164	C	165		Y	166	F	167	V	168			
	G	169	F	170	E	171	K	172	X	173	H	174		G	175	R	176	Y	177	J	178		S	179	A	180	W	181		
O	182	I	183	F	184	V	185	H	186		L	187	G	188	Z	189		F	190	E	191	A	192	N	193	H	194	O	195	
L	196	Y	197	C	198	M	199		U	200	D	201	J	202		G	203	A	204		F	205	M	206	C	207	X	208		
G	209	B	210	E	211	Z	212		A	213	R	214		H	215	O	216	D	217	G	218	S	219	K	220	N	221			

DIRECTIONS

To solve these puzzles—and they aren't as tough as they first seem—supply as many of the Output words as you can in the numbered dashes following the Input. Unless otherwise specified in the Input, the Output consists of one English word. "Comp" means compound, or hyphenated, word.

Transfer each letter to the square in the diagram that bears the corresponding number. After only a few correct guesses you should begin to see words and phrases emerging in the diagram, which when filled in will contain a quotation related to music, recordings, or audio.

The words in the quotation are separated by darkened squares and do not necessarily end at the end of a row.

Try to guess at these words and transfer each newly decoded letter back to its appropriate dash in the Output. This will supply you with further clues.

A final clue: The source of the quotation—the author and his work—will be spelled out by the first letters in Output, reading down.

The answer to HiFi-Croctic No. 42 will appear in next month's issue of HIGH FIDELITY.

INPUT	OUTPUT	INPUT	OUTPUT
A Italian conductor (1892-1967) (full name)	42 13 57 192 180 204 102 83 163 147 213 7 136 119	M See Word I	206 164 85 50 199 140 116
B Brand of loudspeaker	125 10 38 77 210 149 162 186 63 106	N Writer of popular songs "Around the World" (full name)	68 113 141 12 98 76 221 157 193 126 26
C Italian soprano Butterfly and Turandot on Angel (full name)	81 5 31 64 41 198 207 165 151 128 112 96	O Alvin on Red Seal's Pacific Overtures	82 49 195
D Cripples (slang)	105 27 217 153 201	P Squealed	152 47 117 32 103 87
E Bach keyboard composition	25 101 53 211 2 171 191 129 72	Q After The, Johann Strauss operetta (2 wds)	127 216 182 61 160 109 145 155 28 90
F Offenbach opera (3 Fr wds)	190 167 4 170 23 37 67 99 205 184 46 54 84 107 138	R American composer (b 1923) Hera Hung from the Sky	39 74 176 214
G Book by Irving Kolodin (3 wds)	123 144 169 1 29 51 80 104 209 188 59 175 44 15 134 66 203 91 34 218	S Czech composer (1854-1928) Taras Euiba (full name)	24 75 219 40 150 56 121 110 179 92 19
H American composer (1901-74) Delusion of the Fury on Columbia (full name)	215 154 6 194 11 111 36 174 146 88 124	T After The and with Word V. Giannini opera recorded by CRI	143 9 48 30 55 71
I With Word M. German opera composer (1810-49) Merry Wives of Windsor	183 62 142 17	U Sang without articulating	58 200 148 115 73 130
J French conductor (1875-1964), director of Boston Symphony before Koussevitzky	14 131 178 156 202 100 78	V See Word T (3 wds)	89 139 16 118 185 168 33 22 3 132
K Nightingale (Jenny Lind)	114 45 86 220 60 94 172	W "Mi chiamano	161 95 181 69
L E.g. c-g (2 wds)	18 79 108 65 187 196 158 8	X "For we like	120 137 173 52 208
		Y 15th century Netherlands composer Missa sub tuum praesidium	122 35 93 177 197 166 20
		Z Donna Anna's aria in last act of Don Giovanni (3 ll wds)	70 21 97 159 43 212 133 189

Who says you can't afford a moving coil cartridge?

Two things are quite clear: a moving coil cartridge reproduces music more accurately than any other cartridge design; Ortofon, the developer of the design, makes the finest moving coil cartridges in the world.

But a moving coil cartridge represents the tip of an expensive music system. For one thing, the coils have to be painstakingly wound under a microscope. For another, its low output, which pays dividends in high performance, requires a transformer to boost the signal (unless your receiver already has provision for a moving coil cartridge).

So the moving coil cartridge is the *best* way to get the most out of your records. But expensive.

Best? Yes.

Expensive? No longer.

The MC10 Moving Coil Cartridge

Since 1948, when Ortofon invented the moving coil cartridge, the company has been seeking ways to improve performance and make it available to more and more listeners. The new MC10 is a major step forward in both of these areas.

Construction

The new cantilever in the MC10 is constructed of a special alloy, chosen for rigidity and low mass. With its tiny super-polished elliptical diamond, you get very low tip mass and its many benefits: excellent tracking, easy handling

of transients and minimal record wear. Gold plated terminal pins eliminate the possibility of corrosion. Solderless pressfit contacts secure internal wire contact to the pin shells. In short, everything has been done to make the MC10 a high performance cartridge. What makes it affordable, is that new and artful methods of production have made the MC10 easier and faster to produce.

The Affordable Combination

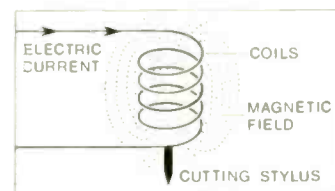
The best moving coil cartridges require that the signal be boosted before entering your receiver. If your receiver has no provision for a moving coil cartridge, we suggest that you consider the STM72. It's a double-shielded transformer designed to function beautifully in tandem with the MC10.

The good news is that the price of either or both of these Ortofon products makes moving coil performance available to many more music lovers who've had to satisfy their desire for exquisite musical performance with a less accurate cartridge.

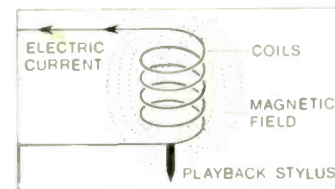
Write to us. We'll forward full information about the MC10 and STM72. Better yet. Visit your Ortofon dealer with your favorite record. You'll hear qualities in it that will make you value that recording more than ever. You'll also learn that you *can* afford a moving coil cartridge.

THE MOVING COIL PRINCIPLE

All cutterheads use a moving coil system to inscribe music onto a master record. The moving coil playback cartridge "extracts" music in the same way. This is one reason that the moving coil design reproduces musical sound with unparalleled accuracy.



CUTTERHEAD: an electrical current is run through a coil of wire which is within a magnetic field. This current (actually the material to be recorded) creates movement in the coils which, in turn, set the cutting stylus into the intricate motions that cut the remarkably complex record groove.



PLAYBACK CARTRIDGE: the stylus traces the undulations of the record groove moving up and down and side to side. That motion is transmitted to coils located within a magnetic field. This generates an electrical current (carrying the program material) which is now ready to be amplified.

ortofon

122 Dupont Street, Plainview, New York 11803



"EVERY RECORD WE PLAY ON WPLJ-FM OWES ITS LONGER LIFE TO SOUND GUARD."

Bob Deitch, Assistant Chief Engineer, WABC-AM and WPLJ-FM, New York City

"Controlling the quality of sound on both WABC-AM and WPLJ-FM. That's my job.

"And on FM, all of our music is on records. And a record's life on the air is about a week. That is, it used to be.

"With Sound Guard, it can be months. Because the protection it gives against our normal wear is extraordinary. That's why, after making our own tests, we now preserve the fidelity of every record with Sound Guard."

As Sound Guard® preservative works for WPLJ-FM in New York, it can work for you. On your favorite LP's. Even 78's. And indefinitely, with repeated use. Just spray it on. Buff it in. And a microscopically thin, dry film protects the sound of your records against the dust and static that wear them out.

Like all our products, Sound Guard preservative is sold in audio and record stores. Try it. It's worth hearing.

Sound Guard® keeps your good sounds sounding good.



Sound Guard preservative—Sound Guard™ cleaner—
Sound Guard™ Total Record Care System.
Sound Guard is Ball Corporation's registered trademark.
Copyright © Ball Corporation, 1979, Muncie, IN 47302





James Levine advises his Otello

An Otello to Challenge the Best

Levine's RCA recording claims a top spot, though Solti's London set has its points—and Turnabout offers Furtwängler as Verdian.

by David Hamilton

AS WELL AS a great opera, Verdi's *Otello* is (along with the subsequent *Falstaff*) arguably the most remarkable piece of orchestral writing ever penned by an Italian composer. There are the obviously spectacular features, of course: the organ pedal (on three adjacent semitones) that persists through the opening scene; the flashy string writing, like the beating of rain and the crashing of waves, that depicts the storm; the dancing strings and skirling winds over which the Cassio/Jago/Otello trio in Act III is played; the massive scales in octaves that drive Otello's fury ("A terra! e piangi!").

There are subtler inspirations as well: the quartet of solo cellos introducing the love duet; the obbligato of violins in repeated-note octaves that suffuses the start of the Desdemona/Otello scene in the second act with a

special luminescence; the all-woodwind scoring of the fourth-act prelude, three unison flutes in their throatiest register replying to the English horn's plaintive melody; the contrast of the wind-dominated "Salce" with the strings-only "Ave Maria"—and then the terrifying plunge to the lowest E of the double basses as Otello enters. It's a score full of technical know-how; the more Verdi learned about the orchestra, the more adventurous his imagination became, and the sheer technical proficiency of *Otello*—in details such as the violins alternating arco and pizzicato near the end of the "Fuoco di gioia" chorus—is a constant source of wonder.

Yet one would be hard put to find another opera (*Falstaff* again the obvious exception) in which sound and substance are so inextricably related. This orches-



RCA's principals during a coffee break: Sherrill Milnes, Jean Kraft, P acido Domingo, and Renata Scottò.

Clive Barcia

tration is no mere clothing for thematic ideas; one feels that many of these must have sprung into Verdi's brain fully garbed. Take the opening chord: Not merely a sustained sonority, it quickly dissolves into distinctive syncopations in the brass. Long after the storm has gone, this pulsing on the off-beats comes to represent Otello's internal tempest; we hear it first gently throbbing in premonition during the love duet, as if in warning ("I fear that such a moment will not be granted me again"). Beginning at "*Miseria mia!*" in the second act, it is rarely absent from his music.

The role of the orchestra plays in *Otello* is very much on my mind because it is so brilliantly realized by James Levine and the National Philharmonic Orchestra in RCA's new recording. I don't mean simply the matter of getting the notes (though that is certainly done to a fare-thee-well), but also such things as the way those syncopations "rub against" Levine's firm, forward-moving beat, as if they had a life of their own. They are always a palpable rhythmic event, no routine pattern. They sound fresh and significant in unexpected places, too: I don't recall ever before hearing them pulse so richly and vibrantly in the horns during the recapitulation of the vengeance duet, for example.

Making everything on the page sound is clearly one goal of Levine's conducting, and making it mean something is another: both are realized with remarkable consistency. I admire, too, the specificity of orchestral color, the way timbres are more vividly and sharply realized than in most performances: the lustrous vibrato of the cellos at the start of the love duet, or the many varieties of string staccato, differentiating the percussive pounding of the storm (some of this played rather louder than Verdi's dynamic, I am afraid) from the seething rush in Otello's mind (after "*Ora e per sempre addio!*").

Such matters spring into higher relief in juxtaposition with Georg Solti's recording, for he too has a fine or-

chestra and they play the score very well—but it hardly ever springs to the ear with as much character as in Levine's performance. Or with as much brio either, for the bounding vigor of Levine's rhythm, its flexibility of tension and relaxation, is not ever matched by the steady, underarticulated tread of Solti's beat (which, though marginally faster in some passages, never sounds as energetic). This is another of those curiously uninvolved performances Solti has been giving in recent years; everything is shipshape, but somehow the guts are missing.

In this respect London's recording faithfully mirrors the Paris Opera production heard in New York and Washington in 1976, with which it shares conductor and several singers (while fortunately improving on the orchestral playing and sparing us the eccentric sets). Margaret Price is a vocally accomplished Desdemona; her sound is even, firm, and perfectly controlled. She's lovely to hear, but I wish she seemed more involved in Desdemona's plight.

Carlo Cossutta surprised many people; as a colleague said, "I didn't know he had an Otello in him" (he was previously known as a soloist in Karajan's Verdi Requiem recording and an uncomfortable Pollione at the Met). He certainly does have an Otello in him; though the voice is serviceable rather than clarion, his intelligence and intensity are decidedly involving. Similar virtues do not enable Gabriel Bacquier to overcome his vocal limitations: too many ugly sounds and strained emphases now compromise his work as Jago. The rest of the cast is strong, and so is the choral work.

Smoothly registered though this performance is, I miss the presence and impact of London's earlier Solti effort under Karajan (OSA 1324). By way of sound effects, we hear the clinking of glasses in the Brindisi; to my relief, that "realism" does not extend to the smacking of lips when Verdi indicates that Otello should kiss Desdemona.

The RCA set, of course, calls to mind live performances conducted by Levine, at the Metropolitan Opera. In this case, however, I have regrets about some of the substitutions. Since the Met orchestra has now reached an extraordinary level of expertise—and particularly in this score—it seems a shame that it could not take part in the recording. And I'm especially sorry that Cornell MacNeil will probably not now have a chance to record Jago in the studio. Though his recent performances in the theater have been uneven, for reasons of health and stamina, he appears to have been Levine's Jago of choice, and with reason. At its best the MacNeil voice is still powerful and open in sound, and he's the only modern baritone I know who can really articulate all the small but significant characterizing grace notes and similar finesses that Verdi asks for. (Have you ever heard anyone else really sing the little appoggiatura on the middle syllable of "tracanna" in the Brindisi?)

Sherrill Milnes can't match that, but he does bring plenty of force, albeit a somewhat rough tone, to the role. He's vocally enough of a presence to carry weight in the drama, come hell or high water; at the same time, he never defines an individual as much as a type of generalized nasty baritone.

This lack of "face," of personal specificity, is also characteristic of Plácido Domingo's splendidly sung Otello. We aren't accustomed to such vocal plenitude in this part, and we would be churlish to undervalue it. Domingo is tonally glamorous and musically accurate—either of these an uncommon accomplishment, and even rarer in combination. He's also obviously sincere and intense—but that good will and fervor hasn't yet been translated into the kind of imaginative verbal-musical detail that individualizes a character. Otello relies on declamation more than any other Verdi tenor role, and our expectations are very high in this regard, for many vocally limited Otellos in the past have worked hard to make their mark in terms of the eloquence with which they read the lines. Strikingly, a rare lapse from Domingo's usual accuracy is his departure from the written pitches in the third-act monologue—the point where Martinelli made one of his greatest effects by vividly colored enunciation of Verdi's specified monotone.

The relative neutrality of these two principals certainly affects the character of the RCA performance. The first act is as good as any I have ever heard, partly because the principals don't matter here as much as they do later: the conflicts haven't really begun, the undercurrents aren't flowing yet. The main thread lies in the hands of the excellent chorus and orchestra, and Domingo's pliant and sensuous tone is certainly no disadvantage in the concluding love duet.

Renata Scotto sings with great distinction, if with the now expectable hardness on a few high notes. She is a passionate, very Italian Desdemona; through the second and third acts, she, more than the others, focuses the drama at a personal level, and in the fourth act she and Levine weave a spell that sustains the performance to the end. The supporting cast includes such Met stalwarts as Jean Kraft (Emilia) and Paul Plishka (Lodovico); even if Levine couldn't bring his Met orchestra to London, these skilled hands were worth taking along.

The RCA recording, then, preserves a performance of considerable stature. Not quite as fine, I think, as some Levine has directed in the theater, it is recognizably in

the same class—and, taken all in all, as far as recordings are concerned, that's in the same class as the Toscanini (RCA LM 6107) and Karajan/Vienna sets. Next to these, the Solti set lacks commitment; like the Serafin and Barbirolli recordings (RCA Gold Seal AGL 3-1969 and Angel SCL 3742, respectively), it has features of genuine appeal but also serious drawbacks (as does Karajan/Berlin, Angel SCLX 3809, with its unwarranted cuts in the score).

Furtwängler's 1951 Salzburg performance, issued by Turnabout in a fashion parallel to the Callas recordings I discussed last month, is interesting as his only known recording of Verdi. It's remarkably competent and idiomatic, but not a source of much pleasure. At least on this particular evening, a variety of mishaps came to pass: e.g., at two crucial points in Act I (Jago's "Roderigo, beviam!" and Montano's entrance after the Brindisi), a singer lets the tempo continuity lapse badly. Little of the singing is more than serviceable, and there's a good deal of German-accented Italian. The sound is basically pretty clean and clear AM quality, but Turnabout has managed to get only Acts I and III in pitch. The side breaks are novel and generally disastrous. (RCA and London make conventional and acceptable choices in this regard.)

Both Furtwängler and Solti raise a textual problem: At the cadence of Desdemona's "Quando narravi" speech in the love duet, recent Ricordi scores show an unusual reading of the vocal line, ascending to an F rather than to the E familiar from most modern recordings. Curiously, virtually all pre-1940 records of the duet used this unusual reading, but after that it pretty well disappeared—the Furtwängler performance is the last occurrence of it I can trace until Solti's recording. Yet the earliest scores I have been able to examine all show the familiar (and more plausible) reading.

The ballet music is (quite correctly) omitted in all three of these recordings. The Turnabout set includes no libretto: RCA and London reprint their familiar versions (both translated, with minor differences, by Peggie Cochrane). Considering the speed with which the RCA set must have been edited (the sessions took place in August, and discs were in the stores by November), it's remarkably free of flaws, but two different sets had bad grinding noises during the chords preceding the third-act ensemble.

VERDI: Otello.

	(1)	(2)	(3)
Desdemona	Renata Scotto (s)	Margaret Price (s)	Dragica Martinis (s)
Emilia	Jean Kraft (ms)	Jane Berbie (ms)	Sieglinde Wagner (ms)
Otello	Plácido Domingo (t)	Carlo Cossutta (t)	Ramon Vinay (t)
Cassio	Frank Little (t)	Petr Dvorsky (t)	Anton Dermota (t)
Roderigo	Paul Crook (t)	Kurt Equiluz (t)	August Jaresch (t)
Jago	Sherrill Milnes (b)	Gabriel Bacquer (b)	Paul Schoeffler (b)
A Herald	Malcolm King (bs)	Hans Helm (b)	Franz Bierbach (b)
Lodovico	Paul Plishka (bs)	Kurt Moll (bs)	Josef Grendl (bs)
Montano	Malcolm King (bs)	Stafford Dean (bs)	Georg Monthy (bs)

- (1) Ambrosian Opera Chorus and Boys Chorus, National Philharmonic Orchestra, James Levine, cond. [Richard Mohr, prod.] RCA RED SEAL CRL 3-2951, \$26.98 (three discs, automatic sequence). Tape: ●● CRK 3-2951, \$26.98.
- (2) Vienna Choir Boys, Vienna State Opera Chorus, Vienna Philharmonic Orchestra, Georg Solti, cond. [Ray Minshull, prod.] LONDON OSA 13130, \$23.94 (three discs, automatic sequence). Tape: ●● OSA5 13130, \$23.95.
- (3) Vienna State Opera Chorus, Vienna Philharmonic Orchestra, Wilhelm Furtwängler, cond. TURNABOUT THS 65120/2, \$14.94 (three discs, mono, manual sequence) [recorded in performance, August 7, 1951].

Beethoven Piano Sonatas by Three Specialists



Photos by Clive Barba

Maurizio Pollini's late sonatas, Alfred Brendel's now completed cycle, and Bruce Hungerford's final Beethoven disc form a study in contrasts.

by Harris Goldsmith

INTEGRAL RECORDINGS of the Beethoven piano sonatas are no longer the rarity they once were: still, the project is a considerably more ambitious undertaking than the symphonies or the string quartets, and Alfred Brendel is only the second pianist, after Wilhelm Kempff, to accomplish it twice. (The octogenarian Wilhelm Backhaus died one sonata—the *Hammerklavier*—short of his second cycle.) Brendel's remake began appearing as single discs in the early Seventies, and just over half the sonatas have been released (and reviewed) in that form, with the balance scheduled to appear coupled as follows: Nos. 12 and 16; Nos. 3 and 11; Nos. 2 and 15; Nos. 1, 20, and 26; Nos. 4 and 5; Nos. 13, 17, and 22. The set follows the sequencing of the single discs; the advantage to purchasers is that its thirteen discs are offered at the price of nine.

A project of this scope, realized over nearly a decade, necessarily displays some inconsistencies. This is especially the case here, since Brendel seems to have undergone changes of several sorts during this period. In terms of career growth, the Austrian-born artist was making the transition to international celebrity; when he began his Philips series, he had a group of ardent admirers, particularly in London musical circles, but he had yet to gain general wholehearted acceptance. It is sometimes difficult to separate career growth from artistic growth, and the sense of confidence and well being produced by success in the first can spur the second.

Did this happen with Brendel? For whatever reason, the earlier Philips Beethoven performances, though better recorded than the Vox ones, were musically similar—if anything, slightly more fustian and exaggerated. Some of the less admirable features of the older recordings remained, such as the occasional cosmetic daintiness and the more than occasional pinginess of tone (which could no longer be blamed on the unflattering Vox sonics). The more recent installments, however, give evidence of a consistent darkening and toughening

of Brendel's approach—all to the good for Beethoven, particularly as delicacy is not slighted when called for.

Although I listened to the sonatas in numerical order, without noting respective recording vintage, I discovered afterward that I did tend to favor the most recent performances, and I am inclined to regret that Brendel began his re-recording with some of the very works that would have most profited from his evolution, most notably the *Hammerklavier*. At times sequential listening produced a startling juxtaposition of old and new: The prim and petite *Appassionata*, first released in 1971, makes the work sound altogether slighter and more diminutive than its immediate predecessor, Op. 54 (often considered one of the smaller sonatas!), which Brendel plays with granitic weight and imposing force.

There is also greater directness in Brendel's later performances, although they are not free of annoying tinkering: His toying with tempo in the second theme of Op. 10, No. 1's finale anticipates, and therefore detracts from, Beethoven's variant in the coda, where it is marked both *ritardando* and *calando*; in the finale of Op. 31, No. 2, the mordents of bars 43–46 and 271–74 are executed before the beat, giving these passages an affected-sounding rhythmic dislocation. Yet even the idiosyncrasies now appear to emanate from a stronger basic pulse, and there is a reposeful spontaneity rather than the former pickiness. I particularly relished the performances of Op. 7 and Op. 31, No. 1, both of which sound as if Brendel were thoroughly enjoying himself. Op. 31, No. 2, that third-movement quibble aside, is also first-class: full of breadth, drama, and lyricism, with welcome attention to such often overlooked matters as the angular expression marks in the Adagio at bars 25–26 and 69–70. The little G major Sonata, Op. 49, No. 2, gets a surprisingly robust treatment. In fact, the only disappointments among the newer performances are Op. 26, which is beautifully delineated rhythmically but emotionally remote, especially in the outer movements;

the *Lebewohl*, where Brendel's insistence on "correct" rhythm results in foursquare stolidity; and Op. 22, which is tonally unlovely and lacks the engaging lilt of the Serkin recording or the mono Kempff.

Space does not allow a detailed reassessment of the earlier releases, but then, my reactions did not change all that much. The performances of the *Waldstein*, Op. 110, and the *Andante favori*—happily contained on one disc (6500 762 in separate form)—still seem to me of distinction: structural, sculpted playing of exceptional sensibility and refinement.

A few generalizations can be made about the cycle. In the matter of repeats, Brendel takes most but not all, tending to bypass *da capo* ones (the Menuetto of Op. 31, No. 3; the scherzo of Op. 110), even when they are clearly called for by the composer. He is also inconsistent in textual adherence, more inclined to purism in the keyboard's upper reaches than in the bass; he never alters treble passages to contain notes not included on the keyboard of Beethoven's time but regularly amplifies by putting octaves at the bottom (e.g., the beginning of the first-movement repeat in the *Hammerklavier*). Brendel's tone is admirably transparent from pianissimo to mezzo-forte but generally turns metallic and bodiless at forte, although some of the more recent recordings are attractive—indeed, the Adagio of Op. 7 is gloriously rounded and seductive. And the disc-processing, at least on my copy, is remarkable even by Philips standards: twenty-six sides with scarcely a click or a thump.

If Brendel's tone often appears incongruous with the prevailing Romanticism of his approach, Maurizio Pollini's purposeful bleakness and icy linearity—as heard in his DG set of the last five Beethoven sonatas—are in perfect harmony with his direct, modernistic style. I, for one, find it easier to adjust to him because his pianistic method is more orthodox than Brendel's. One crucial difference is that Pollini's legato is, more often than not, produced in the usual manner—with the fingers—whereas Brendel frequently relies on an overlay of sustaining pedal. Passages with massive chords are therefore likely to sound more focused and solid as Pollini plays them—a decided plus in the *Hammerklavier*, the first movement of Op. 111, and the second of Op. 101.

Heard alongside Brendel's unusually accomplished playing, Pollini's superhuman finish and digital mastery become all the more miraculous. The fugal finale of the *Hammerklavier* and the chains of trills in Op. 111's final pages, negotiated with unbroken limpid evenness, seem less like piano playing as we know it than a theoretical paragon. Precisely because of Pollini's Olympian detachment and controlled perfection, some listeners may well imagine that the playing is soulless. I disagree.

The *Hammerklavier*, played at tempos considerably slower than Beethoven's controversial metronome markings (this is, incidentally, the only one of the sonatas for which such markings exist), nevertheless succeeds in conveying the power and stride implicit in those indications; the long Adagio is wonderfully sustained. The variation movement of Op. 111, played with obvious but never unctuous spiritual devotion, provides the perfect foil for Pollini's pithy, knotted muscularity in the sonata's opening movement. Pollini's rhythm, moreover, is solidly anchored but actually quite flexible: Phrases are tapered with a grace that never calls attention to itself.

I like the recording of Op. 101 far better than the performance Pollini gave at Carnegie Hall last season: There is more weight and stronger bass; the clipped, alert articulation sounds less abrupt. On the other hand, in concert Opp. 109 and 110 seemed to carry his rarefied approach farther than do the recordings, made a few years ago. While I much admire the basic lucidity and shape of the DG readings, I found the concert renditions—in particular the fast, symmetrical account of Op. 110's first movement—more robust and communicative. (The closeness of DG's sound, as opposed to the Carnegie Hall balcony, may be a factor.) But everything considered, this is an extraordinary set.

Readers are probably aware of the tragic death of Bruce Hungerford in a January 1977 automobile accident. Ten sonatas remained unrecorded in his Vanguard Beethoven cycle, which thus joins the similarly incomplete cycles of Giesecking and Solomon; the newly issued disc containing Op. 31, No. 3, and both of the Op. 14 sonatas is the last we will be hearing of Hungerford's Beethoven, unless some of the missing works can be retrieved from tapes of live performances.

Perhaps it is fitting that Hungerford's last words on the subject should come in these works, for in many ways the restrained, undramatic, but solid merit of these sonatas summarizes the quintessential features of his Beethoven. His style was midway between Pollini's austerity and Brendel's editorializing: In its solid seriousness, periodically enlivened by vehement excitability, it often recalls Schnabel's way with this music. The central variation movement of Op. 14, No. 2, is given massive breadth without detracting from its implied whimsy. Op. 14, No. 1, gets an appropriately ascetic reading (without the *ritardando* that Brendel imposes just before the *subito forte* in the first-movement recapitulation). Perhaps the first three movements of the high-spirited Op. 31, No. 3, sound a bit sober alongside Brendel's unusually volatile performance, but the vigor of Hungerford's finale (taken at a true *Presto con fuoco*, but avoiding Schnabel's messy scrambling) completely wins me over.

Vanguard's colorful reproduction suggests the tasteful application of echo to an originally close, unreverberant sound. But the bass line is impactful enough, and the disc is highly recommended.

BEETHOVEN: Sonatas for Piano (32). Alfred Brendel, piano. PHILIPS 6768 004, \$80.82 (thirteen discs). Tape: ●● 7699 080, \$80.82 (nine cassettes).

Sonatas: No. 1, in F minor, Op. 2, No. 1; No. 2, in A, Op. 2, No. 2; No. 3, in C, Op. 2, No. 3; No. 4, in E flat, Op. 7; No. 5, in C minor, Op. 10, No. 1; No. 6, in F, Op. 10, No. 2; No. 7, in D, Op. 10, No. 3; No. 8, in G minor, Op. 13 (*Pathétique*); No. 9, in E, Op. 14, No. 1; No. 10, in G, Op. 14, No. 2; No. 11, in B flat, Op. 22; No. 12, in A flat, Op. 26; No. 13, in E flat, Op. 27, No. 1; No. 14, in C sharp minor, Op. 27, No. 2 (*Moonlight*); No. 15, in D, Op. 28; No. 16, in G, Op. 31, No. 1; No. 17, in D minor, Op. 31, No. 2 (*Tempest*); No. 18, in E flat, Op. 31, No. 3; No. 19, in G minor, Op. 49, No. 1; No. 20, in G, Op. 49, No. 2; No. 21, in C, Op. 53 (*Waldstein*); No. 22, in F, Op. 54; No. 23, in F minor, Op. 57 (*Appassionata*); No. 24, in F sharp, Op. 78; No. 25, in G, Op. 79; No. 26, in E flat, Op. 81a (*Das Lebewohl*); No. 27, in E minor, Op. 90; No. 28, in A, Op. 101; No. 29, in B flat, Op. 106 (*Hammerklavier*); No. 30, in E, Op. 109; No. 31, in A flat, Op. 110; No. 32, in C minor, Op. 111. *Andante favori*, in F, WoO. 57. [Nos. 6–10, 14, 18, 19, 21, 23–25, 27–32, and *Andante favori* from various originals. 1972–77.]

BEETHOVEN: Sonatas for Piano, Nos. 28–32. Maurizio Pollini, piano. [Rainer Brock, prod.] DEUTSCHE GRAMMOPHON 2709 072, \$26.94 (three discs, manual sequence).

Sonatas: No. 28, in A, Op. 101; No. 29, in B flat, Op. 106 (*Hammerklavier*); No. 30, in E, Op. 109; No. 31, in A flat, Op. 110; No. 32, in C minor, Op. 111. [Nos. 30–31 from 2530 645, 1976.]

BEETHOVEN: Sonatas for Piano: No. 9, in E, Op. 14, No. 1; No. 10, in G, Op. 14, No. 2; No. 18, in E flat, Op. 31, No. 3. Bruce Hungerford, piano. [Robert G. Lurie, prod.] VANGUARD VSD 71252, \$7.98.



Silence...is where sound begins.

From the moment you begin using the Nakamichi 580, you'll know it's no ordinary cassette deck.

The transport doesn't make distracting noises because there are no solenoids. A high-speed cueing system makes program location a breeze. A unique "Direct Flux" erase head wipes the tape clean like no other erase head ever made.

And modulation noise is incredibly low, thanks to an asymmetrical "Diffused Resonance" tape-drive mechanism.

But it's silence that makes the 580 different. It doesn't sound like a cassette deck. It doesn't sound like anything...except what you originally recorded. You hear the music, not the machine.

If you find the 580 uncommon, you'll be similarly impressed by the companion 530 Receiver—the performance of Nakamichi's highly acclaimed separates at a fraction of the cost, *plus* motorized auto-tuning and station memory presets.

Write for more information: 1101 Colorado Avenue,
Santa Monica, California 90401.



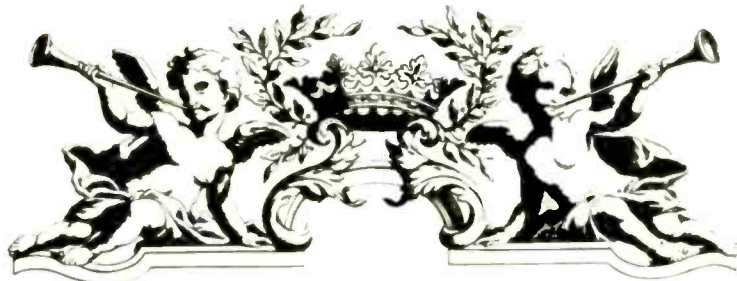
 **Nakamichi**

Products of unusual creativity and competence...

reviewed by

SCOTT CANTRELL.
ABRAM CHIPMAN
R. D. DARRELL
PETER G. DAVIS
ROBERT FIEDEL
SHIRLEY FLEMING
ALFRED FRANKENSTEIN
KENNETH FURIE
HARRIS GOLDSMITH
DAVID HAMILTON
DALE S. HARRIS

Classical



PHILIP HART
PAUL HENRY LANG
IRVING LOWENS
ROBERT C. MARSH
ROBERT P. MORGAN
JEREMY NOBLE
CONRAD L. OSBORNE
ANDREW PORTER
H. C. ROBBINS LANDON
PATRICK J. SMITH
PAUL A. SNOOK
SUSAN THIEMANN SOMMER

BACH: Mass in B minor, S. 232. Margaret Marshall, soprano; Janet Baker, mezzo; Robert Tear, tenor; Samuel Ramey, bass; Nicholas Kraemer, organ; Academy and Chorus of St. Martin-in-the-Fields, Neville Marriner, cond. PHILIPS 6769 002, \$26.94 (three discs, manual sequence). Tape: ●● 7699 076, \$17.95.

Comparison:
Harnoncourt/Vienna Concentus Musicus Tel. 36.35019

Neville Marriner's recording of Handel's *Messiah* (Argo D18D 3, April 1977), although problematic in a number of ways, left no doubt about the admirable tone quality, balance, and virtuosity of the new Chorus of St. Martin-in-the-Fields, but I'm afraid that the B minor Mass is a disappointment. To begin with, in place of the nicely focused tone that I found so gratifying on the Argo recording, Philips has captured a dull and murky choral sound that often turns Bach's already dense scoring into brown paste. What's worse, whole sections of the choir—most egregiously the tenors—completely disappear in the murk for long stretches, with most unhappy implications for the counterpoint.

The second problem has to do with the soloists. We are, it is true, treated to some of the finest singing I can remember from Janet Baker, but still I find the hard edge to her voice unpleasant and at the bottom of her range (which we hear all too clearly in the "Et in unum Dominum" duet in the Credo) the sound is indisputably ugly. Robert Tear, whose voice I have enjoyed elsewhere, is out of his element here: He delivers everything with more than a soupçon of nineteenth-century histrionics, and his struggles at high notes are distracting. Bass Samuel Ramey produces a reasonably pleasant sound (reminiscent of John Shirley-Quirk at his best) in the middle of his range, but here again the tone quality is ill suited to the music at hand and the effect is hardly enhanced by thin bottom notes and forced top ones. Indeed, only soprano Margaret Marshall manages to produce consistently acceptable results.

One could perhaps overlook some of these flaws if Marriner had a really compelling conception of the Mass, but I'm not convinced that he does. My chief reservation is that, while fast movements are generally taken quite briskly—as they should be—the slow ones tend to be too slow, even ponderous. Such is certainly the case in the *Agnus Dei*, which at Marriner's plodding

tempo is transformed from a petition for mercy into a funereal lament, and the "Qui tollis" in the Gloria is similarly moribund. As a result of this tendency toward overdone slow movements, moreover, tempo contrasts are sometimes exaggerated and applied in illogical places. The disconcerting speedup at the "Christe," for example, would have been unnecessary had Marriner allowed a bit more movement (which would have been desirable in any case) in the first Kyrie.

Of stylistic problems there are fewer than might have been expected. I noticed some missing cadential trills, and elsewhere long trills tend to be too fast and mechanical. In the "Laudamus te," Baker sings little slides before the beat rather than the on-the-beat trills indicated by Bach. On the positive side, though, someone has referred to Bach's copy of the flute part in the "Domine Deus" duet and the Lombardic *inégale* provides a welcome variation from the equal sixteenth notes of the full score.

The instrumental playing here is of a very high standard, and Marriner has done a remarkable job of overcoming the problems of balance that often bedevil renditions with modern instruments. Still, it is to the Nikolaus Harnoncourt performance—warts and all—that I return, with renewed respect for its uncanny freshness. This recording, now ten years old, captured the Vienna players before they had fully mastered their period instruments (especially the winds), and the choral sound is sometimes a bit crude, but these weaknesses are compensated by some truly distinguished solo singing—especially from Helen Watts and Max van Egmond—and by some revelatory interpretive insights. Marriner is probably a good second choice, but for my money the

competition cannot really be said to be close. S.C.

BACH: Masses: in F, S. 233; in A, S. 234; in G minor, S. 235; in G, S. 236. Wendy Eathorne, soprano; Paul Esswood, countertenor; Philip Langridge and Neil Jenkins, tenors; Stephen Roberts, bass; Alistair Ross, organ; Richard Hickox Singers and Orchestra, Richard Hickox, cond. [Chris Hazell, prod.] ARGO ZRG 873 (S. 233-34) and ZRG 829 (S. 235-36), \$8.98 each. Tape: ●● KZRC 873 (S. 233-34 only), \$8.98.

The Kyrie and Gloria of the Catholic Ordinary were retained (under the designation *Missa*) for occasional use in the Lutheran liturgy, and, since musical settings of these two texts could be used in either denomination, it is not surprising that Bach should have been attracted by the implicit versatility of such settings. After all, he was anxious to obtain recognition in both Catholic and Protestant circles—milieus as different as the Dresden court and the Leipzig town council—so double-purpose sacred music would have seemed a profitable investment of compositional energies. In any case, Bach is known to have produced at least five *Missa* settings—one of which, composed in 1733, was later expanded into the B minor Mass.

The other four *Missae*, included on these two new Argo discs, are generally thought to have been completed around 1737, in response to a commission from Franz Anton von Sporck, a Bohemian count (and, incidentally, a Roman Catholic who hoped for a reconciliation between Catholics and Lutherans). In preparing these settings Bach drew heavily from earlier compositions (especially cantata movements) and, predictably, certain infelicities of word-setting do occur. Still, there is much beautiful and moving music here, and even moments of rare genius—notably in the Kyrie of the F major Mass.


These new performances, distinguished by well-chosen tempos and obvious care in shaping musical phrases, are commendably engaging, and the recorded sound is nothing if not vivid. Both chorus (of about twenty singers) and orchestra perform with a welcome minimum of vibrato, yielding an intimate and transparent sound admirably suited to the music. Nothing is said about "original instruments," but the silvery sound of the violin obbligato in the "Quo-

Explanation of symbols

Classical:

-  Budget
-  Historical
-  Reissue

Recorded tape:

- Open Reel
-  8-Track Cartridge
- Cassette

niam" of S. 233 suggests the use of gut strings, and elsewhere we are reminded of the real beauty of stringed instruments when played without the blunt tone and relentless throbbing that too many mindless fiddlers seem to consider de rigueur.

My only real reservations are with the soloists, and I suspect the problem here is simply that the microphones are too close. A more realistic placement might not have camouflaged Paul Esswood's big "whoops" on high notes, but it certainly would have smoothed his machine-gun vibrato (and that of soprano Wendy Eathorne), and Stephen Roberts' occasionally tenuous control might well have passed unnoticed. S.C.

BEETHOVEN: Concertos for Piano and Orchestra (5)*; Solo Piano Works. Alexis Weissenberg, piano, Berlin Philharmonic Orchestra, Herbert von Karajan, cond. [Michel Glot, prod.] ANGEL SD 3854, \$31.98 (four SQ-encoded discs, manual sequence). Tape: ●● 4X4S 3854, \$31.98.

Concertos: No. 1, in C, Op. 15; No. 2, in B flat, Op. 19; No. 3, in C minor, Op. 37; No. 4, in G, Op. 58; No. 5, in E flat, Op. 73 (*Emperor*). **Solo Piano Works:** Albumblatt in A minor, WoO 59 (*Für Elise*); Rondo a capriccio, in G, Op. 129 (*Rage over a Lost Penny*); Rondo in C, Op. 51, No. 1; Variations on an Original Theme, in C minor, WoO. 80.

Comparisons—concertos:
Fleisher, Szell/Cleveland
Gilels, Szell/Cleveland

Col. M4X 30052
Ang. SE 3731

We think nothing of accepting concerto performances in which an outstanding

soloist is prosaically, even inadequately, supported by conductor and orchestra; but if the orchestra's role in a classical concerto is equal to that of the soloist—a viewpoint I have advanced without difficulty in the past—why not accept conductor-dominated performances in which the soloist soberly furnishes the required patterns? The chemistry of the Karajan/Weissenberg collaboration shares some attributes with the Szell/Gilels (in an older Angel album), but certain factors, one of course being personal inclination, make me more tolerant of the newer performances.

It must be said at the outset that, were all other factors equal, I could more readily accept Gilels' plainness than Weissenberg's soulless bravura. Weissenberg, for all his virtuosity, is a less poised instrumentalist: His strong fingers indeed often suggest an overinked typewriter ribbon, with mordents and passagework sometimes brilliantly clear and sometimes blotchy and indistinct. But those other factors are not equal: Karajan's orchestral realizations, opulently reproduced and often seductively phrased, have far greater appeal for me than Szell's cut-and-dried work with Gilels. (Szell displayed more vigor and passion in his earlier cycle with Leon Fleisher, and those performances—despite the aging, hissy sound—are still my first recommendation for the Beethoven concertos.)

Weissenberg's subordination is emphasized by the prevailing recorded balance.

which puts the piano comfortably behind the orchestra, thereby robbing it of impact at climaxes. The previously issued *Emperor* seems to have been remastered here to approximate the sound of the more recent recordings: in any event, I miss a certain stride and cutting brilliance of the earlier version (S 37062, February 1975). In the other concertos the orchestra sounds firmer and brighter—magnificent, in fact—and the pressings are superbly quiet, a big improvement over Angel's norm.

Tempo are rather slow in the first two concertos, and the orchestra in No. 2 sounds a shade large. Weissenberg's curious speeding up for the first-movement cadenza of No. 1 (like Gilels and Gieseeking, he plays Beethoven's slighter second cadenza) suggests that he recorded that unaccompanied segment separately (before being introduced to Karajan's slower-than-usual tempo?). The composer's cadenzas are used throughout—in the first movement of No. 4 the customary one, beginning with the repeated Gs. Of the solo works, Weissenberg's surprisingly Schnabelesque account of *Rage over a Lost Penny* appeals to me more than his bloodless clangor elsewhere.

In summation, Weissenberg does some things quite nicely, but it is Karajan and the Berlin Philharmonic who save the day. H.G.

BEETHOVEN: Fidelio.

Leonore	Gundula Janowitz (s)
Marzelline	Lucia Popp (s)
Florestan	Rene Kollo (t)
Jaquino	Adolf Dallapozza (t)
Prisoners	Karl Terkal (t), Alfred Sramek (bs)
Don Fernando	Dietrich Fischer-Dieskau (b)
Don Pizarro	Hans Sotin (bs)
Rocco	Mantfred Jungwirth (bs)

Vienna State Opera Chorus, Vienna Philharmonic Orchestra, Leonard Bernstein, cond. [Hans Weber, Günther Breest, and Michael Horwath, prod.] DEUTSCHE GRAMMOPHON 2709 082, \$26.94 (three discs, manual sequence). Tape: ●● 3371 039, \$26.94.

Comparison:
Ludwig, Vickers, Klemperer/Philh. Ang. SCL 3625

Leonard Bernstein's conducting of *Fidelio* at the Vienna State Opera in January 1978 seems to have been triumphantly successful. On the evidence of the present recording, made in Vienna at that time with virtually the same cast (on disc the more marketable Dietrich Fischer-Dieskau replaces Hans Helm as the minister), it is hard to see why. Perhaps people find it easier to succumb to Bernstein's idiosyncrasies when caught up in the excitement of a live performance than when simply listening at home. Even so, I find it hard to believe that this ponderous, woefully slow account of the music could ever have proved effective in the theater.

Even poor Marzelline's aria, a light-hearted piece partly designed to provide a contrast with the more solemn music introduced into the opera at *Fidelio's* entrance, is rendered sluggish, weighty, and stilted. At the conclusion of the aria, Bernstein delivers a lethal blow to what should have been a charming little interlude by introducing a big sentimental ritard, the effect of which is to emphasize the inflated and rhetorical nature of his conception. There are big ritards, too, in the graver sections of the

Critics' Choice The most noteworthy releases reviewed recently

- BARTÓK, STRAVINSKY:** Two-Piano Works. Kontarskys. DG 2530 964, Nov.
BOYCE: Symphonies (8). Marriner. ARGO ZRG 874, Jan.
BRAHMS, SCHUMANN: Piano Works. Kubalek. CITADEL CT 6027, Nov.
BRITTEN: Various Works. Baker, Britten, et al. LONDON OS 26527, Nov.
BRUCKNER: Symphony No. 5. Karajan. DG 2707 101 (2), Jan.
DVOŘÁK: Quartets, Opp. 51, 105. Gabrieli Qt. LONDON TREASURY STS 15399, Nov.
HAYDN: Il Mondo della luna. Auger, Alva, Dorati. PHILIPS 6769 003 (4), Dec.
LECLAIR: Violin Concertos. Schroder. TELEFUNKEN 6.42180, Jan.
MAHLER: Symphony No. 4. Von Stade, Abbado. DG 2530 966, Jan.
MAHLER: Symphony No. 6. Karajan. DG 2707 106 (2), Jan.
MESSIAEN: Turangalila Symphony. Previn. ANGEL SB 3853 (2), Dec.
MOZART: Piano Sonatas, K. 280, 281, 311, 330. Zimerman. DG 2531 052, Jan.
POULENC: Organ Concerto; Concert champêtre. Preston, Previn. ANGEL S 37441, Nov.
PURCELL: Dido and Aeneas. Troyanos, Stilwell, Leppard. RCA ARL 1-3021, Dec.
STRAUSS, J. (arr. Dorati): Graduation Ball. Dorati. LONDON CS 7086, Jan.
STRAVINSKY: Pulcinella Suite, et al. Boulez. COLUMBIA M 35105, Nov.
TELEMANN: Works for Oboe. Holliger, et al. PHILIPS 9500 441 Works for Winds. Baron, Roseman, Weisberg, et al. NONESUCH H 71352, Jan.
VIVALDI: Choral Works, Vols. 1-2. Negri. PHILIPS 6700 116 (2), Nov.
WILLIAMSON: Vision of Christ-Phoenix; Symphony. Wicks. CHALFONT C77 015, Jan.
IDIL BIRET: Piano Recital. FINNADAR SR 125 (direct-to-disc), Dec.
LEONARD PENNARIO: Daydreams (Piano Recital). ANGEL S 37303, Nov.
NIGEL ROGERS: Airs de Cour: French Drinking Songs. PETERS PLE 050, Dec.
RUDOLF SERKIN: On Television (Piano Recital). COLUMBIA M2 34596 (2), Nov.
MARTIAL SINGER: French Song Recital. 1750 ARCH RECORDS 1766, Nov.
SPANISH CATHEDRAL MUSIC IN THE GOLDEN AGE. TELEFUNKEN 36.35371 (3), Dec.
FELLINI'S CASANOVA. Original film soundtrack recording. CAM SAG 9075, Jan.



Clive Barda CBS



Jacoby DG

Lucia Popp and Dietrich Fischer-Dieskau—the pluses in a variable *Fidelio*

score; at the conclusion of the canon quartet, for example, in the middle and at the end of Pizarro's aria, in the orchestral postlude to Florestan's aria. These are equally unsuccessful, for they add an element of calculation, of imposed feeling and self-consciousness, to what should sound straightforward, unimpeded, frank.

A great deal of the opera is simply too slow. An exception is the finale, whose allegro sections take on an almost manic celerity. In moments of dramatic stress, moreover, the orchestral textures become unpleasantly coarse, too insistently urgent in sound to do justice to the noble classicism of Beethoven's sensibility. For me the most egregious example of Bernstein's insensitivity to the essential nature of this music is the way he spatchcocks the ending of the *Fidelio*/Florestan duet ("O namenlose Freude") into the opening of *Leonore* No. 3 (which is in any case otiose) by omitting the timpani stroke that opens the latter. So much for the music's integrity, so much for Beethoven's musico-dramatic intentions. Bernstein's work on this occasion, in sum, is overwrought and underfelt.

Most of the singers are either below par or unsuited to their assignments. Lucia Popp is a charming Marzelline, though, and Fischer-Dieskau a dignified Don Fernando, one who delivers his noble utterances with dry tone but exemplary legato. Neither Adolf Dallapozza (Jaquino) nor Manfred Jungwirth (Rocco) is very distinguished as either a singer or a personality. Hans Sotin, the top of whose voice sounds dangerously overextended, makes a colorless Pizarro.

Rene Kollo is in stiff, ungainly voice. With what some people, I imagine, might adjudge laudable intentions, he begins Florestan's very first note, the high C of "Gott, welch' Dunkel hier!" very softly, in due course swelling it to a forte. Unfortunately, the result is extremely ugly, more like a prolonged moan than a note, and thoroughly unmoving. Gundula Janowitz, white in tone, insecure at the top (her unnerving B flat at "Tot erst sein Weib" being a case in point), and interpretively bland, is not a Leonore to cherish.

The chorus is fine, however, and the Vienna Philharmonic, whenever Bernstein permits it to, sounds beautiful. The singers are closely miked—even more absurdly so in the spoken dialogue. The libretto is trilingual (German, English, French), the accompanying articles quadrilingual (Italian is the other language). The *Fidelio* recording to get, so far as I'm concerned, is Klemperer's on Angel, with Christa Ludwig and Jon Vickers. D.S.H.

BEETHOVEN: Sonatas for Piano. For a feature review, see page 64.

BRAMHS: Songs. Janet Baker, mezzo-soprano; Cecil Aronowitz, viola; Andre Previn, piano [Suvi Raj Grubb, prod.] ANGEL S 37519, \$7.98.

Four Serious Songs, Op. 121. Vergebliches Standchen, Op. 84, No. 4. Therese, Op. 86, No. 1. Gestirte Sehnsucht, Op. 91, No. 1*. Geistliches Wiegenlied, Op. 91, No. 2*. Sapphische Ode, Op. 94, No. 4. Der Jäger, Op. 95, No. 4. Wie Melodien zieht es mir, Op. 105, No. 1. Auf dem Kirchhofe, Op. 105, No. 4. Standchen, Op. 106, No. 1. Regenerlied

In this recital, one's admiration for Janet Baker's artistry—her clear, sensitive diction, her strong feeling for the shape of a phrase, the generous commitment of her delivery—is unavoidably qualified by two significant reservations. First, a penchant on her part and Andre Previn's for slowish tempos, not only in appropriate places (the viola songs, most of the *Serious* Songs), but also much less convincingly in such songs as "Standchen," "Der Jäger," and "Vergebliches Standchen." Resisting the blandishments of cuteness in these pieces is all to the good, but not, surely, at the cost of devitalizing them altogether; the huge distensions in the last stanza of "Vergebliches Standchen" pretty nearly tear this little piece apart. Too, the total program is thus of diminished contrast and effect, thereby misrepresenting Brahms's range as a song composer.

Second, there is the singer's vocal condition. An obtrusive heat invades the voice

above the break, especially at the top of the staff, and occasionally even in the chest register (the middle C at the end of "Auf dem Kirchhofe"), giving rise to a good deal of imprecise pitching. At times the passage over the break is clumsily managed also. These problems are most evident in the strenuous music; the lighter "Therese" is altogether steadier, though it might have gone better still at a faster tempo.

Aside from his possible role in the choice of tempos, Previn is a positive presence at the piano, his dynamics particularly well judged. Angel provides texts and translations, along with some excellent commentary on the music "from notes by Bernard Jacobson"—which I take to indicate an abridgment of some sort, although there's a fair amount of blank space on the text leaflet. (Perhaps the omitted material included the desirable clue for listeners that the "new" melody in the last section of "Auf dem Kirchhofe" is certainly intended to recall the most prominent chorale in Bach's *St. Matthew Passion*.) Note that the "Regerlied" sung here is not the familiar setting of another poem of the same title, also by Klaus Groth, published as Op. 59, No. 3, but a song from the 1860s that was not published until after Brahms's death; as far as I can trace, it has not previously been recorded. D.H.

BRUCH: Eight Pieces for Clarinet, Viola, and Piano, Op. 83. **GLINKA:** Trio pathétique, in D minor Montagnana Trio (John Gales, clarinet; Caroline Worthington, cello; Delores Stevens, piano). [Heidi Lesemann and Amelia S. Haygood, prod.] DELOS DEL 25433, \$7.98.

Bruch's *Eight Pieces*, Op. 83, a mature work dating from the composer's seventy-second year, was composed with the clarinet/viola/piano combination of Mozart's K. 498 Trio and Schumann's *Fairy Tales* in mind; Glinka's early *Trio pathétique*, an 1826-27 work reflecting classical antecedents rather than the Russian nationalism familiar from the composer's later years, was conceived for clarinet, bassoon, and piano.

Both works were published in alternate versions for standard piano trio (i.e., violin, cello, and piano), and the Glinka was recorded in that form by David Oistrakh, Sergei Kusanovitch, and Lev Oborin (*WERM* attributes the arrangement performed to one Hrimaly; the Delos annotations imply the composer's own hand). It is also available in the original scoring—with period instruments on Oiseau-Lyre (DSLO 524) or with modern instruments on Musical Heritage Society (MHS 1973) and Varèse Sarabande (81003).

Strangely, the far more substantial Bruch is virtually never performed in its entirety. For some reason, Nos. 2, 6, and 7 are occasionally heard on their own—as they are on the only previous recording of this music I know, a 1967 Library of Congress performance by Harold Wright, Boris Kroyt, and Murray Perahia on Turnabout (TV 34615). My delight at finally having an integral recording is tempered by the substitution here of cello for viola; the lower-pitched instrument makes the timbre perceptibly less

dbx 128 tape copies sound better than your records



First, you play your favorite records, tapes or FM broadcasts through the expander section of our Model 128 to restore missing dynamics and reduce noise that's been robbing you of live performance realism.

Then, you preserve the dynamics of this vibrantly enhanced program by copying through the 128 noise reduction section to eliminate tape hiss normally added by copying.

Finally, you play back your taped copy through the decoder of your dbx 128 and hear music with more dynamic range and detail than you've ever heard before off any tape. Sound unbelievable? Well, it was until the dbx 128 came along. But now you can make dynamically enhanced copies that sound better than the originals, with no hiss build-up, on any open-reel, cartridge or cassette recorder.

To learn how, ask the dbxpert at your local dealer for a demonstration of the new dbx 128. For full product information and a list of demonstrating dbx 128 dealers, circle reader service number or contact:

dbx

dbx, Incorporated, 71 Chapel Street
Newton, Massachusetts 02195 • (617) 964-3210

CIRCLE 56 ON PAGE 89

supple and rapturous. (There are few actual changes in the notes—merely a few figurations shifted down an octave.)

The Wright/Kroyt/Perahia performance makes clear how much more magical the original scoring is, although the difference also has much to do with the exceptional artistry of the Turnabout musicians. The Montagnana performance is basically fine, but its No. 2 does not soar as the Turnabout version does. In the scherzando No. 7, I was surprised to find that the slightly hard-pressed Montagnana is really not much faster than Wright/Kroyt/Perahia, whose flexibility and nuance elevate hair-trigger technical virtuosity into the realm of tonal magic. But in the absence of a complete recording of the clarinet/viola/piano version, the Delos performance provides admirable proof that all eight pieces are of comparably high quality.

In the Glinka trio, one could hardly imagine a greater disparity than that between Oiseau-Lyre's honking penny-whistle clarinet, buzzing bassoon, and washboardlike antique piano and Delos' lushly intertwining modern clarinet, cello, and piano. I view the intermixing of string and wind instruments in this work suspiciously, for the tonal result comes too close to Brahms's clarinet trio: the violin/cello/piano Oistrakh Trio version at least preserves some classical rigor. For that matter, the penetrating sound of Oiseau-Lyre's Music Party—though sometimes downright raunchy and unpleasant—projects the slight substance of Glinka's phrases with a touch of melodrama missing with the Montagnana's softer-contoured tonal blend. The best solution seems to me modern clarinet, bassoon, and piano: I haven't heard the Norwegian Chamber Soloists on Varèse Sarabande, but the New American Trio on MHS is excellent.

Delos has been making big strides in capturing sound with suitable room resonance, and the pleasing ambience is abetted by clean disc surfaces. H.G.

CHOPIN: Piano Works, Vol. 3. Vladimir Ashkenazy, piano. [Richard Beswick and James Walker, prod.] LONDON CS 7030, \$7.98. Tape: ●● CS5 7030, \$7.95.

Nocturnes, Op. 55: No. 1, in F minor; No. 2, in E flat. Berceuse in D flat. Op. 57: Sonata No. 3, in B minor, Op. 58. Mazurkas, Op. 59: No. 1, in A minor; No. 2, in A flat; No. 3, in F sharp minor.

Ashkenazy's Chopin cycle continues in its sensible arrangement by vintage rather than genre, an approach that proved most fruitful with the "late" works (Opp. 60-68) gathered in Vol. 2 (CS 7022, August 1978).

In Vol. 3, the shorter pieces are especially well played. In the Berceuse, in essence a Romantic vision of the passacaglia, Ashkenazy delineates the repeated bass with just enough rigor to make structure gently insistent without straitjacketing the melodic material. In the three Op. 59 mazurkas, among the richest and most varied of the series, the interplay of rhythmic license, delicate nuance, and hints of extravagant vehemence intensifies the emotional complexity without sacrificing charm or flow. The two Op. 55 nocturnes, too, are handsomely rendered—the F minor with a par-

Receive the many benefits offered to you with a Musical Heritage Society membership, and . . .

SELECT 3 RECORDS OR CASSETTES FREE

with any
future purchase
you elect
to make.

CHOOSE FROM
ARTISTS SUCH AS

ANDRE · DE LARROCHA · OISTRAKH · RAMPAL · GILELS · ROSTROPOVICH AND MANY, MANY MORE

Just a sampling of the great artists available from our Master Catalogue of nearly 3000 recordings!

Centuries of Great Music at Your Fingertips

The Society's recordings span all periods of music . . . Medieval, Gothic, Renaissance, Baroque, Rococo, Classical, Romantic and Modern. We offer you a vast selection (nearly 3000 recordings) of works available nowhere else!

Among the exciting performances awaiting your listening pleasure are classical masterpieces by immortal composers — Mozart, Beethoven, the Bachs, Mendelssohn, Tchaikovsky, Handel and many, many more. Also available to members are works by composers who have become noteworthy due almost entirely to the Society's efforts—Pachelbel, Telemann, Fasch, Gilles . . .

Every Recording Available at Enormous Savings!

Your membership in the Musical Heritage Society offers you more immediately available recordings than any other single source!

This huge volume and our direct service (no middleman) entitle you to substantial savings on every record or cassette you purchase. Members' prices are only \$3.95 for each 33 1/3 RPM disc and \$4.95 for each Dolbyized cassette, plus postage and handling.

Enjoy the Finest Quality and Award-Winning Performances

Nowhere else will you find a collection of such vast proportions or exacting quality of performance or manufacture. More than 200 of the Society's recordings have won the GRAND PRIX DU DISQUE and other international awards of



excellence. Society recordings are selected by experts and supported by critics worldwide.

Reproduction standards are among the finest available. That's just one reason why so many of these recordings merit international awards. Another reason is sheer artistic excellence. You can build a library of these superior recordings—as a member of the Musical Heritage Society!

Join the Society Now! Your Free No-Obligation Membership Includes . . .

- A free one-year subscription to Musical

Heritage Review magazine. Issued every 3 weeks (18 times a year), this definitive publication contains the Society's latest releases along with over 1200 pages annually of news, reviews and colorful editorial coverage of great music from all periods.

There is no purchase obligation and you may discontinue the complimentary subscription at any time. As a member, two (sometimes three) 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 ten 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.

- Huge savings on every record (\$3.95) and cassette (\$4.95), plus postage and handling.
- Immediate availability from the largest selection of its kind.
- No waiting. Your order is shipped direct from our vast inventory.
- Convenient ordering with our Open Credit Account.
- Discount purchasing of the finest reproduction equipment and accessories.
- Full 30-day guarantee on every record or cassette purchased.
- A free copy of the giant Master Catalogue with your first purchase.

MEMBERSHIP APPLICATION

Receive 3 Records or Cassettes of Your Choice FREE With Any Purchase! Apply Now for Your Society Membership.

To become a member of the Musical Heritage Society, please return this completed application to us. Your membership credit account will be immediately established and . . .

■ A certificate entitling you to THREE RECORDS OR CASSETTES OF YOUR CHOICE ABSOLUTELY FREE will be sent to you along with a Sample Catalogue. Use it with your initial purchase, or save it until you've seen our Master Catalogue of nearly 3000 great recordings.

■ The first issue of your *Musical Heritage Review* subscription will be mailed to you. It will contain several selections from the Master Catalogue along with many brand new Society releases.

■ Two, sometimes three musical selections will be scheduled for you to audition—without obligation—from each issue of the *Review*. To accept these audition selections, do nothing. They will automatically be shipped to you to audition free. But if you'd prefer an alternate selection, or none at all, just return the RESPONSE FORM included in each issue of the *Review*.

OFFER STRICTLY LIMITED TO NEW SOCIETY MEMBERSHIP APPLICATIONS WITHIN THE UNITED STATES. ONLY ONE APPLICATION PER HOUSEHOLD WILL BE CONSIDERED AND ALL APPLICATIONS ARE SUBJECT TO REVIEW BEFORE MEMBERSHIP IS GRANTED.

Mail this application to:

Musical Heritage Society Dept. HF002
Musical Heritage Society Building
14 Park Road
Tinton Falls, New Jersey 07724

YES. I would like to become a member of the Musical Heritage Society.

NAME PLEASE PRINT CAREFULLY

ADDRESS

CITY STATE ZIP CODE

YOUR SIGNATURE

Enjoy the Many Society Benefits with No Purchase Obligation—Ever!

ticularly fleet accelerando conclusion, the E flat with an ascendant, cloudlike serenity.

An interpretive style that conveys Chopin's stature in shorter works tends to undermine the larger ones, and I find the B minor Sonata unsatisfying. For all Ashkenazy's probing of linear detail, he overinterprets. The rallentandos, diminuendos, and rhetorical adjustments drain the outer movements of their requisite sweep and rhythmic power.

London's sound is of the ambient large-hall variety. H.G.

DELIBES: *Sylvia*. Paris Opera Orchestra, Jean-Baptiste Mari, cond. [Gréco Casadesus, prod.] ANGEL SB 3860, \$15.98 (two SQ-encoded discs, automatic sequence). Tape: ●● 4X2S 3860, \$15.98.

Comparisons:

Ansermet/Suisse Romande (excerpts) Lon. CS 6185
Bonyngé/New Philharmonia Lon. CSA 2236
Fistoulari/London Sym. Mer SRI 77005

As with his recording of Delibes's *Coppélia* (Angel SB 3843, December 1977), Jean-Baptiste Mari's handling of *Sylvia* is dutiful but without real distinction. On the evidence of these sets and of his Pierné and Chabrier recordings, Mari strikes me as temperamentally unsuited for the qualities of grace and sprightliness that lie at the heart of such nineteenth-century (and, in the case of Pierné, early twentieth-century) French music. Tchaikovsky's enthusiastic report to Tanev after seeing *Sylvia* for the first time, in Vienna, sums up the score's essential features: "What charm, what elegance, what a wealth of rhythm and harmony!"

To hear what is missing from Mari's performance, one has only to turn to Ernest Ansermet's irresistible London disc of excerpts (coupled with excerpts, equally fine, from *Coppélia*). Ansermet, alas, did not record the entire work, but Richard Bonyngé's London performance is an excellent one, and, unlike the far from negligible Anatole Fistoulari/Mercury set, it is absolutely complete. Bonyngé puts Mari out of the running, though the Paris Opera Orchestra plays very well and Angel's engineering is big and bright.

Notes, illustrations (too small and murky, however), and an excellent full synopsis of the action are included, but no list of musical numbers. D.S.H.

DURUFLÉ: *Prelude, Adagio, and Choral Variations on "Veni, Creator," Op. 4; Suite, Op. 5*. Walter Hillsman, organ of Coventry Cathedral. [Michael Smythe, prod.] VISTA VPS 1041, \$7.98 (distributed by German News Co.).

This is said to be the first volume in a series of "Organ Music by Pupils of Paul Dukas," which raises the prospect of a stimulating juxtaposition of music by Duruflé, Messiaen, and Jehan Alain, three of the twentieth century's more notable contributors to the organ repertory.

Of these three composers, Maurice Duruflé is the least innovative (and, in quantity, the least productive), but his music does offer a rare blend of consummate



Maurice Duruflé—a rare blend of craftsmanship and beauty

craftsmanship and sheer beauty, along with a performer's understanding of the organ's expressive possibilities. Plainsong—whether actually quoted (as in the Requiem, and in the *Veni, Creator* triptych recorded here) or merely suggested by the music's pervasive modality—is at the heart of his style, although some of the more obvious external aspects are the legacy of Impressionism. The plainsong basis harks back to Duruflé's years as a chorister at Rouen Cathedral and to his studies with Charles Tournemire; the Impressionistic aspects reflect his training under Dukas and Louis Vierne and his admiration for the music of Debussy and Ravel. Fastidious craftsman that he is (and here the example of Dukas comes to mind), Duruflé has considered only a handful of his compositions worthy of publication—a pity—but the value of these works is perhaps all the greater for their scarcity.

The organ in Coventry Cathedral (built by the British firm of Harrison and Harrison in 1962) is one of the more successful, eclectic designs I've encountered, and here it manages to produce a very good approximation of the French "néo-classique" instruments for which Duruflé conceived his music. Virtually all the "authentic" sounds are here, then, and Walter Hillsman scrupulously adheres to the composer's precise registration directions. I was surprised at a few wrong notes that apparently escaped editing, and I somehow felt a need for a bit more panache, but there is no denying the sympathy and fluency of Hillsman's playing.

The recorded sound is good but distant, and the pressing is occasionally marred by distortion and miscellaneous pops and crackles. For Felix Aprahamian's sleeve notes, though, there can be nothing but praise, and the insert containing the organ's specification and a diagram of its layout (!) is a model of what such things should be.

S.C.

DVOŘÁK: *Concerto for Cello and Orchestra,*

in B minor, Op. 104. Miklós Perényi, cello; Budapest Philharmonic Orchestra, Geza Oberfrank, cond. [János Mátyás, prod.] HUNGAROTON SLPX 11866, \$7.98

DVOŘÁK: *Concerto for Cello and Orchestra,* in B minor, Op. 104. Josef Chuchro, cello; Czech Philharmonic Orchestra, Václav Neumann, cond. [Pavel Kuhn, prod.] SUPRAPHON 4 10 2075, \$8.98 (SQ-encoded disc)

R DVOŘÁK: *Concerto for Cello and Orchestra,* in B minor, Op. 104; *Silent Woods,* Op. 68; *Rondo for Cello and Orchestra,* in G minor, Op. 94. Maurice Gendron, cello; London Philharmonic Orchestra, Bernard Haitink, cond. PHILIPS FESTIVO 6570 112, \$6.98 [from PHS 900 189, 1968]. Tape. ●● 7310 112, \$6.98.

Comparison.

Casals, Szell/Czech Phil

Sera. 60240

All three of these recordings merit consideration, but the most interesting is the one by the gifted young Hungarian Miklós Perényi, which strikingly resembles the famous Casals/Szell version in its blunt dynamism and the rapid tempos that become even faster at the slightest provocation. Even Perényi's nasal tone is reminiscent of Casals.

For my taste the virtues far outweigh the defects—I have always loved the Casals recording (still available in a bright Seraphim transfer) and welcome so close an approximation in modern sound. Ironically, Hungaroton's engineering also recalls the Casals/Szell version: The brass is slightly gritty; timpani and lower strings delineate *tutti*s with terse, boxy emphasis; concertante detail, which gives this music so much of its rustic allure, is consistently underplayed. Géza Oberfrank gets responsive playing from the Budapest Philharmonic, and only those who look for more color will find this elemental, vigorous performance wanting.

An interesting alternative to the more usual histrionic approach is the light, trim, refined new reading of Josef Chuchro. Chuchro, who is somewhat more removed from the microphone than in his previous

Just for the record.

Audiophile Edition



Just for the record, may we introduce you to the Audiophile Edition from Bib Hi-Fi Accessories, Inc. Already sought in more than 60 countries, the Audiophile Edition comes from England, with the technical and esthetic superiority that have made Bib's a preeminent name for more than 25 years.

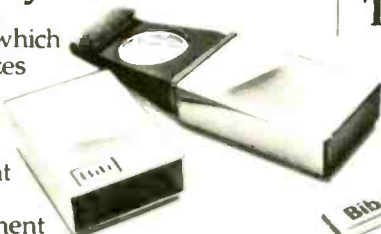
And, just for those records with which you are most concerned, consider this sampling:

The Record Valet

The elegant, effective remover of damaging substances, pictured above. Note the exclusive reservoir for Bib's anti-static cleaner, to merely humidify the pad rather than coat and smear debris. Note, too, the pad's tensiled edge of bristles.

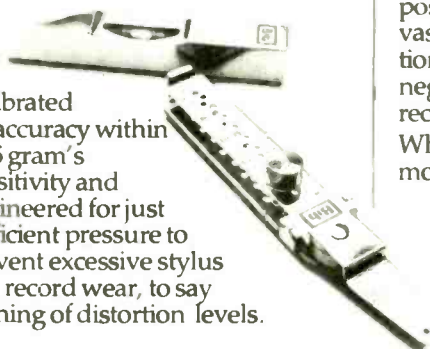
The Stylus Cleaner

Here is a cleaner which recognizes both the value of your investment and the requirement that it be protected. It removes destructive agents without harm to the stylus tip, while accompanying mildly formulated lotion softens grit and removes glaze, with no danger to cantilevers.



The Stylus Balance and Deck Level

Calibrated for accuracy within 0.25 gram's sensitivity and engineered for just sufficient pressure to prevent excessive stylus and record wear, to say nothing of distortion levels.



The Parallel Tracking Groov Kleen

Compatible with even the lowest profile deck, the unit's roller cleaning brush is augmented by a camel-hair trailer which tracks across grooves in linear fashion.



The Groov-Stat Electronic 3000



Singular among instruments of its kind, this releases only positive ions and is, therefore, vastly more effective than conventional static guns which also emit negative ions even though all records are negatively charged. While not for the record, here is one more offering from the Edition:

The Tape Head Cleaner



A unique multi-angled tool, for use on every tape recorder made. Plus our inspection mirror, a fluffy brush and the extraordinary cleaning lotion from our own chemists. Consider finally, the Edition's handsome case... Just for the Record. And the tape recorder.

The Audiophile Edition by Bib. The Finest Record and Tape Accessories in the World.



Supraphon recording (with the Czech Philharmonic under Jiří Waldihans), takes an easygoing, underplayed approach, occasionally slighting rhythmic precision and articulation; one or two of his shifts spread distractingly, although the basic tone is lush and appealing. Václav Neumann and the Czech Philharmonic provide patrician, almost chamber-music-like support; I was consistently delighted by finely tapered woodwind solos and by the resourceful flexibility of the orchestral playing in general. Tempos are well chosen, animated but never rigid. Supraphon's big-hall sound presents the instrumental dialogue in a sophisticated, understated manner.

Maurice Gendron and Bernard Haitink play with cool, aristocratic poise, and their decade-old recording still sounds superbly realistic (the new Festivo imported pressing far surpasses the original domestic Philips). The inclusion of the charming *Silent Woods* and *G minor Rondo*, both lovingly performed, makes the disc even more of a best buy. H.G.

GLINKA: Trio pathétique—See Bruch: Eight Pieces, Op. 83.

HAYDN: Concerto for Violin and Orchestra.

in C, H. Villa:1; Sinfonia Concertante, in B flat, H. I:105. Barbara Winters, oboe; David Breidenthal, bassoon; Ronald Leonard, cello; Los Angeles Philharmonic members, Pinchas Zukerman, violin and cond. [Wolfgang Stengel, prod.] DEUTSCHE GRAMMOPHON 2530 907, \$8.98. Tape: ●● 3300 907, \$8.98.

B HAYDN: Concertos for Cello and Orchestra: in C, H. VIIb:1; in D, H. VIIb:2. Laszlo Varga, cello; Bamberg Symphony Orchestra, Antal Dorati, cond. [Heinz Jansen, prod.] TURNABOUT TV 34695, \$3.98. Tape: ●● CT 2172, \$3.98.

The two works on the DG disc—the relatively youthful violin concerto from the early 1770s and the *Sinfonia Concertante* of 1792—share a spirit of virtuosity and are unmistakably intended for performance by extraordinary artists. The man who inspired the solo concerto was Luigi Tomasini, appointed concertmaster soon after Haydn's arrival at his first—and last—secure post, in the service of the Esterházy. The *Sinfonia Concertante*, though calling for a quartet of soloists, was also composed for a virtuoso violinist (the *violino prinzipale* dominates), the London impresario [Johann Peter Salomon, who must have been a very good fiddler, because his part was as elaborate and difficult as the one earlier devised for Tomasini.

The concerto still shows traces of the late baroque genre, but it is symphonic, especially the first exposition section, though immediately thereafter Haydn provides the soloist with plenty of fireworks. The *Adagio* is an impassioned piece, with a glowing cantilena carrying the solo into the stratosphere, while the finale is a typical Haydnesque romp—fast, witty, and entertaining.

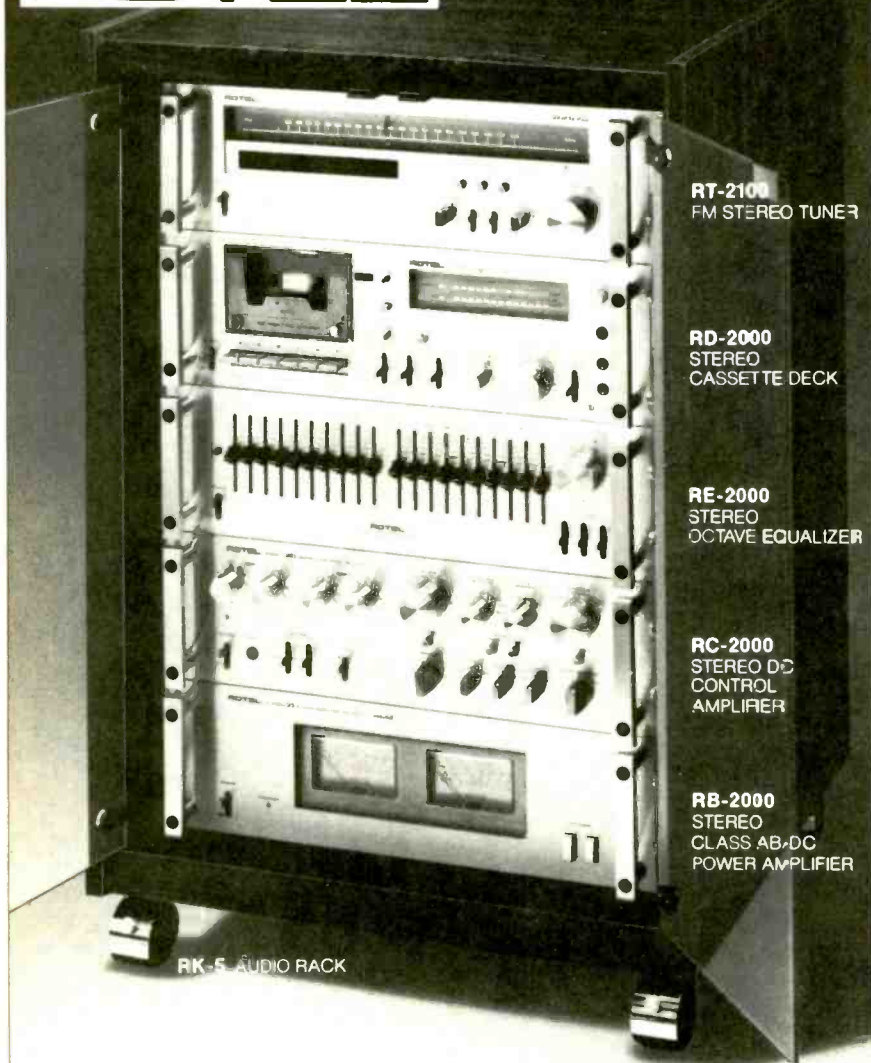
The *Sinfonia Concertante* is something else. It is of course far more symphonic, yet at the same time more rhapsodic, even though Haydn had to reckon with not one, but four soloists within a symphonic context, with no stinting of the full orchestra. He succeeded so well that the London press gave him unanimous praise amounting to adulation. (Haydn must have smiled when the conservative English made him conduct this modern work from a continuo harpsichord.) The combinations are endless: Here the orchestra and the soloist play together, developing the thematic material; the bassoon suddenly appears from nowhere, darting into the solo violin's cantilena; then again the oboe twitters while the cello takes over the violin's territory in the heights. The finale is especially delightful, with plenty of Haydn's unexpected musical jokes and general pauses. It begins with an unmistakable introduction to an operatic finale, and sure enough, the violin enters with a mock accompanied recitative; afterward we are treated to a typical concerto finale modeled on the buffa, fast and funny—no one can nod in this lively rondo.

The DG performances are excellent and full of life, and in fact all participants deserve the title "virtuoso." Pinchas Zukerman has only one stylistic blind spot: dilated cadences and a long wait between the last two chords (in some instances there is enough time to drop three shoes). The

ROTEL OF AMERICA, INC. 1055 SAW MILL RIVER ROAD, ARDSLEY, NEW YORK 105C2
(in Canada—WHITE ELECTRONICS, Malton, Ontario)

Quality. Uncompromised.

ROTEL



RT-2100
FM STEREO TUNER

RD-2000
STEREO
CASSETTE DECK

RE-2000
STEREO
OCTAVE EQUALIZER

RC-2000
STEREO DC
CONTROL
AMPLIFIER

RB-2000
STEREO
CLASS AB-DC
POWER AMPLIFIER

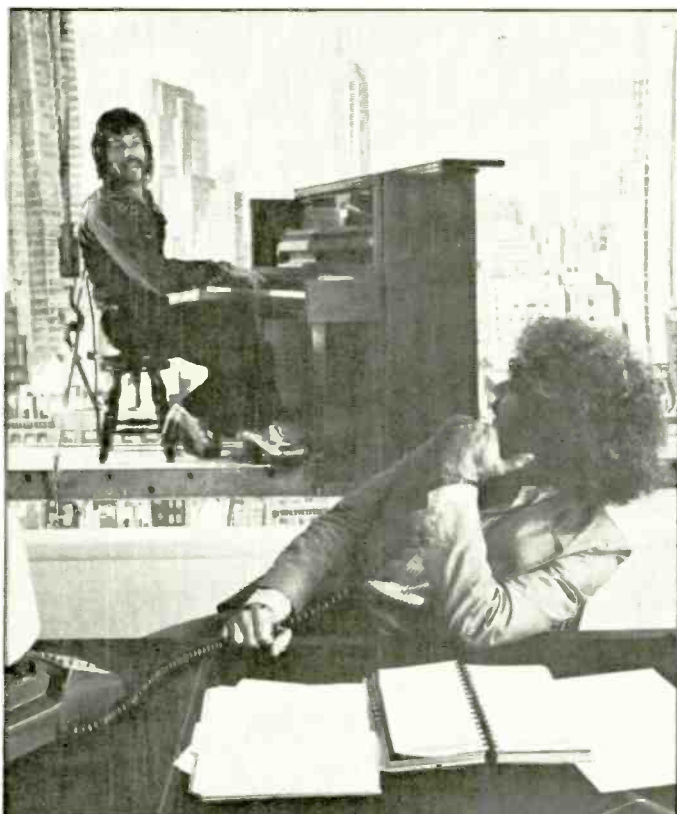
RK-5 AUDIO RACK

from the 2000 Series:

The Primary System—simply for damn good music.

**THE HEART AND
SOUL OF SOUND**

Four ways to get someone in the music business to listen to your song.



The Surest Way is the 1979 American Song Festival®

Instead of going to ridiculous lengths to get a music business heavy to hear your songs, enter them in our 6th Annual Songwriting Competition. We'll GUARANTEE each song will be heard by a minimum of two music pros. Our judges are producers, music industry executives, music publishers or recording artists . . .

They're always looking for good songs! And all you need is a good song. You don't have to write music, just record your song (home demos are fine). There are categories for all types of music. Amateurs never compete against professionals. Plus, you retain all rights to your material.

In our first five years, over HALF A MILLION DOLLARS in cash prizes have been awarded. But even more important, entered songs have been recorded by superstars like Barbra Streisand; Barry Manilow; The Jefferson Starship; Johnny Mathis; Hall & Oates; Helen Reddy; Ray Charles; Hank Williams, Jr.; and Betty Wright. Winning singer/songwriters have been signed to top labels such as Warner Bros.; A&M Asylum; FCA; Columbia; Unitec Artists; Mercury; and Atlantic. THIS YEAR IT COULD HAPPEN TO YOU!

For lyricists, we'll also have the exciting LYRIC COMPETITION 6, designed especially for your special talent.

If you want to be in the music business, advance your career and build that all important "track record" . . .

THIS COULD BE THE BREAK YOU'VE BEEN LOOKING FOR!

YES, I am interested in finding out more about the 1979 American Song Festival and Lyric Competition 6. Please send me complete information and Official Entry Forms.

NAME: _____

ADDRESS: _____

CITY _____ STATE: _____ ZIP: _____

Mail to: The American Song Festival
5900 Wilshire Blvd. West Pavilion
Los Angeles, CA 90036
Phone (213) 937-7370



HFI

Representation of Sterling Recreation Organization 1978 American Song Festival, Inc.

MUSICALLY,



5-37456

ITZHAK PERLMAN VIRTUOSO VIOLINIST

Includes Bazzani: Dance of the Goblins
Wieniawski: Scherzo-Tarantelle
& music by Sarasate, Vivaldi, Paganini, Novacek,
Schumann, Kreisler & Joplin

A
gesture to
greatness.

A dazzling
experience.



5-37620



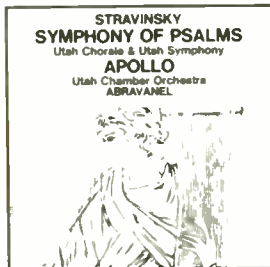
SBLX-3871 (3 LPs/3 XDR Cassettes)

A Norina
you'll love.

A
year-long
delight.



5-37509



5-37316

A concert
of the
sacred and
profane.

a joyous New Year.



CIRCLE 4 ON PAGE 89

sound is good, though in the Sinfonia Concertante it is a little too open and forward, making the tutti and the very high violin tones a little shrill.

The first of the two cello concertos dates from about the same time as the C major Violin Concerto, and it too was composed for one of Haydn's own men, who must have been a very good instrumentalist—Haydn did not spare the rosin. The first movement is a fairly routine Allegro, but Laszlo Varga plays it so well that one's attention never wanders. The Adagio is an ariallike piece, both the solo and the orchestra singing warmly. The final Allegro is bounding and energetic in Haydn's delightful middle-period symphonic vein; it rushes along, neither its physical velocity nor its musical vigor impeded for a moment. Though the virtuosity demanded is considerable, both soloist and orchestra cope with it admirably: this is an exhilarating piece.

Side 2 offers the Haydn cello concerto, composed in 1783 for Anton Kraft, a skillful cellist in the Esterhazy orchestra, and published as Op. 101. The more sophisticated mature Haydn begins the concerto with a suave songlike theme instead of the usual bustle, and while there is of course a good deal of passagework, the cantabile quality is maintained throughout, even in the perilously high regions. We notice one of Haydn's favorite means of establishing cyclic connections: The theme of the fine Adagio starts out with material taken from the end of the principal theme of the first movement. This is a classically poised slow movement, pensive and expressive. In the finale, Haydn turns to his very own folkish dialect, but while the dialect may be popular, the craftsmanship is of a very high class and the solo part gratifying for the performer.

The performance is superlative. Varga is an artist of the first water; his warm, beguiling tone can plead or command, soar or whisper, and it never turns nasal, even when the cello is made to climb into the violin's bailiwick. And Varga has taste combined with elegant musicianship. Antal Dorati and the Bamberg Symphony support him alertly and with accuracy, and the sound is very good. P.H.L.

HOLST: The Planets, Op. 32. Concertgebouw Orchestra. Neville Marriner cond
PHILIPS 9500 425. \$8 98 Tape ●● 7300 643. \$8 98

Comparisons
Haitink/London Phil
Previn/London Sym

Phi 6500 072
Ang S 36991

Marriner's *Planets* isn't a showpiece-spectacular version, but it's an admirably eloquent one—quite incomparably so in his magically delicate "Venus." It's clearly outstanding, too, for the enchantingly lovely tonal qualities he draws from the obviously empathic Dutch players and for the superb concert-hall authenticity with which the Philips engineers have captured both the performance and the Concertgebouw acoustical ambience. The performance does show slight signs of the conductor's relative inexperience in large-scale display works. He is often just a bit too careful, and

the work's exuberant moments (in "Jupiter" in particular) lack the full measure of fervency and spontaneity Marriner might have given them if he had let himself go as enthusiastically as he has so often done in his baroque-era and early-classical specialties.

In general, this is one of the more restrained and poetic *Planets* on record, more akin to Haitink's than to Previn's more extroverted and spectacular one or such older favorites as those by Karajan and Steinberg. Marriner aficionado though I am, Haitink remains my all-round preferred choice, but the new Philips disc (or the sonically identical cassette) is an attractive alternative, especially for its re-creation of what one might actually hear in the Concertgebouw. R.D.D.

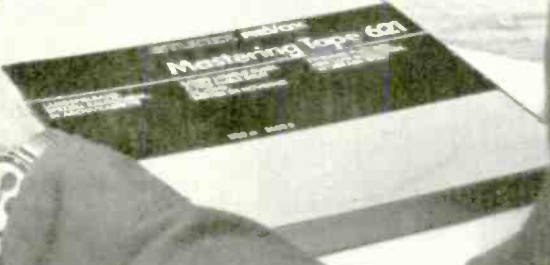
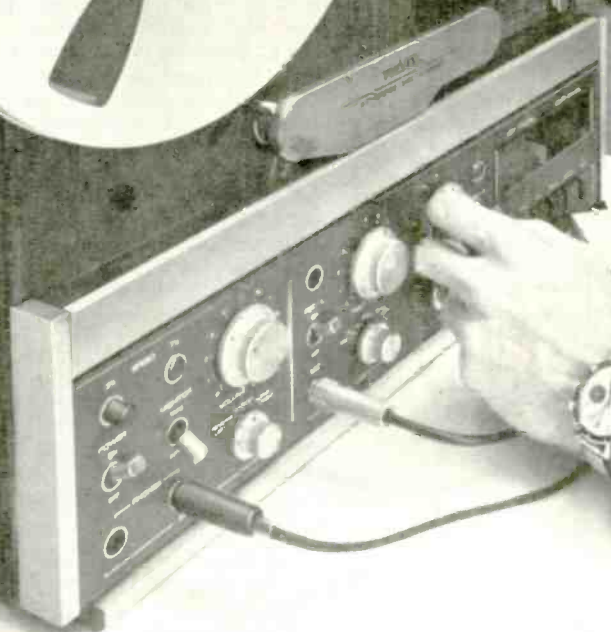
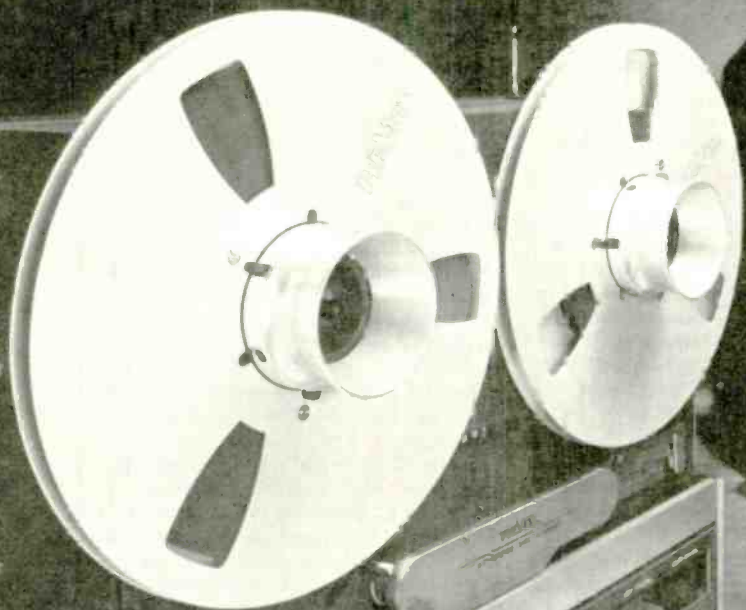
JANÁČEK: The Cunning Little Vixen: Suite (arr. Talich). Taras Bulba. Toronto Symphony Orchestra. Andrew Davis cond [Andrew Kazdin, prod] COLUMBIA M 35117. \$7 98

The concert suite from Janáček's *The Cunning Little Vixen* was arranged by Vaclav Talich, who recorded it himself in the mid-Fifties for Supraphon—also coupled with the "orchestral rhapsody" after Gogol. *Taras Bulba*. Exquisite though Talich's Vixen selections are (mainly from the first of the opera's three acts), there is that much more haunting music omitted, and the animal characters' high tessitura, much of it meant to be sung by children, loses something in translation to instrumental garb. Nonetheless, since both Supraphon recordings of the opera leave something to be desired, the suite serves as a delectable appetizer. The better-known *Taras Bulba*, whose three movements depict scenes of brutal horror and transfiguring courage and idealism, is still less performed than it deserves.

Andrew Davis has established himself as a Janáček specialist with his performances of the *Glagolitic Mass* in London and Boston. While the Toronto Symphony isn't quite in the Boston Symphony class (to say nothing of the Czech Philharmonic as heard with Talich), it is a stylish, responsive, and energetic ensemble, able to come to terms nicely with the delicate whimsy of the Vixen music, even if Talich conveyed a bit more tenderness and atmosphere. (Davis, incidentally, mentioned to me that he had discreetly adjusted some of Talich's orchestration to bring it more in line with the original.)

The brooding power of Talich's *Taras Bulba* remains to my taste unmatched, and even Supraphon's dim mono sound cannot conceal the amber incandescence of the Czech Philharmonic's playing. But Davis' driving and extroverted account is quite effective, and I recommend it among current domestic editions. Columbia, however, has not captured the organ part in the final peroration quite as excitingly as DG did in Kubelik's somewhat unkempt Bavarian Radio Symphony account (2350 075), which also features a valuable "basic" coupling in the Sinfonietta. A.C.

real to reel...



sounds best on ReVox B77

Real to reel means live performance recording, and that's where the ReVox B77 dramatically demonstrates its superiority over other tape recorders. Only the B77 has the wide dynamic range and generous record headroom you need to capture without compromise the full detail and dimension of live music.

Only the B77 delivers the "ruler-flat" frequency response you get from Willi Studer's legendary head design. Only the B77 combines the convenience of push-button digital logic control of tape motion, professional VU meters with built-in peak level indicators, and a self-contained tape cutter/splicer.

If you're thinking of upgrading your real to reel performance, try the ReVox B77. It's available in half or quarter track, 3 $\frac{3}{4}$ -7 $\frac{1}{2}$ or 7 $\frac{1}{2}$ -15 IPS. For complete information and list of demonstrating dealers, circle reader service number or contact us at the address shown below.

REVOX

McIntosh

"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 _____

City _____ State _____ 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.

KETELBEY: Various Works. Ambrosian Singers; Philharmonia Orchestra, John Lanchbery, cond. [John Mordler, prod.] ANGEL S 37483, \$7.98 (SQ-encoded disc). Tape: ●● 4XS 37483, \$7.98.

In a Persian Market; In a Monastery Garden; Chal Romano; In the Mystic Land of Egypt (with Vernon Midgley, tenor); The Clock and the Dresden Figures (with Leslie Pearson, piano); Bells Across the Meadow; In a Chinese Temple Garden; In the Moonlight; Sanctuary of the Heart (with Jean Temperley, mezzo-soprano).

Is there any health-diet fanatic who hasn't at some time yielded to the temptations of junk food? Or any musical purist who hasn't succumbed momentarily to the seductive catchiness of a schmaltzy tune? As every old-timer is aware, the McDonald's—even the massage parlor—of music long was an extraordinary British institution wearing many pseudonyms but whose real name was Albert Ketelbey: he lived from 1875 to 1959, but his incomparably juicy tunes and "exotic" orchestral effects will never die.

Ketelbey's greatest days were those of the silent movies, when theater orchestras, organists, and pianists would have been helpless without his immense repertory of what were called "characteristic intermezzos" to draw upon. In the analysis of an astute HF reviewer of twenty years ago, Ronald Eyer, it was Ketelbey who "taught us what Oriental music is—and thereby set back East-West musical relations by a hundred years, or maybe forever. . . . The fact is that to all Western ears Oriental music is Ketelbey music: the clashing cymbals; the little ping-pong bells; the minor modes; the amazingly graphic mincing step created by rapidly reiterated notes; the coy taps on the woodblock."

Ketelbey-isms of course continued to echo in film, and even more in TV scores, but there have been no adequate recent recordings devoted to this poor man's combination of Schubert and Richard Strauss; perhaps no fully satisfactory ones since the 78-rpm era when the Master (who doubled as a publisher and record-company executive) was conducting his own works for English Columbia. Now this long neglect has been richly atoned. John Lanchbery, best known as a ballet conductor, resurrects Ketelbey in glorious sonic Technicolor. He and his collaborating instrumentalists and singers provide true, non-camped-up epiphanies of such unforgettable and quite incomparable (thank God!) masterpieces as the *Persian Market*, *Monastery Garden*, and *Chinese Temple Garden* scenes. And EMI engineer John Kurlander supplies lush, resonant (especially in the organ passages), exotically percussive, irresistibly hypnotic sonics. These prime examples of Ketelbeyana are sui generis in either disc or cassette stereo; in quad playback they drip even richer juices.

"Unfortunately," as Eyer was quick to qualify his tribute, "Ketelbey was a one-dish man. The minute he departed from chop suey, he was dead." The exoticism begins to bleach out in the Gypsy overture *Chal Romano*, and the rest of these divertissements are inconsequential at best—with the possible exception of *Sanctuary of the Heart*, subtitled a *méditation religieuse*,

which well may plumb the all-time depths of sentimentalization.

Anyone for a junk-food orgy? R.D.D.

MAHLER: Symphony No. 1, in D. London Philharmonic Orchestra, Klaus Tennstedt, cond. [David Mottley, prod.] ANGEL S 37508, \$7.98 (SQ-encoded disc). Tape: ●● 4XS 37508, \$7.98.

Comparison
Horenstein London Sym None. H 71240

Tennstedt's debut recording, intended as the beginning of a Mahler cycle, is a piece of solid musicianship. The composer's directions are heeded respectfully, if not fanatically; textual points are made without the sometimes ostentatious "Romantic" exaggeration of Bernstein (Columbia M 31834) or Paita (London SPC 21167). Tempos are moderate and well maintained; both repeats are observed. The London Philharmonic plays well, though without the jewel-like refinement of the Concertgebouw under Haitink (Philips 6500 342).

What most dampens my enthusiasm is the sound, cloudier and less detailed than I would like. (The low disc mastering level also allows some surface-noise intrusion in softer passages.) Even the rousing climaxes of the first, second, and fourth movements lack vividness and brilliance. The virtues of Tennstedt's First can be had in Horenstein's Unicorn/Nonesuch recording, along with a coiled-spring tension and excitement that make it, for me, the most thrilling and authentic account of the work on disc.

A.C.

MAHLER: Symphony No. 5, in C sharp minor. Symphony No. 10: Adagio. Philadelphia Orchestra, James Levine, cond. [Jay David Saks, prod.] RCA RED SEAL ARL 2-2905, \$15.98 (two discs, automatic sequence). Tape ●● ARK 2-2905, \$15.98.

Comparisons—No 5
Haitink Concertgebouw Phi 6700 048
Solti/Chicago Sym Lon. CSA 2228
Bernstein/N.Y. Phil. Col. M2S 698
Walter/N.Y. Phil. Olys. 32 26 0016

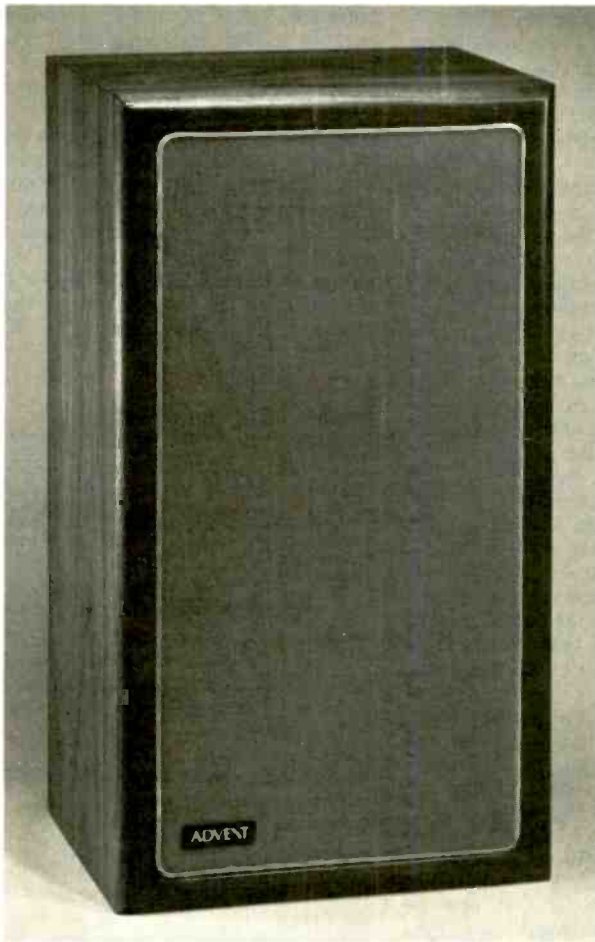
Comparisons—No 10 (complete)
Ormandy/Philadelphia Orch Col. M2S 735
Morris/New Philharmonia Phi. 6700 067

Nowhere does Mahler make more stringent demands on the conductor than in the Fifth Symphony, and in no recorded performance I've encountered have those demands been realized as thoroughly as in James Levine's.

In the opening Funeral March, Levine differentiates the three main pulses even more clearly than did Solti, and in the slow interludes of the scherzo he is painstaking in his adherence to Mahler's tempo gradations for the horn recitatives (which change with almost every phrase), producing a wonderful sense of remoteness and meditative calm opposed by latent restlessness. Finally, the epitome of a Mahler "booby trap" comes in the closing pages of the symphony, where the triumphant brass chorale is to be taken slowly and heavily only at No. 33, and not at its first appearance shortly before; everyone else either slows down prematurely or

*A New Version of This Country's Most Popular
And Most Imitated Speaker System.*

The New Advent Loudspeaker.



Over the past few years, the Advent Loudspeaker has gone into more people's homes in the United States than any other speaker system. It has been imitated over and over, and has been used consistently as a standard of performance (even by salesmen and companies trying to sell other speakers).

The New Advent Loudspeaker sounds very much like the original. It should, since the sound-character of a really excellent speaker shouldn't need much alteration — and shouldn't be subject to change for the sake of change.

But the sound of the New Advent Loud-

Cabinet constructed of non-resonant particle board finished in genuine walnut veneer.

speaker is perceptibly different at the high end of the frequency range. The change has been made possible, and worth making, by improvements in the high-frequency capabilities of tapes, broadcasts, and — most of all — records.

Thanks to the almost universal use by recording companies of the Dolby® system and other noise-reduction techniques, and to a new generation of record-cutting equipment which can put more undistorted output onto records in the 10,000 Hz region, there is more *recoverable, usable* high-frequency content in source material than ever before. There is more clean sound above the noise and distortion in the recording process.

The New Advent Loudspeaker is designed to reveal that sound.

Like the original Advent, the New Advent Loudspeaker is the best answer we know how to make to two fundamental questions:

- What is the highest level of performance that has real meaning for the great majority of truly critical, demanding listeners?
- How do you get that performance at a cost low enough to make it available to the widest number of people who would like it?

It may be hard to believe that a speaker that costs only \$139 to \$169* (depending on cabinet finish and how far we have shipped it) can really fit the highest category of speaker performance. But it can and does.

For complete information on the New Advent Loudspeaker, and a list of Advent dealers, please send us the coupon.

Thank you.

To: Advent Corporation, 195 Albany Street,
Cambridge, Massachusetts 02139 HF-2/79
Please send information on the New Advent
Loudspeaker and a list of your dealers.

Name _____

Address _____

City _____

State _____ Zip _____

*Suggested price, subject to change without notice.

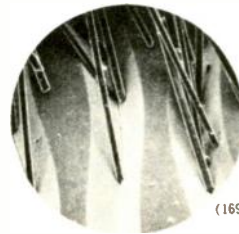
Advent Corporation, 195 Albany Street, Cambridge, Massachusetts 02139.

Take a close look at a better record cleaner. Audio-Technica AT6002



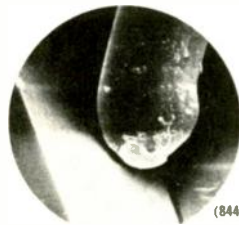
(84x enlargement)

This is an A-T scanning electron microscope photo of the dirt that must be removed if your records are to sound clean. It's dirt that is falling on your records even as you listen.



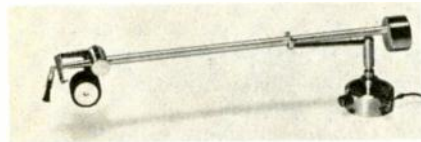
(169x enlargement)

Our unique carbon fiber brush sweeps each groove literally hundreds of times as the record plays, just before the stylus touches the groove. The carbon fiber brush helps conduct static charges away, making groove cleaning easier. And the incredibly small 6 micron diameter reaches deep into the groove for the smallest particles.



(844x enlargement)

Immediately behind the brush, our velvet pad captures and holds dust particles as you play. And moisture released from an inner reservoir helps to dissolve stubborn deposits to prevent static build-up.



This 4-way attack on dirt (brush, pad, liquid, and conductive path to ground) is uniquely effective. For proof, clean a record with any other system. Then "play" it with the AT6002. You'll find dirt removed by the AT6002 that was left behind by other cleaners. Try it today. Just \$12.95 at all Audio-Technica dealers.



audio-technica
INNOVATION □ PRECISION □ INTEGRITY

AUDIO-TECHNICA U.S., INC.
Dept. 29H-1 33 Shiawassee Avenue
Fairlawn, Ohio 44313
In Canada: Superior Electronics, Inc.

fails to do so at all, but Levine takes the composer at his word and the carefully judged timing is electrifying and exalting in its impact. The conductor's rhythmic incisiveness and ear for complex counterpoint are everywhere evident, but note too his ability to scale down to the more modestly lyrical proportions of the Adagietto.

One doesn't normally associate the suave "Philadelphia sound" with either Mahler's laconic and bracing sonority or the crisp objectivity of such conductors as Levine. However, the combination works handsomely, and I find the orchestral execution of an energy, precision, and virtuosity fully competitive with the recordings by the Chicago Symphony and the Concertgebouw. There are lapses: Compare the Philadelphians' mushy handling of the string fugue early in the finale with the Concertgebouw's bite and precision for Haitink. Yet, much as I admire both the Concertgebouw version and the more aggressively dazzling Solti/Chicago one, neither has the humor and swagger of the Philadelphia under Levine.

Levine's influence on the orchestra (with which he is scheduled to record the Mahler Ninth) can be more directly gauged in the Adagio of the Tenth Symphony, which Eugene Ormandy recorded as part of Deryck Cooke's early performing version of the five-movement score. The difference is not so much in sonic characteristics as in the intensity and commitment of the playing, the greater breadth, and the clarity of the woodwinds. (The latter, though, is at least partly due to Levine's use of Cooke's final version, in which winds are quadrupled rather than tripled, as in the version recorded by Ormandy.) My own preference with this movement, however, is to hear it as the first movement of the complete symphony, which for now is best done by Wyn Morris on Philips. (Levine hopes to record a complete Tenth.)

Save for a subdued disc cutting level, RCA's sound is exemplary in spread and clarity. Strongly recommended to all except those who want a more voluptuous Fifth; to them I suggest the slightly aging, mildly heavy recording by Leonard Bernstein and the New York Philharmonic (Columbia), the very aging but exquisitely flowing and splendidly played one by Bruno Walter and the Philharmonic (Odyssey, rechanneled), or the similarly trim and taut but remarkably *affettuoso* one by Kiril Kondrashin and the U.S.S.R. Symphony (Melodiya—available from Germany on Eurodisc, in a three-disc set with the Seventh Symphony, 27 398 XGK).

MARAI: Recorder Suites, Vol. 1: in B flat; in G minor. Quadro Hotteterre (Kees Boeke and Walter van Hauwe, recorders; Wouter Moeller, cello; Bob van Asperen, harpsichord). TELEFUNKEN 6.41992, \$8.98. Tape: ●● 4.41992, \$8.98.

The modern-era phonographic renaissance of the long-neglected Marin Marais (1656-1728), greatest of all French—or any—gambists, was pioneered by Eva Heinitz for

L'Anthologie sonore in the mid-Thirties, and since then a considerable recorded repertory has been built up. It's good to discover that he did write for other instruments. Although the Telefunken notes are vague on the source of the present two recorder suites, it's a pretty safe guess that they come from Marais's 1692 published set of *Pièces en trio pour les flûtes* [i.e., recorders], violon, et dessus de viole. The suites, comprising eleven or twelve mostly very brief dances or divertissements, are generally lightweight—disarmingly lilting in faster tempos, drearily plaintive in slower ones. They rise to poetic eloquence only in three larger-scaled movements: the first suite's "La Marianne" with its following *autre* (i.e., variation) and the second's admirably varied and expansive "Passacaille."

The period-instrument performances by the young Quadro Hotteterre (whose two recorder players are Frans Brünnen pupils) lapse into soulful sluggishness at times, but when they come to life they are delightfully graceful and vivacious, commanding a remarkable variety of warbling and cooing as well as whistling tonal charms. And there is interest in the unusual use of a five-string c. 1740 violoncello piccolo rather than a gamba for the continuo part. R.D.D.

PUCCINI: Madama Butterfly.

Cio-Cio-San	Renata Scotto (s)
Suzuki	Gillian Knight (ms)
Kate Pinkerton	Ann Murray (ms)
Pinkerton	Plácido Domingo (t)
Goro	Florindo Andreoli (t)
The Official Registrar	Alan Byers (t)
Sharpless	Ingvar Wixell (b)
Prince Yamadori	Jonathan Summers (b)
Yakuside	Leslie Fyson (b)
The Bonze	Malcolm King (bs)
The Imperial Commissioner	Christopher Keyte (bs)

Ambrosian Opera Chorus, Philharmonia Orchestra, Lorin Maazel, cond. [Paul Myers, prod.] COLUMBIA M3 35181, \$23.98 (three discs, automatic sequence). Tape: ●● M3T 35181, \$23.98.

Comparison:
Scotto, Bergonzi, Barbirolli/Rome Opera Ang. SCL 3702

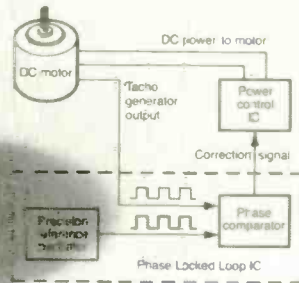
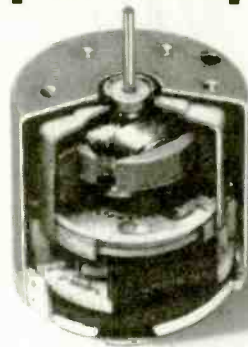
Ever since it first appeared several years ago, Renata Scotto's Angel Butterfly, under the direction of Sir John Barbirolli, has been for me the most impressive and touching performance of the role on disc. It is now surpassed by the same artist, who as both interpreter and vocalist here demonstrates a capacity for self-renewal within the grasp of no other major operatic performer I know of today.

With the passage of time Scotto's conception of Butterfly's character has deepened. There is now more light and shade, more color and texture, in her portrayal. The references to her dead father in Act I are projected with much greater vividness. So is the passage about American methods of divorce in the Act II Butterfly/Sharpless duet: Where before Butterfly simply referred to the dialogue between judge and plaintiff, she now acts it out for us, thus bespeaking her passionate involvement in the subject. In replying to Sharpless' question about what she would do if Pinkerton never came back to her, she is incom-

1,247 times a second this motor checks itself for perfect speed...

How it works:

Built into the RD5350 motor is a 68 pole tacho generator that produces a series of pulses proportional to the motor speed. In the Phase Locked Loop integrated circuit, these pulses are compared with the signal from the precision reference oscillator (1246.7 Hz). If even a single pulse is found to be slightly out of phase, power to the motor is adjusted by a second integrated circuit to restore synchronization. This process takes place independent of fluctuations in load or AC line voltage.



so you'll never hear anything less than perfect sound from this Sanyo Tape Deck.

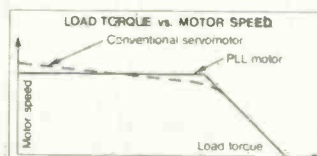


The new Sanyo RD5350 Dolby cassette deck has one of the most advanced drive motors ever put in a tape machine.

It's a new frequency generator DC motor with Phase Locked Loop speed control servo that actually checks and corrects for even the most infinitesimal speed variations *1,247 times every second!*

This hair-splitting accuracy helps give the RD5350 one of the lowest wow & flutter figures in the industry: 0.05% WRMS. And lets the drive system ignore line voltage fluctuations, and breeze right through even "sticky" cassettes without missing a beat.

Naturally, the RD5350 has one of the most rugged, precision tape transports available today and high performance electronics. As a result, you get superior specs like 30-17,000 Hz response ($\pm 3\text{dB}$, CrO₂ tape)



and 64dB S/N ratio with Dolby. *Which is more Hz and less noise than you'll find on the discs and broadcasts you tape.*

You also get advanced features like 3 peak-indicating LED's (0, +3, and +6 VU), separate input and output level controls, a Record Mute button for erasing short sections of tape, and a timer standby feature for taping programs when you're not around.

You'd probably expect to pay a bundle for a deck as sophisticated as the RD5350. But thanks to Sanyo's integrated manufacturing capability, you can have it for only \$240.*

Which may be the most perfect thing of all about the RD5350.

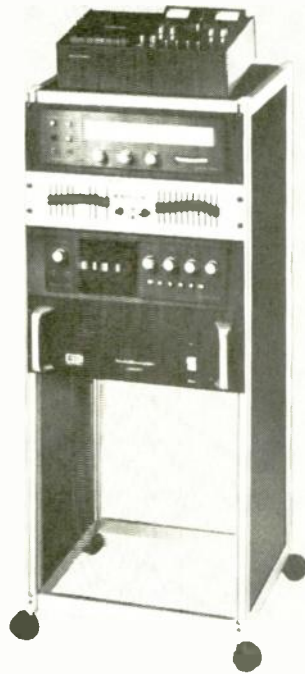
SANYO

That's life.

the ultimate 19" rack

the ProRack

Now there is a precision rack from AudioFile that takes any hole spacing, and accomodates units narrower than 19" if required. Shelves, too, can be added and wiring channelled into close tolerance aluminum extrusions beautifully finished in satin anodise. Adjustable casters are provided with adjustable feet available as an option.



click AudioFile Systems, A member of the Hammond Industries Group
155 Michael Drive, Syosset, New York 11791. Telephone (516) 364-1900.
West Coast telephone (213) 846-0500, Canada telephone (416) 677-0545.

CIRCLE 15 ON PAGE 89

Scotch® Recording Tape... it sounds like money well spent.



Scotch® Recording Tape. The truth comes out.

parably more affecting than on Angel, as she is later in the same scene when, holding up her child, she disavows the possibility of a return to her old life as a geisha. In the former, a chill enters her voice as she looks ahead to the possibility of death; in the latter, we hear a memorable feverish intensity as she talks with horror of begging for alms.

Perhaps the most expressive evidence of Scotto's deepened awareness occurs at the end of Act II, when Butterfly acknowledges in her face the evidence of time's deprivations: "*Non son piu quella! Troppi sospiri, la bocca mando, e l'occhio riguardo nel lontan troppo fisso*" ("I am no longer what I used to be! My mouth has breathed too many sighs, my eye has stared too hard into the distance"). Scotto sings the passage with so much meaning, so deep and quiet a sense of personal loss, that we feel as never before the full extent of Butterfly's suffering. She even manages to infuse new life into the well-worn phrases of "*Un bel di*," which she projects, like a great actress, with individual vividness.

She also vocalizes the role better than she did in the earlier recording, managing her resources with unobtrusive mastery. As might be expected, she is sometimes squally on top. The high B flat and A flat toward the end of her scene with Sharpless (on "*troncar, ah!*") are strident. Yet moments like this are few, and on the whole Scotto sings with beauty as well as expressiveness, as witness the exquisite high A on "*nidiata*," shortly before "*Un bel di*," and the radiant high B flat she wisely substitutes for the alternative D flat at the end of her Act I entrance.

In a passage like "*Amore o grillo*," Placido Domingo, an intelligent artist, can no longer make his dark and heavy timbre respond to his interpretive intentions with the necessary pliancy and variety of tone, but when the music calls for ardor, as it so often does, he is wonderfully thrilling. Ingvar Wixell's Sharpless is reliable, if less tonally stable than it might be. Florindo Andreoli's Goro is well characterized. The remainder of the cast is less authentic in Italian enunciation, especially with respect to consonant placement. In addition, Gillian Knight (Suzuki), whose timbre I find unattractive, often distorts her vowels.

Chorus and orchestra are highly satisfactory. Lorin Maazel leads a puzzling and rather featureless performance. On the whole it is too slow, but more important it is aimless, lacking any real sense of overall comprehension. The flood tide of the Act I love duet, for example, is meaninglessly impeded in its final stages. Luckily Scotto, especially in Act II, proves the stronger artistic personality and, since she is scarcely off-stage for the rest of the opera, provides the determinative artistic leadership.

The recording is good, though curiously lacking in perspective, so that characters supposed to be heard from adjoining rooms sound far too close. The Italian-English libretto is faintly printed on gray-blue paper and needs more careful proofreading.

D.S.H.

RABAUD: Mârouf, savetier du Caire.

Saamcheddine

Anne Marie Blanzat (S)

IT TOOK TOSHIBA TO BUILD THE WORLD'S FIRST DIGITAL-SYNTHESIZED RECEIVER.



The Toshiba 7150 locks into the center of any station's assigned broadcast frequency and eliminates drift.

A few years ago, Toshiba introduced and marketed the first fully electronic digital-synthesized tuner.

Now Toshiba has another first.

We've built a digital-synthesized tuner into a high-powered, low-distortion FM/AM receiver: the Toshiba 7150 with SYNTHETUNE.[™]

SYNTHETUNE is a function that provides tuning so accurate even a center tuning meter is unnecessary. Drift is eliminated.

The 7150's FM tuner section also contains flat group delay IF circuitry. And a quartz crystal oscillator, which automatically locks into the center

of any station's assigned broadcast frequency—as precisely as the station's own transmitter.

Tune the 7150 just by pushing the auto-scan button. It scans the full range of the AM or FM band, stopping precisely at each listenable station.

Bright green LED numerals instantly display all frequencies as they are tuned.

Of course, there's more to the 7150 than SYNTHETUNE.

It also has separate transformers for class A and class B amplifier sections. The toroidal transformer for class B amplification has separate left and right power supplies.

It also has Dolby[®] FM and an air check switch for

accurate tape recording.

Furthermore, the 7150 delivers a minimum of 150 watts per channel into 8 ohms, 20 to 20,000 Hz, with no more than 0.05% THD. And the rest of the specs are just as impressive.

Hear the Toshiba 7150 at better audio dealers. At \$1100.00^{***} it's the top of our line. But every receiver Toshiba makes is engineered just as meticulously.

So they all have one thing in common. Superb sound quality.

TOSHIBA

Again, the first.

Toshiba America Inc., 280 Park Ave., New York, NY 10017

TDK recording tape technology— now the eyes have it.



TDK technology has made today's "super fidelity"™ recording possible. In fact our SA audio cassette is the industry high bias standard. Now TDK Super Avilyn engineering has produced a state-of-the-art VHS video cassette—the first non-deck-maker brand cassette approved for four-hour use by the deck manufacturers themselves. So if you take your video seriously, put TDK technology in your VHS deck with Super Avilyn video cassettes. TDK Electronics Corp., Garden City, NY 11530.



CIRCLE 44 ON PAGE 89

Listen to music, not hiss.

PNS



PREAMPLIFIER-NOISE SUPPRESSOR

A top quality preamplifier, with exceptional performance: built in stereo noise suppressor and subsonic rumble filter (0 dB @ 25 Hz; minus 40 dB @ 5 Hz) for the cleanest, quietest sound you ever heard. 16½" wide, 12" deep overall, 2" high; with rack-mounting option, 19" by 1¾" . . . \$390.00.

SOURCE ENGINEERING

PO BOX 500 WILMINGTON, MA 01897

Fattoumah
Marouf
The Sultan
Ali
The Vizir

Dany Barraud (s)
Michel Lecocq (t)
Franz Petri (b)
Etienne Arnaud (b)
François Loup (bs)

Nantes Opera Chorus, Orchestre Philharmonique des Pays de la Loire, Jesus Etcheverry, cond. PETERS INTERNATIONAL PLE 061 3, \$23 94 (three discs, automatic sequence)

I was curious about *Mârrouf, Cobbler of Cairo*. It was created at the Opera-Comique in 1914 with Jean Périer, the first Pelleas, in the title role and Felix Vieuille, the first Arkel, as the Sultan. By 1923 it had notched a hundred performances. In 1928 it moved over to the Opera (Georges Thill sang Mârrouf, Marcel Journet the Sultan), and in 1943 scored its century there, holding the boards until 1950. In 1917, Ninon Vallin took the piece to the Scala, Rio, and Buenos Aires, and the same year the Met heard it with Frances Alda, De Luca, and De Segurrola. It lasted three seasons, and was then revived for two performances (in English) in 1937. In other words, *Mârrouf* made its mark and has a place in the history of twentieth-century opera.

Curiosity is now satisfied. It proves to be a flimsy, elegantly made piece, which in an elegant, spectacular staging, with charming artists, would probably provide a diverting and attractive evening in the theater. Henderson in his review of the Met premiere remarked that the audience "must have found its youthful dreams of the splendors of the Arabian Nights realized in the brilliant picture of the Orient. There was much to see and admire in the new opera, which is one of fancy, humor, and sentiment without a trace of the tragic." I agree with him about the music: Rabaud's "voice parts move almost wholly in arioso. There are no sharply defined song or aria forms. . . . The greatest amount of illustrative and descriptive detail is inevitably given to the orchestra. There is no great vocal movement in the opera. The greatest pleasure, therefore, will be obtained by regarding the music as a colorful background for a legendary comedy." In other words, not the sort of score to make, in sound alone, an ideal phonograph opera.

The recording derives from a production in Nantes first mounted in 1974-75 and revived in 1976-77. Critics praised the appearance of the cast. As a vocal personality, Michel Lecocq, the Mârrouf, seems to me to lack wit, charm, and vividness. He is fluent but creates no character. He sings the role at its Pelleas pitch. (In an appendix to the score, Mârrouf's solos appear in downward transpositions for a true baritone-baritone.) Unless there are later, revised prints of the score (the one I used once belong to Alda), he is pretty cavalier about the notes—but it doesn't seem to matter. Anne-Marie Blanzat's Princess (she first appears in the third of the five acts) is neat but not wonderful. In fact, all the singing is tolerable but unremarkable. What is not acceptable is the vocal/instrumental balance. The orchestra is rather dimly recorded, and again and again Oriental details that look attractive in the score disappear beneath the voices.

The plot is a *Thousand and One Nights* tale. Mârrouf runs away from his nagging

NEW! High Fidelity's Buying Guides

Featuring:

Test Reports 1979

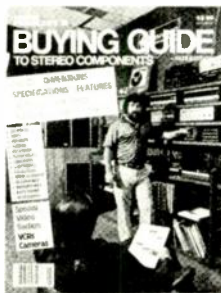
Available Now—By mail or
at your Newsstand

Here's a convenient way to order the many useful
and informative publications available from HIGH
FIDELITY in the comfort of your own home. It's
easy! Just circle the item(s) you wish and give
us your name and address on the coupon below
along with your check.



No. 201 STEREO TEST REPORTS, 1979 Edition.

A 176-page reference guide to stereo components,
including performance evaluations of amplifiers,
tuners, receivers, tape decks, turntables, tone
arms, cartridges, headphones, equalizers and ac-
cessories. \$2.95 on newsstands. \$3.95 by mail,
postpaid.



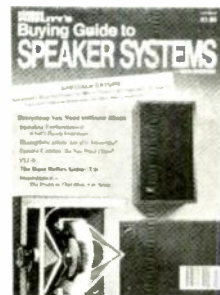
No. 202 HIGH FIDELITY'S BUYING GUIDE TO STEREO COMPONENTS, 1979 Edition.

Over 2,500 audio and video products are listed
with full specifications and prices for intelligent
comparison. A must for anyone about to purchase
practically any component or accessory. \$2.95
on newsstands. \$3.95 by mail, postpaid.



No. 204 HIGH FIDELITY'S TEST REPORTS, 1979 Edition.

How to get more for your money . . . more than
230 manufacturers' products evaluated. Experts
help you choose receivers, amplifiers, tuners,
speakers, headphones, turntables, pickups, tape
equipment and system accessories. \$3.95 on
newsstands. \$4.95 by mail, postpaid. (Available
January 16, 1979)



No. 203 HIGH FIDELITY'S BUYING GUIDE TO SPEAKER SYSTEMS, 1979 Edition.

Complete buying guide to more than 750 speaker
systems. If you can't find your dream speakers
here, they probably don't exist! Plus, several
features on Speaker Performance: What's Really
important? \$1.95 on newsstands. \$2.95 by mail,
postpaid.

HIGH FIDELITY
1 Sound Ave.
Marion, OH 43302

Here's my check for \$ _____ Please send
me, postpaid, the books I've circled below.

201 202 203 204

NAME _____

ADDRESS _____

CITY _____

STATE _____

ZIP _____

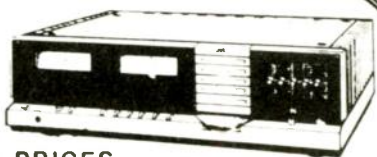
Payment must accompany order. Please allow
4 to 6 weeks for delivery. D9BF1

**THERE IS A DIFFERENCE IN MAIL ORDER.
IT'S CALLED EXPERIENCE ! WE HAVE 28 YEARS!**

**JVC-JRS-201
AM/FM STEREO RECEIVER**

35 watts per channel, RMs at 8 ohms, from 20-20,000 Hz with less than .03 percent Total Harmonic Distortion.

**SEND FOR QUOTE AND PRICES
ON OVER 100 FAMOUS BRANDS.**



JVC



146 Old Brookfield Road,
Danbury Conn. 06810
(203) 744-6421 (212) 369-6212
Mon.-Fri. 9:00-5:30 Sat. 9:00-3:00



CIRCLE 8 ON PAGE 89



**Next time you plan a trip
to Europe, make sure you
visit the unique country.**

Where can you find: Europe's largest waterfalls?
Europe's blondest blondes?
Europe's highest geysers?
Europe's greatest glaciers?

And where can you find moonlike craters where the astronauts trained? More volcanos than anywhere else on earth? Historic landmarks of the world's oldest continuous parliament? Celebrations marking Europe's youngest republic?

The answer to all of these questions is—ICELAND. Next time you plan a trip to Europe, make sure you visit Iceland.

The only thing it may cost you is time well spent. Because you'll save enough money on Icelandic's lowest jet fares to Luxembourg to pay for your stopover in Iceland. Or, you can hop over from New York or Chicago for longer tours. See an erupting volcano. Take a cross-country pony trek.

Next time you plan a trip to Europe, ask your travel agent about Icelandic Airlines. Or phone Icelandic Airlines, for folders about Iceland and lowest jet fares to Europe. In New York State, phone (212) 757-8585. Elsewhere in U.S., phone (800) 555-1212 for local toll free number.

CIRCLE 19 ON PAGE 89

wife; is shipwrecked; by pretending to be tremendously rich, marries the Sultan's daughter; is about to be executed for his deception; is saved by the timely appearance of a genie, who makes him tremendously rich indeed. My Catholic book of opera plots quotes what *L'Action* said after the premiere (to translate it would be to spoil the cadences): "*Les aveux les plus langoureux de l'âme y ramagent sur la bouche fardee des subtiles adolescentes et des maximes, solides comme la bronze des armures, y sortent des levres impaisibles des guerriers. Je ne connais rien de plus beau, de plus sensuel, de plus viril.*" The critic ends by remarking that "Christian leprosy has not tumefied the features of these authentic heroes. Horrible chastity has not touched them." (Precisely, the Catholic editors agree, and so the opera should be condemned!)

But it's all fairly tame, especially in this performance: less sensual than Ravel's *Sheherazade* (1903), musically much feebler than Bizet's *Djamileh* (there's a piece I would like to have on record); an odd cross between fashionable Oriental exoticism, in the long line from Felicien David's once-celebrated *Le Desert*, and *Pelleas*-influenced vocal declamation. Familiar fare with a dash of modern (in 1914) spice. A.P.

VERDI: *Otello*. For a feature review, see page 61

VIVALDI: *Cello Concertos*. Miklos Perenyi and Laszlo Mezo, cellos. Ferenc Liszt Chamber Orchestra, Albert Simon, cond [Istvan Juhász, prod.] HUNGAROTON SLPX 11872, \$7 98.

Concertos in E flat, RV 408 (P 424); in G, RV 413 (P 120); in B minor, RV 424 (P 180); in G minor (for two cellos), RV 531 (P 411)*

MSTISLAV ROSTROPOVICH: *Cello Concertos*. Mstislav Rostropovich, cello, Zurich Collegium Musicum, Paul Sacher, cond [Cord Garben, prod.] DEUTSCHE GRAMMOPHON 2530 974, \$8.98. Tape ●● 3300 974, \$8 98

BOCCHERINI: *Concerto No. 2, in D* **TARTINI:** *Concerto in A* **VIVALDI:** *Concertos in C, RV 398 (P 31); in G, RV 413 (P 120)*

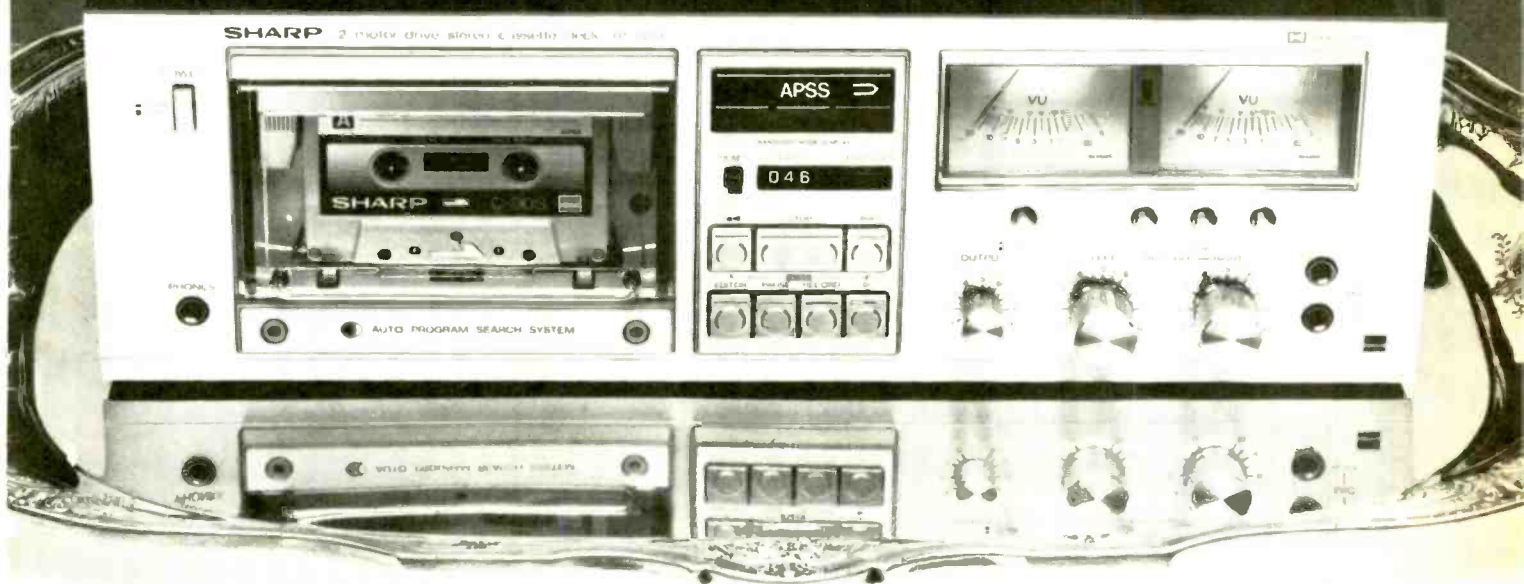
Except for his well-nigh countless violin concertos and his thirty-seven bassoon concertos, Vivaldi wrote more concertos for the cello—twenty-seven—than for any other instrument. The size and significance of this repertory, the foundation stones of the cello literature, has never been adequately reflected in either concert halls or record catalogs. Luckily none of the works on the present Hungaroton disc duplicates those on the Philips collection by Christine Walevska and Kurt Redel (9500 144).

Thirty-year-old Miklos Perényi's playing is remarkably bold and assured. Indeed, his élan and reckless lack of restraint often remind me of Casals. His big tone may seem at times overly nasal to some listeners, but his enthusiasm, uninhibitedly driving bravura, and obvious relish of the music at hand add further bracing freshness to the already considerable Vivaldian invigoration. The accompanying ensemble is capable if less distinctive; the recording—par-

86

CIRCLE 35 ON PAGE 89 →

MUSIC A LA CARTE.



Introducing Sharp's solenoid deck that plays selections according to your musical appetite.

If you hunger for one of the world's most advanced tape decks, then Sharp's RT-2251 is for you.

The RT-2251 teams the genius of the Sharp Eye™ with the convenience of solenoid controls. A combination you won't find on any other deck.

The Sharp Eye gives you individual song selection. It plays only what you want to hear. And skips what you don't.

And the solenoid controls give you feather touch finger-tip control. For faster response and greater accuracy of all tape functions.

If once isn't enough when one of your favorites finishes, tell the Sharp Eye to play it again. And it will. Automatically.

You even have the option to change your mind. The Sharp Eye lets you interrupt one song

and go on to the next. Instantly.

How do we do it? Simple. The Sharp Eye scans the tape at high speed, finds the blank spaces between selections and automatically plays back the music of your choice. To skip a selection it operates in fast forward. And for repeats, it works in reverse.

You'll also like the gourmet specs Sharp's cooked up for you. The RT-2251 serves up 0.055% wow and flutter, a S/N ratio of 66dB (Dolby® on, over 5kHz) and a frequency response of 30-17,000Hz (FeCr).

To get a real taste of our RT-2251, see the Sharp audio dealer nearest you or write Sharp Electronics Corporation, Dept. HF, 10 Keystone Place, Paramus, N.J. 07652

SHARP

THE NATION CALLS
Park Row ELECTRONICS

For Tapes & Electronics!
(212) 349-0553

For Visa or Master Charge orders—call toll free (800) 221-8464
For information: call (212) 349-0553

CASSETTES

(in lots of 12 only)

BSAF Stereo Series C-60 \$1.15

BSAF Stereo Series C-90 1.50

BSAF Stereo Series C-120 2.05

BSAF Professional

I or II C-60 1.99 I or II C-90 2.99

CHROME

C-60 1.99 C-90 2.99 C-120 3.99

TDK D C-60 1.19 D C-120 2.15

SA C-60 2.25 SA C-90 2.99

SONY C-60 1.25 C-90 1.49

C-120 2.25 C-90 Ferrichrome 3.49

VIDEO RECORDERS

Sony SL8600 \$ 875.00

NCA VCT 200 747.00

NCA VCT 400 1045.00

JVC NR 3300 749.95

JVC NR 3600 949.95

JVC NR 4100 949.95

Advent 710 w/5" screen 2294.95

Advent 750 w/6" remote ctr. 2999.95

MINI CASSETTE RECORDERS

Sony TC 156A \$139.95

New Sony TC 600M 184.95

New JVC MK100 129.95

TDK Head Demagnetizer 14.90

TDK Cleaning Kit 7.49

VIDEO CASSETTE TAPES

RCA 250 19.79

RCA 125 14.79

JVC T 120 19.79

Sony SL500 13.49

TDK SA (4 hour) 19.79

Fuji T120 22.95

CASSETTE TAPE DECKS

JVC KD A 1 137.50

New JVC KD 85 349.95

Sharp TC 3380 249.95

TEAC A 800 494.95

TO ORDER: Call us with your Master Charge/Visa Number, or send certified Check or Money Order. Personal Checks will be delayed 2 wks. Add \$3.50 for Shipping & insurance (5.50 outside of the U.S.). N.Y.S. (residence) Add Sales Tax.

SCOTCH

UD C-90 1.85 Master I C-90 3.75

Master II or III C-90 3.19

BSAF Professional Series

C-60 1.85 C-90 2.25

C-120 2.49 PRO III 2.59

STUDIO SERIES

1800 R 7.49 2400 R 9.75

3600 R (10") 14.99

REEL-TO-REEL

BSAF Professional Series

1800 R 5.39 2400 R 6.75

3600 R 10.49

STUDIO SERIES

C-60 1.99 C-90 2.49

C-120 3.49

SCOTCH 1800 R 4.39

MAXELL UD 35 to 90 5.49

UD 35 to 180 14.70

MONTHLY SPECIAL MEMOREX 1800 FT. \$3.49 (Quantities limited)

BSAF PRO III C-90 2.59

Prices subject to change without notice

Park Row Electronics

1 Park Row, N.Y., N.Y. 10038

For mail orders: 93-99 Nassau St., N.Y. 10038

Open Sun

Closed Sat

CIRCLE 30 ON PAGE 89

ticularly effective in the sonorous two-cello concerto—is powerful, realistic, and perhaps somewhat coarse.

I doubt that baroque-era purists will approve either the use of modern instruments or Perényi's use of Romantically expressive vibrato in slow passages. But such anachronisms are relatively minor here; Mstislav Rostropovich indulges in them more frankly in his Vivaldi and Tartini performances, not least in his own showpiece cadenzas. But Rostropovich obviously doesn't give a damn about that, nor are any of his fans likely to. He is in fine fettle, rousinglly accompanied and recorded in both disc and cassette editions.

In the Vivaldi G major concerto, Rostropovich is not surprisingly suaver and more grandly magisterial than Perényi. But he is much more at home, stylistically and dramatically, in the fine Boccherini D major Concerto—a wholly legitimate work, unlike the more popular B flat Concerto synthesized by Friedrich Grützmacher. R.D.D.

VIVALDI: Orlando furioso.

Angelica
Orlando
Alcina
Bradamante
Medoro
Ruggiero
Astolfo

Victoria de los Angeles (s)
Marilyn Horne (ms)
Lucia Valentini-Terrani (ms)
Carmen Gonzales (ms)
Lajos Kozma (t)
Sesto Bruscantini (bs-b)
Nicola Zaccaria (bs)

Edoardo Farina, harpsichord; Giuseppe de Marzi, organ; Amici della Polifonia, I Solisti Veneti, Claudio Scimone, cond. RCA RED SEAL ARL 3-2869, \$23.98 (three discs, automatic sequence). Also available as MUSICAL HERITAGE SOCIETY MHS 3918/20.

Now that Vivaldi is before us in his true stature, as a master of both instrumental and choral music, all of us have been waiting for an extended glimpse of the opera composer. Since opera was the focal point of music in Vivaldi's time, no baroque composer's artistic portrait is complete until we know his dramatic works. Among the great of those times, only Corelli was exclusively a composer of instrumental music; even among Bach's cantatas there are several that are obviously operatic works, and stageable.

The Erato/RCA *Orlando furioso* is not easy to evaluate. To be sure, the work has much fine music, beautiful arias and highly dramatic recitatives, disclosing the power of a born musico-dramatist, and it is sung by an excellent cast. The trouble is that Claudio Scimone, who is both conductor and editor of the score, has no idea how to re-create a baroque opera. He is a fair musician, keeping the orchestra neatly under control, but his unimaginative leadership does not extend to style; he seems not to see the work as a whole and simply proceeds from number to number. Pace, phrasing, dynamics, and pretty nearly everything else are routine. What finesse there is is supplied by the singers. Scimone drives hard and is chary of those little pauses so necessary between sections, yet the opera falls apart like a new bride's pie crust.

Besides being a conductor, Scimone is also a specialist in baroque music, but he

Continued on page 93

High Fidelity's
Free Armchair
Shopping Service

- On the card opposite, circle the number indicated at the bottom of the ad or at the end of the editorial mention of the product you're interested in. (Key numbers for advertised products also appear in the Advertising Index.)
- Type or print your name, address, and zip code on the card. Postage is prepaid.
- Mail the card today. You'll soon receive free product literature and specifications from manufacturers.



MAIL ORDER
BUYER'S SERVICE

Use the Mail Order Buyer's Service card on opposite page to order:

BUYING GUIDE

- High Fidelity's Test Reports 1978
- High Fidelity's Buying Guide to Stereo Components 1979
- High Fidelity's Buying Guide to Speaker Systems 1979

SUBSCRIPTIONS

- High Fidelity Magazine
- High Fidelity/Musical America edition

Mail card along with payment to:

High Fidelity
1 Sound Avenue
Marion, Ohio 43302

FREE details...
A DIFFERENT KIND
OF RECORD CLUB

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—guarantees satisfaction

SCHWANN CATALOG

lists thousands of titles

classical pop jazz country etc

DISCOUNT DIVIDEND CERTIFICATES

Dividend Gifts—certificates

redeemable immediately for extra discounts

NEWSLETTERS

informational news and happenings in the world of music special super sale listings

DISCOUNT ACCESSORY GUIDE

Diamond needles, cloths, tape cleaners, etc

QUICK SERVICE

same day shipping on many orders rarely later than the next several days

100% IRON-CLAD GUARANTEES

on all products and services—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...when you want...or not at all if you choose.

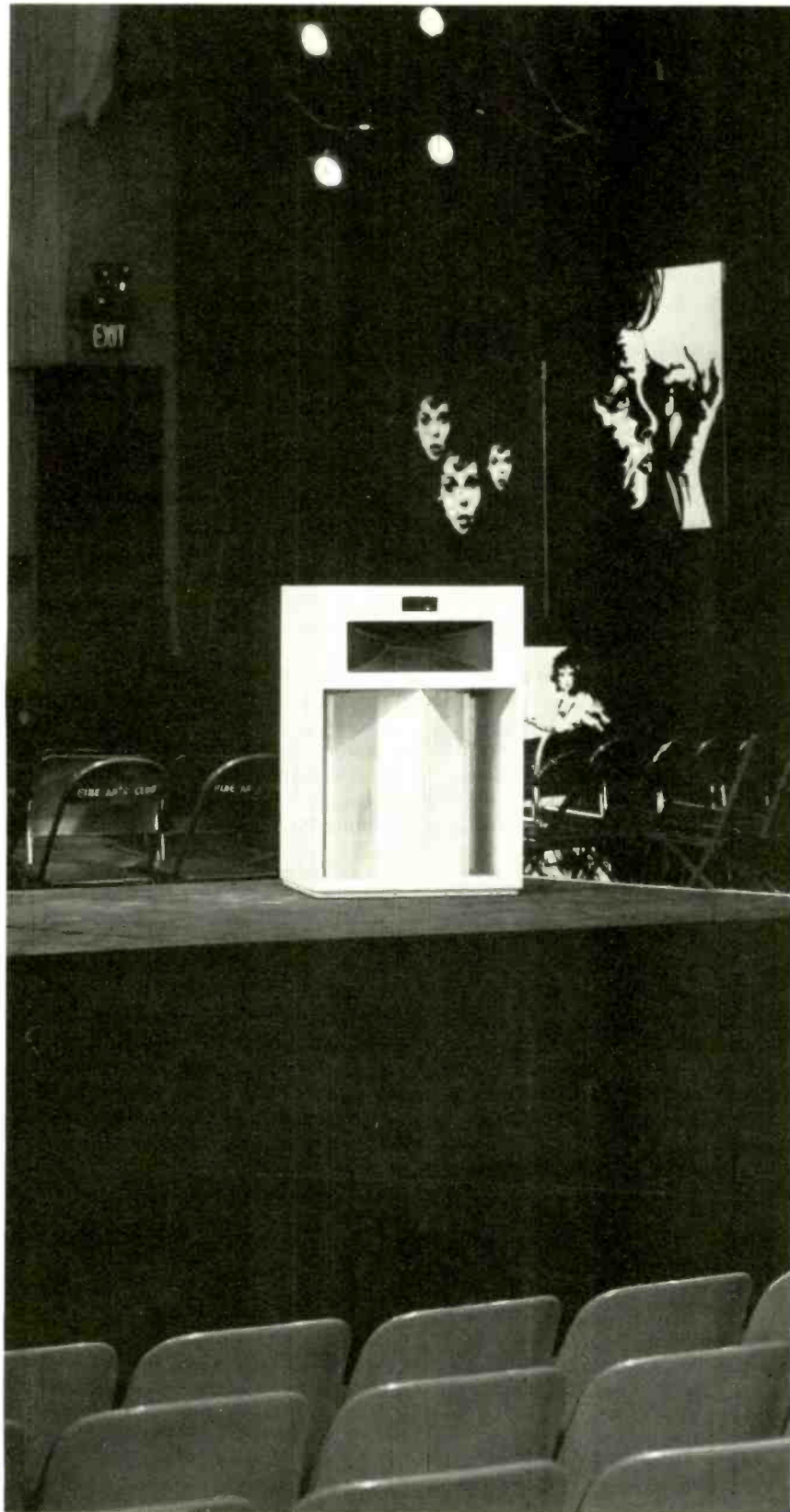
These are just a few of the money-saving reasons to write for free details. You can't lose so why not fill out and mail the coupon below for immediate information.

DISCOUNT MUSIC CLUB, INC. DEPT. 8-0279
650 Main Street, New Rochelle, N.Y. 10801

Name _____
Address _____
City _____
State _____ Zip _____

CIRCLE 30 ON PAGE 89

UP YOUR SYSTEM



The Klipsch La Scala® is the speaker musicians use. Designed for theatre use, they can fill a monster like Radio City Music Hall, an auditorium, an opera house or your house.

These high performance loudspeakers perform like no others - with far less distortion. Feed them rafter-splitting rock or a gentle ballad. The three balanced horns give it right back the way you put it in.

Because of this sound and their moderate size and weight, La Scalas are ideal for road shows or one night stands. They are available in birch plywood, raw or black. Industrial models are also available with heavy duty woofers, fiberglass exteriors, handles, aluminum edge trim and corner protection.

Up your system at home or on the road. Put your ear to La Scala and hear what you've been missing.

klipsch

Please send me your FREE color brochure on the full line of Klipsch loudspeaker systems, along with a list of Klipsch dealers

Name _____

Address _____

City _____

State _____ Zip _____



klipsch



P.O. Box 688 H29
Hope, Arkansas 71801

In Canada Superior Electronics, Inc.

The new open reel: roundup/prospects. Compared with last month's imposing roster of 1978 musicassette achievement, that of the revived open reel is modest indeed. Yet it is substantial enough to italicize anew the gross exaggeration in the reported demise of the original tape format. To be sure, only two classical labels debuted on reel last year, but two more are welcomed below and another two are scheduled for early appearance. Even more significant, the overall recorded-reel repertory is once again steadily growing—this time not only with Dolby encoding, but in processings of consistently high technical standards and with notes and texts provided.

I should warn those of you who are not Old Believers (whose faith in the reel format has never wavered and who have followed every step toward a new lease on life) that recorded open-reel production is confined nowadays almost exclusively to two manufacturers: Barclay-Crocker on the East Coast, Stereotape/Magtec on the West. The former, the mail-order reel specialist whose first productions were of Musical Heritage Society and Vanguard classical recordings and the Halcyon jazz series, last year added the Unicorn and Desmar labels; now B-C has added Entr'acte (symphonic film scores) and Argo to its catalog, with Oiseau-Lyre and Telefunken to follow shortly. Meanwhile, Stereotape/Magtec continues its increased production of Archiv, Deutsche Grammophon, London, and RCA reel editions (along with various pop and jazz series), plus a very few quadriphonic reels.

A comprehensive open-reel catalog with bimonthly "Reel News" supplements is available for \$1.00 from Barclay-Crocker, 11 Broadway, New York, N.Y. 10001. You can get Stereotape's catalog and new-release service for \$1.00 from its consumer-trade representative: The Reel Society, P.O. Box 9337, North Hollywood, Calif. 91609. (N.B.: Reel Society prices for Stereotape reels are lower than the list prices given below.)

Following are samplings of all the currently active classical reel series, including the two newcomers:

ARGO/BARCLAY-CROCKER. The first four reels (\$8.95 each), all by Neville Marriner and his Academy of St. Martin-in-the-Fields, are led in offbeat programmatic interest by E 711, a 1973 coupling of Walton's quintessentially English, neoclassical Sonata for Strings (transcribed by the composer

by R. D. Darrell

The Tape Deck

from his 1947 Quartet in A minor) with Rudolf Barshai's fabulously ingenious string-orchestra transcriptions of fifteen of Prokofiev's *Visions fugitives*. Of perhaps more substantial musical worth, as well as of wider appeal, is E 604, a 1969 program of Richard Strauss's profoundly moving *Metamorphosen* and Wagner's tenderly moving *Siegfried Idyll*, plus the limpid Adagio for clarinet and strings (with soloist Jack Brymer) attributed to Wagner. Anglophiles will revel in E 573, a widely acclaimed 1968 program of Elgar favorites: Introduction and Allegro, Op. 47; Serenade for Strings, Op. 20; Elegy, Op. 58; *Sospiri*, Op. 70; and *Spanish Lady Suite* (arr. Young).

In all of these the reel processing is first-rate, the recorded sonics still an aural delight, and Marriner's readings consistently delectable. It is only in the fourth reel, E 719, 1973 recordings of the endearing little Bizet Symphony in C and Prokofiev's *Classical* Symphony, that connoisseurs will be disappointed. No novice can fail to be enthralled by the irresistible charms of these miniature symphonies, but Marriner's performances uncharacteristically lack the subtlety and elegance of the best recordings.

ARCHIV/STEREOTAPE. A milestone of opera history enters the reel repertory with 3650 070 A (list price \$9.95): Marco da Gagliano's *La Dafne* of 1608, in a 1977 recording by mostly British soloists with the Hamburg Monteverdi Choir and Camerata Accademica under Jürgen Jürgens. The long stretches of solo declamation may seem monotonous except to specialists, but the lively choruses and piquant-timbred instrumental dances still retain vital life.

DEUTSCHE GRAMMOPHON/STEREOTAPE. The "complete" four-hand piano music of Debussy and Ravel (3650 066 M, two reels, \$19.95 list) is superbly played by the incomparable

Kontarsky brothers, superbly recorded, and superbly fascinating in its lamentably unfamiliar as well as its familiar music.

ENTR'ACTE/BARCLAY-CROCKER. Max Steiner's 1933 *King Kong* film score is heard to spectacular effect on D 6504 (\$7.95), exploiting the full powers both of the National Philharmonic under Fred Steiner and of present-day audio technology.

LONDON/STEREOTAPE. The outstanding series of complete operas is augmented by a Jussi Bjoerling recital (33254 A, \$9.95 list) featuring extended excerpts from his 1958 Mascagni *Cavalleria rusticana* plus the seven Italian arias that filled out that set and—incongruously—Lehár's "Dein ist mein ganzes Herz."

MUSICAL HERITAGE/BARCLAY-CROCKER. Pianist Claudette Sorel's grand-mannered Rachmaninoff recital (J 3338, double play, \$13.95) includes three early nocturnes, which she edited for first publication, along with romanticized, heavily pedaled, but sonically thrilling versions of the (revised) Second Sonata, *Moments musicaux*, and seven preludes.

RCA RED SEAL/STEREOTAPE. A double-play reel, ST 717 J (\$15.95 list), conveniently combines Vladimir Horowitz' two golden-jubilee programs: the Carnegie Hall live performance of Rachmaninoff's Third Concerto with the New York Philharmonic under Eugene Ormandy, and the studio recordings of Liszt's B minor Sonata and Fauré's Impromptu No. 5 and Nocturne No. 13. Horowitzians will be ecstatic; my response is more restrained.

UNICORN/BARCLAY-CROCKER. For those who know Bernard Herrmann only by his film scores, D 0332 (\$7.95) provides provocative correctives: first, a brooding 1966 string quartet (*Echoes*), recorded in 1967 by the Amici Quartet; then a more vivid 1975 recording, by Robert Hill and the Ariel Quartet, of the nostalgically evocative 1967 clarinet quintet (*Souvenirs du voyage*).

VANGUARD/BARCLAY-CROCKER. Kurt Masur's set of the five Mendelssohn symphonies with the Leipzig Gewandhaus Orchestra (Z 10133, two reels, \$29.95), a gloriously big and bold recording, is notable for infectious relish. There are certainly more virtuosic versions of the *Italian* Symphony, and perhaps of the *Scotch* and *Reformation* as well, but none that reveal a more virile, less precious Mendelssohn.

has only an external concept of history and possesses more antiquarian earnestness than musical sensibility—the task of an interpreter is to bridge history. He does not appreciate the nature and role of the recitative in baroque opera. Vivaldi constructs his work very carefully: There is only one brief aria on the whole first disc side, but as the emotional barometer rises he gradually introduces others until he reaches the great compound recitative that is the climax of the opera.

The recitatives are extensive and of prime importance in the unfolding of the drama: they must be paced and delivered with great discernment. The declamation should be impeccable; inflections, accents, and the length of syllables must be weighed, and the whole subjected to fine dynamic shadings—there are no “terrace dynamics” in opera. Above all, recitatives must never be driven. The delivery must be *senza battuta*—i.e., barlines suspended, for here the special *sung* speech rhythm takes precedence over everything.

Very little of this is realized in Scimone's direction though a student of the period should know that the Italians of Vivaldi's time had a highly tuned sense of dramatic declamation. Vivaldi's dramatic imagination is compelling, and he builds remarkable scenes, alternating secco, arioso, accompanied, bits of aria, and some vehement orchestral ejaculations. The climactic scene in *Orlando furioso* must surely be among the finest in the operatic literature, but in this performance it is ambiguity-ridden because of the contrived use of the continuo. Scimone knows that baroque composers liked to add plucked instruments to the continuo, but this was not the case with secco recitatives, unless the lute or theorbo was the sole instrument to furnish chords. He throws in everything at his disposal—harpsichord, lute, cello, organ—and keeps all of them doggedly busy. It is difficult to follow the recitatives, even when reading the libretto, without getting lost.

The most unlikely, indeed disconcerting, role is assigned to the organ. Whenever Orlando is ranting the orchestra is properly furioso, but when he breaks down in despair and meditates, the organ takes over and we listen to an incongruous quasi-church piece (at that, the organ registration is badly anachronistic). It appears that Scimone orchestrates not only the continuo, but also the moods. The ultimate in this travesty is reached when Orlando, bereft of his senses, begins to sing and dance inarticulately to a very articulate and sustained organ accompaniment. The only thing missing is “Here comes the bride”—and we come pretty close to that too.

The vocal ornamentation is puerile. Somewhere, usually toward the end of an aria, everything stops and the performer is made to sing an unaccompanied cadenza that makes one wince in embarrassment. These sad details could be multiplied, but it should be obvious to the reader that, while he will hear a great deal of fine music, largely because of the caliber of the singers, he is going to listen to an *opéra en clef*—except that the clef is missing because of the subordination of musical to historical val-

ues, and even the latter are the result of undernourished scholarship.

Marilyn Horne in the title role is superb; she is as much at home in the elaborate coloraturas in the soprano range as in the agonizing parlando in the deep alto register, and she can color her voice to suit every occasion. Victoria de los Angeles (Angelica) sings most attractively: just listen to her plangent aria “*Poveri affetti*” in the third act. Lucia Valentini-Terrani (Alcina) makes worthy company for her while Carmen Gonzales (Bradamante), a good alto, is fine in her arias but gets a little rattled when the excitement grows. The men have secondary roles (Orlando was of course originally sung by a castrato), but they do well, though Nicola Zaccaria (Astolfo) has a somewhat unsteady and dry bass voice.

The choral scenes are vivid; they are Scimone's best contribution. The Solisti Veneti play very well, and the sound is good, though the “spatial” tricks are silly. This recording is worth acquiring despite the many sparks left unkindled, for Vivaldi's genius breaks through the obstacles placed in its way. But the listener must try to forget the poorly digested historical recitatives and concentrate on the music. P.H.L.

Recitals and Miscellany

R **SIMON BARERE:** Piano Recital. Simon Barere, piano. VARÈSE SARABANDE VC 81045, \$7.98 (mono) [from REMINGTON originals, 1948–51; “not previously released].

BALAKIREV: Islamey. **BLUMENFELD:** Etude for the Left Hand. **CHOPIN:** Scherzo No. 3, in C sharp minor, Op. 39. **LISZT:** Etude de concert, No. 2, in F minor (*La Leggerezza*). *Années de pèlerinage*, Second Year: Sonetto del Petrarca, No. 104. *Valse oubliée* No. 1. **RACHMANINOFF:** Preludes: in G minor, Op. 23, No. 5; in G sharp minor, Op. 32, No. 12. *Polka de W.R.* **SCHUMANN:** Toccata, Op. 7. *Fantasiestücke* Op. 12: No. 7, *Traumeswirren*. **SCRIABIN:** Etudes: in D flat, Op. 8, No. 10; in D sharp minor, Op. 8, No. 12.

The Chopin and Liszt pieces on this recording were taped in studio sessions in 1950; the remaining items derive from acetates of live recitals at Carnegie Hall. (Barere had recorded all but five of these works for RCA and Odeon a decade earlier, but to my knowledge those 78 versions have never been transferred to LP.) Though the studio products are closer and fuller in sound, everything here is eminently listenable.

In contrast to the Barere Liszt recital on Turnabout (THS 65001, November 1974), which showed the pianist exclusively at his best, the present collection gives a fuller view. When he had his enormous technique and free-wheeling personality under control, his playing was both communicative and imaginative: The resplendent accounts of *Islamey*, with its flexible Russian songfulness in the lyric central episode, and the feverish reading of the Scriabin Op. 8, No. 10 Etude are particular triumphs, as is the old-fashioned but formidable left-hand etude by Felix Blumenfeld (1863–1931; the teacher of Horowitz), done with staggering

DISCWASHER

presents

The Clean Truth About Your Naked Stylus

When your stylus plays over one light fingerprint or one tiny “bead” of vinyl stabilizer, the clean naked diamond becomes a glazed, dust-holding abrasive weapon wearing away at your records and masking their true sound. This unseen build-up may actually hold the tracking tip of the diamond out of the record groove.



Accumulated grit on stylus that looks “clean” to the naked eye.

The SC-1 Stylus Cleaner from Discwasher is designed with a brush that is stiff enough to remove harmful accumulation, but gentle enough to avoid damaging delicate cartridge assemblies. Two drops of Discwasher's D3 Fluid add extra cleaning action to the SC-1 without the side-effects of alcohol, which can harden rubber cantilever mountings.



After cleaning with SC-1 and D3 Fluid by Discwasher.

The retractable, walnut-handled SC-1 includes a magnifying mirror for convenient inspection of stylus/cartridge alignment and wiring.

Get the clean truth from your records; get the SC-1.

SC-1 STYLUS CLEANER



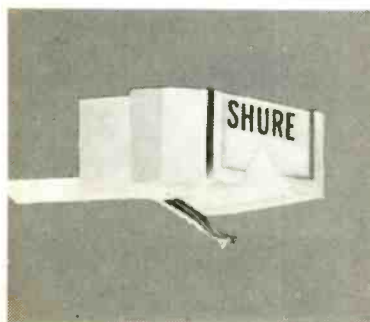
discwasher® inc.
1407 N. Providence Rd.
Columbia, MO 65201



Needle in the hi-fi haystack

Even we were astounded at how difficult it is to find an adequate other-brand replacement stylus for a Shure cartridge. We recently purchased 241 random styli that were not manufactured by Shure, but were being sold as replacements for our cartridges. Only ONE of these 241 styli could pass the same basic production line performance tests that ALL genuine Shure styli must pass. But don't simply accept what we say here. Send for the documented test results we've compiled for you in data booklet # AL548. Insist on a genuine Shure stylus so that your cartridge will retain its original performance capability—and at the same time protect your records.

Shure Brothers Inc.
222 Hartrey Ave., Evanston, IL 60204
In Canada: A.C. Simmonds & Sons Limited



Manufacturers of high fidelity components, microphones, sound systems and related circuitry.
CIRCLE 36 ON PAGE 88



Simon Barere
Enormous technique

assurance. The fleet, stylish Liszt *Leggerezza* and the sonorously energetic Chopin C sharp minor *Scherzo* demonstrate Barere's adeptness at re-creating concert hall excitement under controlled studio conditions.

On the other hand, his excess supply of facility and adrenaline occasionally prompt him to pile up sonority with jagged overpedaling and to destroy musical structure with ill-considered precipitousness. The Schumann *Toccata* is driven and incoherent (his studio version, if memory serves, was no better), and the bumping of phrases also inflicts damage on "Traumeswirren" and the Rachmaninoff G minor *Prelude*. Barere's account of the Rachmaninoff *Polka de W.R.* is reminiscent of the composer's 1928 recording, although of course some of its inimitable rhythmic sophistication and style is missing. H.G.

MSTISLAV ROSTROPOVICH: Cello Concertos—See Vivaldi: Cello Concertos.

COLIN TILNEY: Music for Virginal. Colin Tilney, harpsichord and virginal. [Heinz Wildhagen and Andreas Holschneider, prod.] ARCHIV 2533 379, \$8.98.

BULL: *Prelude*; Chromatic Pavan (Queen Elizabeth's) and Galliard; Why ask you. **BYRD:** *Prelude*; *Passamezzo Pavan* and Galliard; *The Hunt's Up*. **FARNABY:** *Why ask you*. **GIBBONS:** *Pavan*; Galliard. **TOMKINS:** *Pavan*; *The Hunting Galliard*.

In his recent recording of Byrd's *My Ladye Nevells Booke* (Oiseau-Lyre D29D 4), Christopher Hogwood vividly demonstrated how wide were the possibilities in Tudor England for the performance of "music for virginals." Indeed, until the middle of the seventeenth century the term "virginal" was a generic one referring to any stringed keyboard instrument and "virginal music" was sometimes even played on the organ.

With the two instruments used for the present recording, then, we are well within the bounds of authenticity. Three of the

pieces—the "Why ask you" variations of Farnaby and Bull and Byrd's "The Hunt's Up"—are played on a double virginal built in 1580 by Martinus van der Biest of Antwerp, while the remainder are heard on a single-manual harpsichord by Carlo Grimaldi of Messina. The date of the latter instrument (1697) may seem unduly late, but it should be remembered that Italian harpsichord construction remained remarkably standardized from at least the middle of the sixteenth century to the beginning of the eighteenth.

The "golden age" of the English virginalists lasted less than a century—from Byrd's coming-of-age to Tomkins' death—but it left its monument in a substantial body of often imaginative and virtuosic music. The selections recorded here give a nice idea of the age's chronological boundaries, as well as a representative sampling of two of the most popular forms: the pavan-and-galliard pair and song variations.

Colin Tilney is a skillful and expressive player, and he seems determined to avoid any suggestion of dullness or insensitivity in his performances. If anything, in fact, he tends to stretch tempos too much, calling excessive attention to the sectional aspects of the music. Nobody is more aware than I of the absolute indispensability of a certain rhythmic elasticity in playing the harpsichord (or organ), but in Tilney's performance of such works as Byrd's *Passamezzo Pavan* I feel a need for a firmer *tactus*, a clearer underlying pulse. Perhaps others will be less uneasy with his rhapsodic style, though, and the instruments and recorded sound are certain to give pleasure. S.C.

Theater and Film

MADAME BOVARY. Original film score by Miklós Rózsa. Royal Philharmonic Orchestra, Elmer Bernstein, cond. and prod. FILM MUSIC COLLECTION Album 12, \$8.00 plus 70¢ handling, to members only (annual membership \$5.00; Elmer Bernstein's Film Music Collection, Box 25198, Los Angeles, Calif. 90025).

Comparison—*Madame Bovary et al.*: Rózsa (soundtrack) MGM/Polydor (U.K.) 2353 095

It was inevitable that Flaubert's lurid and sensational classic novel, *Madame Bovary*, would be a prime subject for film adaptation, particularly by Hollywood's most prestige-conscious studio, MGM. Fortunately, MGM's 1949 version was graced with the sophistication and good taste of Vincente Minnelli's direction and an exquisite and sensitive score by Miklós Rózsa. (*Madame Bovary* received prior film treatment in 1934 by Jean Renoir, with music by Darius Milhaud; piano excerpts from the score are on Golden Crest CRS 4060.)

Madame Bovary was the first assignment



fact: dramatic freedom from distortion comes to a mid-priced cartridge: the new Shure M95HE...

the Shure M95HE



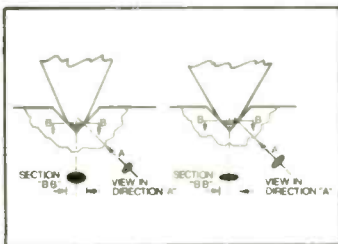
an affordable, audible improvement

One of the critically acclaimed advances introduced in Shure's incomparable V15 Type IV pickup is its revolutionary and unique distortion-reducing Hyperelliptical stylus. Now, you can enjoy this standard of sound purity in a new, ultra-flat frequency response, light tracking, high trackability cartridge that will not tax your budget: the new Shure Model M95HE.

the Hyperelliptical stylus tip



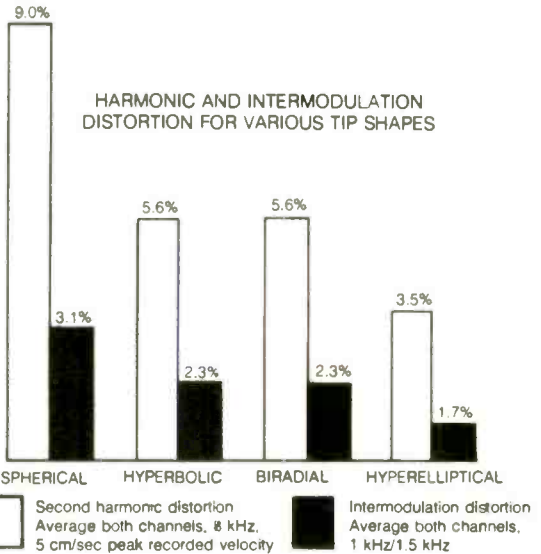
BIRADIAL (ELLIPTICAL) STYLUS SUCH AS IN M95E



HYPERELLIPTICAL STYLUS OF THE M95HE

The Hyperelliptical nude diamond tip configuration represents a significant advance in tip design for stereo sound reproduction. As the figures show, its "footprint" (represented by black oval) is longer and narrower than the traditional Biradial (Elliptical) tip-groove contact area. Because the Hyperelliptical footprint geometry is narrower than both the Biradial and long-contact shapes such as the Hyperbolic, it is pre-eminent for reproduction of the stereo-cut groove.

SEND FOR FREE BROCHURE AL600



a measurable drop in distortion

As a result of the optimized contact area of the Hyperelliptical tip, both harmonic distortion (white bars in graph above) and intermodulation distortion (black bars) are dramatically reduced.

upgrade your present M95 If you already have a Shure M95 Series Cartridge, you can improve its freedom from distortion right up to the standards of the new M95HE cartridge simply by equipping it with a Model N95HE stylus. The cost is extraordinarily low — yet the difference in sound will be immediately apparent. Takes only seconds to install — requires no tools whatsoever.

M95HE cartridge & N95HE stylus



Shure Brothers Inc., 222 Hartrey Ave., Evanston, IL 60204

In Canada: A. C. Simmonds & Sons Limited

Manufacturers of high fidelity components, microphones, sound systems and related circuitry.

YES, KITS!

Glue, Screw & Goo Your Way To
The World's Finest Speakers

SPECIAL
JANSZEN Z-40 B
BI-POLAR
ELECTROSTATIC

\$800 a pair
complete kit
(\$700 a pair, semi-kit)



The legendary performance of the Janszen electrostats are combined for the first time with an ultra-low mass, low coloration, 10" Bextrene woofer in this kit available exclusively from SONIKIT.

The enclosure walls are lined with layers of oil-impregnated felt to further insure clean, resonant-free bass.

This 3-way hybrid system uses separate, dual electrostatic elements for the midrange and high frequencies.

These high-power, ultra-low distortion, bi-polar units are loaded into carbon fiber based lenses to provide virtually omni-directional dispersion for pinpoint imaging.

Power handling: 20-100W.

Specs & Prices subject to change without notice.

Fried, Dalesford Bextrene. Others from \$150 a pair.

NEW CATALOG

"The Speaker Specialists"
Sonikit 1173F - 65th Street
Oakland, CA 94608

Here's my \$1 check (refunded with purchase)—
please send me your new catalog. HF2

Name _____

Address _____

City _____ State _____ Zip _____

LOW PRICES & RELIABILITY

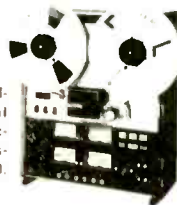
DISCOUNT HI-FI STEREO COMPONENTS

RECEIVERS . SPEAKERS .
TURNTABLES . CARTRIDGES
TAPE RECORDERS

TEAC brings it all
together

TEAC 3440

4 channel simul synch;
mic/line mixing; 2 position
bias and EQ; manual
cue; remote control func-
tion; micro switch trans-
port controls 10 1/2" reel.
Tape speed 15 and 7 1/2
ips; 1.054 pitch control.



Get our Low Price on this and
hundreds of other
components listed
in our new
FREE catalog



Send for
complete catalog
today featuring

TEAC
and famous
brands

District Sound inc.

2316 RHODE ISLAND AVENUE, N.E.
Washington, D.C. 20018
(202) 832-1900

CIRCLE 10 ON PAGE 89

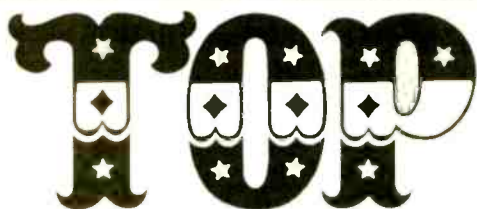
in Rózsa's newly begun MGM tenure to offer him significant potential for musical development. He took full advantage of this subject so well suited to his own Romantic sensibility and composed one of his outstanding scores, featuring several of his most gorgeous and compelling melodies. Despite the story's nineteenth-century French setting, the music is rooted in his singular Hungarian modal idiom, but this anachronism is overshadowed by the score's undeniable effectiveness, proving once again Rózsa's ability to maintain his stylistic identity regardless of a film's subject.

The emphasis in Flaubert's novel is on the scandalousness of Emma Bovary's extramarital affairs; but Minnelli and Rózsa, partly through personal preference and partly because of Hollywood's strict moral code at the time, chose instead to focus on the tragic, unfulfilled aspect of her character. This somewhat diluted interpretation was made credible by adroit direction and the poignancy and inner warmth of the music—for example, the anguished, ascending minor-key motif representing Emma; the tender, idyllic love theme for Emma and her husband, Charles; and the plaintive, yearning theme depicting Emma and her lover, Leon.

This is Rózsa's third score (following *Young Bess* and *The Thief of Baghdad*) to be recorded by Elmer Bernstein's Film Music Collection; unfortunately, it is the least successfully executed. Bernstein gives us a good deal more of the score than is contained in the brief composer-conducted soundtrack suite (on an MGM disc shared with Rózsa's *Ivanhoe* and *Plymouth Adventure*), and this additional music alone makes the disc worthwhile. But the performance is less than ideal: Bernstein dwells too heavily on the brooding elements of the score, glancing over its passion and intensity and thus shrinking its broad emotional range. This miscalculation is most apparent in the turbulent "Prelude" and the beautiful "Leon's Love," two especially moving sequences to which only Rózsa does full justice.

The most blatant misinterpretation, however, is Bernstein's treatment of the famous "Waltz" sequence, the last and most elaborately stylized of five period ballroom dances that collectively are a rare and highly successful departure from Rózsa's métier. In the film the waltz's rhythmic pulse, neurotic melodic leaps, and Ravelian orchestral pyrotechnics propel Emma into a breathtaking realization of her ultimate romantic fantasies: the brilliantly choreographed camera work and the intoxicating, accelerating music combine for a cinematic tour de force. But Bernstein's slow tempo and substitution of an abrupt tempo change for the accelerando negate much of the waltz's effect.

In addition to these problems, the Royal Philharmonic seems at considerably less than full strength, the surfaces of my copy sound like Rice Krispies, and the veiled sonics and excessive background hiss are well below current standards. (No other Film Music Collection disc can compare sonically to the superlative *Ghost and Mrs. Muir* LP, engineered by Richard Lewzey.)



DISCOUNT AUDIO

1150 N. Powis Rd.
West Chicago, IL 60185

**YOUR NATIONAL HEADQUARTERS FOR
NAME BRAND ELECTRONICS BY MAIL**

RECEIVERS • SPEAKERS • COMPACTS

MULTI-
MILLION
\$\$\$
INVENTORY

**FULL
MANUFACTURER
GUARANTEE
APPLIES
TO ALL SALES!**

**ALL ORDERS
Shipped In
Factory-Sealed
Cartons—
Most Within
24 Hours!**

TUNERS • AMPLIFIERS • AUTOMOTIVE

TOP DISCOUNT AUDIO

1150 N. Powis Rd.
West Chicago, IL 60185
(312) 293-1825

We Honor VISA and
MASTERCARD
By Phone or Mail

Call or Write for the LOWEST PRICES Anywhere!

Send catalog

MR. _____
MS. _____
(First) (Initial) (Last) (Date)

(Number and Street)

(City) (State) (Zip code)

TAPE DECKS • CHANGERS • CARTRIDGES • HEADPHONES

THE JVC CASSETTE DECK.

It gives you more of what the others wish they could.

Cassette recording takes a giant step forward with the new series of JVC cassette decks. Each is designed to give you everything you need to get the most out of any tape. And there are totally new features to help you make better-sounding cassettes.

Exclusive Spectro Peak Indicator System.

With almost recording studio vigilance, 25 instant-responding LED indicators offer fail-safe protection against distortion produced by tape over-saturation.

For the first time, you can constantly visually monitor the levels of five low-to-high musical frequency ranges. Then, on playback, the Spectro Peak Indicator actually lets you see how accurately the deck has performed.

Expanded Dynamic Range and Better Noise Reduction.

Our Super ANRS circuitry applies compression in recording and expansion in playback to improve dynamic range at higher frequencies. So distortion is eliminated in sudden high peaks of any musical

program. Super ANRS also reduces tape hiss by boosting the deck's signal-to-noise ratio by as much as 10dB over 5000-Hz.

New Head Design.

Our refined Sen-Alloy head gives you the sensitive performance of permalloy head construction, combined with the extreme longevity of ferrite, for bright full-sounding recordings.

Get the most out of any tape

Because whichever type you select, you'll extract the most from it with our special recording equalizer circuit that lets you "fine tune" the high frequency response of the deck

to the exact requirements of the tape. These innovations alone set JVC cassette decks apart from all the others. Then, when you consider our other refinements, like precision-ground capstans, gear/oil-damped cassette doors, multi-peak LED indicators, independent

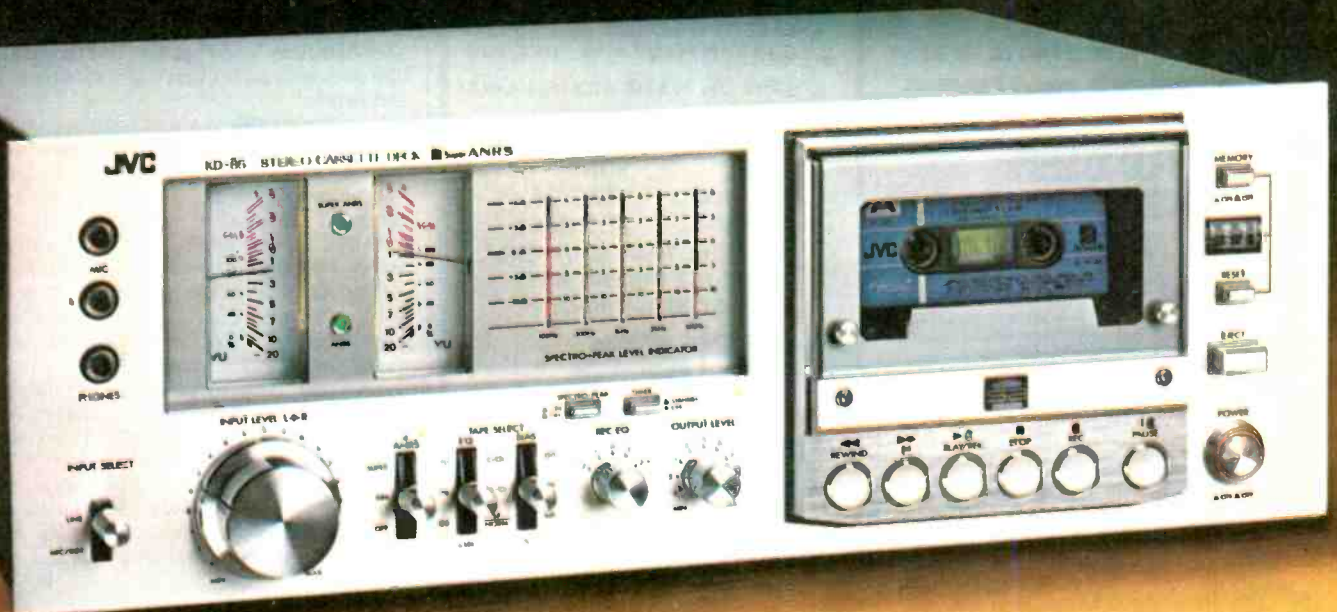
drive mechanisms, plus top performance specifications, you can understand why we say that JVC gives you more of what other decks wish they could. Visit your JVC dealer and you'll hear why.



Not all features in all decks.

Top: KD-65, KD-55, KD-25. Bottom: KD-10, KD-1770 II, KD-1636 II. Not shown: KD-2, KD-3030, KD S201.

JVC



J&R THE ONE-STOP MUSIC SHOP AT WHOLESALE PRICES

BLANK TAPES

CASSETTE TAPES

Maxell Grand Master I C 60	\$2.14
Maxell Grand Master I C 90	\$2.75
Maxell UD C 90	\$2.69
Maxell UD L 90	\$2.99
Maxell UD L 1 or II C 90	\$2.99
Maxell UD L 1 or II C 60	\$2.47
Maxell UD L 1 or II C 90	\$3.47
Scotch low noise C 90, 3 pe	\$4.99 for 3
Scotch Master I C 90	\$2.84
Scotch Master II or III C 90	\$3.29
Sony FF45000 C 90	\$3.58
TDK C C 60	\$1.20
TDK C C 90	\$1.68
TDK D C 120	\$2.10
TDK D C 180	\$2.99
TDK AD C 60	\$1.79
TDK AD C 90	\$2.52
TDK SA C 60	\$2.22
TDK SA C 90	\$2.18

REEL TO REEL

Maxell UD 35 90 1800 ft.	\$6.49
Maxell UDXL 35 90R 1800 ft.	\$6.52
Maxell UD 35 180 3600 ft.	\$14.10
Scotch 212 1800 ft.	\$4.35
Scotch 207 1800 ft.	\$6.19
TDK L 1800 1800 ft.	\$5.22

VIDEO TAPES

BETA FORMAT

Sony L-750 (2 Hour)	\$18.95
Sony L-500 (2 Hour)	\$13.85
Scotch L-500 (2 Hour)	\$13.50
Zenith L-500 (2 Hour)	\$13.95
Ampex L-500 (2 Hour)	\$12.95

VHS FORMAT

JVC T120 (4 Hour)	\$18.75
TDK T120 (4 Hour)	\$19.50
Fuji T120 (4 Hour)	\$17.95
RCA VK-250 (4 Hour)	\$18.95
RCA VK-125 (2 Hour)	\$14.95
Parasonic NVT-120 (2 Hour)	\$18.95
Parasonic NVT-60 (2 Hour)	\$14.95

Minimum Order 12 Tapes - 100% Guaranteed.

CARTRIDGES

audio-technica

AT-20 SLA	\$119.00
AT-15 SA	\$85.90
AT-14 SA	\$48.95
AT-12 SA	\$31.90
AT-10	\$12.00

SHURE

V15 TYPE IV	\$89.90
V15 TYPE III	\$64.95
M57E	\$29.75
M7ED	\$21.00
M7AE	\$13.80
M70E	\$13.90

STANTON

8815	\$172.50
681EE 5	\$65.00
681EE	\$42.50
680EE	\$24.90
500E	\$11.90

EMPIRE

2000Z	\$59.90
2000T	\$31.50
2000E III	\$19.50
4000D	\$29.90

PICKERING

XV15 1000E	\$39.95
XV15 750E	\$37.50
XV15 625E	\$25.77
XV15 400E	\$22.45

HEADPHONES

SENNHEISER

HD 44	\$23.88
HD 400	\$48.88
HD 414	\$65.28

KOSS

PRO 4AA	\$39.90
PRO 4AAA	\$48.00
HV 1	\$29.97
HV 7LC	\$35.97
K 6A	\$16.17

HOW TO ORDER: For shipment within 48 hours, send money order or certified check. Two weeks delay on personal checks. Please add \$3.50 per order for shipping & handling. (\$5.50 for orders outside U.S.). N.Y.S. residents add tax. No P.O.D.'s. All merchandise 100% guaranteed, brand new & factory fresh.

J&R MUSIC WORLD

33 PARK ROW, DEPT. HF, NEW YORK, N.Y. 10038
CALL TOLL FREE (800) 221-8180
CALL OR WRITE FOR FREE CATALOG

Hi-Fi Buys

ON PIONEER Technics
KENWOOD Sansui
AND OTHER FAMOUS BRANDS

KENWOOD KR-4070
AM/FM RECEIVER
40 watts RMS, at 8 ohms, no more than .05% THD.

PIONEER HPM-100

Technics SL-230
Automatic single-disc FC servo belt-drive turntable.

SANSUI AU-717
85 watts per channel with no more than 0.025% total harmonic distortion.

PIONEER RT-707

OPEN REEL, AUTO REVERSE PLAYBACK TAPE DECK

CALL TOLL FREE 800-638-0935
MON.-FRI. 9-8, SAT. 9-4

Orders shipped within 48 hrs. • Phone and COD orders accepted • Use Visa, Master Charge, or NAC • Call or write for quotes • Catalog available upon request • All equipment factory sealed with full warranty.

Hi-Fi Buys VISA

1362 HOLTON LANE
LANGLEY PARK, MD. 20783
(301) 434-5330

On the plus side, Christopher Palmer has done an impeccable job of reconstructing the score from source materials and a tape of the complete film soundtrack. R.F.

THE BOYS FROM BRAZIL. Original film soundtrack recording. Composed by Jerry Goldsmith, National Philharmonic Orchestra, Jerry Goldsmith, cond. and prod. A&M SP 4731, \$8.98. Tape: CS 4731, \$8.98, BT 4731, \$8.98.

For this contrived and preposterous, though quite entertaining, thriller about the cloning of Adolf Hitler in South America, the amazingly fertile and gifted Jerry Goldsmith has come up with a typically clever and apt musical conceit. The main theme, a Rosenkavalier-type waltz gone ponderous and sour, is gradually "decomposed" into a series of progressively pathological mutations that, interspersed with Wagnerian dying cadences and Mahleresque echoes of the Ländler, results in a kind of Teutonic *La Valse*.

Goldsmith has marshaled all his inimitable melodramatic trademarks—the abrupt, portentous plunges into pounding double meters, the whine of divided strings, the muffled off-beats of an asphyxiated death march—which came to prominence in his landmark score for another Franklin P. Schaffner fantasy, *Planet of the Apes*. There's no doubt that, like *Omen I and II*, this is thoughtful and strikingly original film music from a conceptual point of view, and that it is highly effective in reinforcing the film's aura of historical as well as potential cataclysm.

In fact, there are times, as in much of Goldsmith's work, when the music on the soundtrack projects a far more subtle and sophisticated sense of desolation and dislocation than the simpliminded antics on the screen. Even this fine score partakes somewhat of the film's basic artificiality and banality in its insistent reliance on that battered waltz theme. Moreover, the element of tenderness and compassion often present in Goldsmith's best thriller scores, such as *Seconds*, *Capricorn One*, *Damnation Alley*, and even *Coma*, is totally lacking, along with the tragic despair of his greatest dramatic efforts, like *Sand Pebbles*, *Blue Max*, and *Papillon*. But then, this film does not call for that order of intensity and depth.

Nonetheless this is a distinguished addition to the already enormous and un-faillingly vivid Goldsmith canon on disc. The uninterrupted suite format of Side 1 enhances the music's continuity and cumulative power, while never duplicating the two substantial cuts on Side 2, which follow the inevitable pop-vocal throw-away. The muscular playing of the National Philharmonic, the realistic but not exaggerated engineering, and the composer's own hand as producer all contribute to this release's authenticity and permanent value. A final word of praise is in order for Goldsmith's long-standing but relatively unsung associate, orchestrator Arthur Morton, who by now must have developed a sixth sense for anticipating the composer's instrumental and textural requirements. P.A.S.

I-HF

name _____

address _____

city _____ state _____

zip _____

MAIL THIS COUPON AND WE'LL SEND YOU THE BEST SPEAKER CATALOG YOU EVER READ!

No kidding. Speakerlab's catalog took longer to write than some of our competitors have been in business. In fact, we created an industry by "building great kits so you can afford great speakers." Our catalog is an invaluable manual of speaker function and design. And, it will introduce you to the finest speaker kits made anywhere... with the strongest money-back guarantee. Find out for yourself...FREE, FREE, that is. Mail the coupon now.

Speakerlab

Dept. 2-HF, 735 N. Northlake Way
Seattle, WA 98103

SAVE!

MONEY • TIME • FREIGHT

QUALITY STEREO EQUIPMENT AT LOWEST PRICES.

YOUR REQUEST FOR QUOTATION RETURNED SAME DAY.

FACTORY SEALED CARTONS—GUARANTEED AND INSURED.

SAVE ON NAME BRANDS LIKE:

AKAI PIONEER
B.I.C. SANSUI
DUAL SONY
KENWOOD TEAC
MARANTZ TECHNICS
AND MORE THAN 50 OTHERS

BUY THE MODERN WAY
BY MAIL—FROM

illinois audio

12 E. Delaware Place
Chicago, Illinois 60611
312-664-0020

Finally. Video technology comes to audiotape.

One of these cassettes can reproduce up to 4,000,000 hertz with extreme linearity. Its tape surface is mirror-smooth, because the slightest variation would severely limit its remarkable response and dramatically increase noise. The millions of magnetic particles on its surface are incredibly uniform in size, orientation and distribution. To increase output and dynamic range. Minimize distortion. And reduce noise even further.

The result is our highly-acclaimed Beridox videocassettes, which utilize a special magnetic particle that provides great stability and significantly lower print-through. And set new performance

standards in $\frac{3}{4}$ " and $\frac{1}{2}$ " video reproduction. Just as Fuji two-inch videotapes have done in network broadcasting.

Now, with high-bias Fuji FX-II, our engineers have brought the benefits of Beridox video technology to audiocassettes. Delivering linear response, low noise and wide dynamic range to fully utilize all the performance built into today's cassette tape equipment.

Audition an FX-II cassette at your Fuji dealer today. And hear a breakthrough in video become a new milestone in audio.

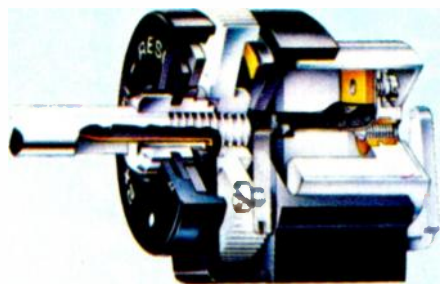
FUJI

Magnetic Tape Division of Fuji Photo Film U.S.A., Inc.
350 Fifth Avenue, New York, New York 10001



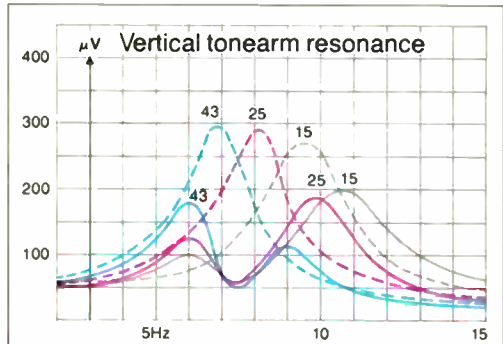
If the bass isn't as clean as you'd like...

The problem may be your tonearm. Not your amplifier or speakers.



Cutaway view of anti-resonance counterbalance.
(A feature of Dual models 604, 621, 721 and 1246)

Solid lines show effectiveness of anti-resonance filters in damping resonant amplitudes of three different cartridges (compliance 15, 25 and 43 x 10⁻⁶ cm/dyne). Broken lines show higher resonant amplitudes with conventional counterbalance.



If you've been wondering why your high-powered amplifier and great speaker system don't deliver deep bass as cleanly as you'd like—especially at high listening levels—the problem may well be the effects of resonance on the stylus.

Ideally, the stylus should move only in response to the contours of the record groove. But in reality, the stylus tip also responds to various resonances: its own (with the stylus shank) and the combined resonance of the tonearm/cartridge system.

These subsonic frequencies, though inaudible in themselves, can have very audible effects. Especially with warped records. They can drain amplifier power and cause excessive movements of the low frequency driver. They can cause the tonearm to vibrate and even to momentarily leave the groove. All of which results in audible distortion.

Competent tonearm designers know all this and do their best with materials, masses and compliances to establish the inevitable resonances at the least harmful frequencies (usually between 8 and 10 Hz) and with the lowest possible amplitudes.

Dual's tonearm designers have taken a significant step beyond this.

The unique counterbalances of our direct-drive models (604, 621 and 721) and our top belt-drive multiple-play model (1246) contain two mechanical anti-resonance filters.

These are specially tuned to damp resonant energy in the tonearm/cartridge system and chassis.

The startling effectiveness of these filters in lowering the resonant amplitude of three cartridges having different compliances can be seen in the graph. Whether the improvement in the bass is subtle or obvious to you depends on the other components and your listening environment.

We've prepared a technical paper on this subject which we'll send to you if you write us directly. You may discover that you don't have to replace your amplifier or speakers after all.



For the life of your records

United Audio, 120 So. Columbus Ave., Mt. Vernon, NY 10553



Chick Corea's Musical Macrocosm

by Len Lyons

In Hermann Hesse's novel *The Glass Bead Game* Magister Ludi, the game's master, can condense all of the world's scientific and aesthetic principles into a musical microcosm. Chick Corea aspires to just the opposite. He sees himself as expanding and creating a vast musical macrocosm. "On one level I am sitting at the keyboard playing the piano," he says. "Yet I can also sit there and play the song, so my attention isn't on my fingers, but on the music. I can expand that into the group, letting my attention and intention go all through the other musicians. We're not just playing a song, we're playing a performance—a continuous two-hour communication."

In spite of these rather grandiose-sounding aspirations, Corea is an intense worker and very much the pragmatist. He'd have to be. Aside from managing his own career and that of three other jazz artists, since leaving Miles Davis' band in 1971 this composer/ar-

ranger/pianist has been the leader on two dozen albums (that's an average of three per year) in a variety of musical settings: acoustic free jazz with the group Circle, fusion with Return to Forever, a little of both with his current thirteen-piece ensemble, and solo piano.

The guiding principle behind this whirlwind of activity is scientology, which Corea calls the second greatest discovery of his life after music. He first took L. Ron Hubbard's writings on dianetics to heart in 1970 because they seemed to simplify his life, and they still influence his approach to composing and producing. "The mechanisms of the mind, when uncontrolled, get in the way of a person's intentions," he explains. "If you create, the best way to do so is without these mechanisms. This will increase your clarity."

This helps to explain how his new album, "Secret Agent," was written, recorded, and mixed in only



Chick and Return to Forever's cofounder, Stanley Clarke

twenty days. "When I'm in the studio, I know exactly what I'm going for, so I can make my decisions real quick. I'm not one to deliberate over alternative A and alternative B for several days to see which one I want to use. It's a matter of knowing yourself. For me, it's 'this works, this doesn't.' Otherwise, it feels gluey to me. . . . I used to ponder—maybe ten years ago—but Scientology has helped me get through those barriers."

Corea is equally pragmatic in conversation. He says he always knew he'd be a musician so he "smiled and glibbed" his way through nonmusical subjects in school. (His only formal study was with Salvatore Sullo, a classical piano teacher.) Besides, real life was going on at home: His father, Armando (after whom he is named), was the leader/arranger of an eight-piece society band in Boston. "He wrote out arrangements of popular tunes for me," Chick recalls. "He always kept them to my level, so the language of music became familiar to me."

Chick often played with informally organized bands at Bar Mitzvahs and weddings. In more inspired moments he copied Horace Silver's entire repertoire off the albums recorded with Blue Mitchell and Junior Cook. "That proved to be an extremely valuable stage," he says, "because I really learned how to duplicate music from a recording." Miles Davis was his idol during these years.

Chick moved to New York City after high school

because that's where all the musicians were. He entered Columbia University but left after one month and decided to try for Juilliard instead. After practicing for ten months (eight hours a day) for the audition, he was accepted as a piano major. This time he lasted two months: "Suddenly, I told myself, 'Cut out the protocol, and start doing what you really want to do.'" He took a small apartment on Seventy-first

One day a call came from Herbie Hancock . . .

Street and worked with as many bands as possible. He was soon accompanying Sarah Vaughan.

One day a call came from Herbie Hancock who was on his honeymoon and could not return in time for a Miles Davis club date in Baltimore. "I freaked out," Chick says. "Playing with Miles's band was the oldest of my goals. I got wild on the phone trying to find a replacement for Sarah. Bob James, who had accompanied her before, did the gig for me."

He called Miles immediately to see when they were going to rehearse. "Just play what you hear," he was told in Davis' terse, hoarse style. He rushed to Baltimore early in an attempt to go over the band's repertoire, even though he knew all their albums. "It didn't

make any difference," Corea recalls. "That band never played tunes the way they sounded on the albums—I mean 'Nefertiti,' 'Miles Smiles,' all those albums with Wayne Shorter. I had to get up on stage with just that one instruction.

"The band took off like a rocketship on the first piece. It was *Agitation*—I'll never forget it. It was like the shock of suddenly traveling five hundred miles per

**"With Miles there were grunts,
glances, smiles, and
no smiles."**

hour. I just hung on. I knew they were playing tunes, but they had them so facile and abstracted that not even a musician's ear could tell what chord changes were going by.

"After the set I went up to the bar to buy myself a drink. Miles came up behind me and whispered in my ear, 'Chick, you're a mutha.' That was it! What more could I ask for?"

Subsequently, Corea spent several years with the band, trying to soak up Miles's creative visions. He attempted to find out what was needed from him as a pianist, but it wasn't easy. "With Miles there was never any sitting down to discuss the music, like, 'a little more of this, less of that.' There was no analysis, no instructions. There were grunts, glances, smiles, and no smiles." The adventure with Miles lasted three years. Then he was on his own.

He and Davis' bassist Dave Holland, who rented a loft in his building, were constant companions during this time, and together they formed the basis of Circle. Completing the group were drummer Barry Altschul and, occasionally, multireed player Anthony Braxton. "The goal," Corea recalls, "was to investigate and expand the quality of communication between us. It was based on pure improvisation—we had no prior agreements melodically, harmonically, rhythmically, or structurally. That game can be fun, but it can get weird. When you don't have rules or agreements, you begin to wonder what the point is of what you're doing. What made it work was the musical conversation, friendship, and the desire to create something together."

Corea sees Circle as a period of searching, and, indeed, the public missed its message entirely. Return to Forever, formed with bassist Stanley Clarke, was thus a conscious attempt to reach out to the audience. And it worked. RTF's synthesis of jazz improvisation with rock elements (and, on the first two of its eight albums, the novel vocals of Flora Purim) won them a Best Jazz Performance Grammy in 1975 for "No Mystery," and in 1977 they were named Top Jazz Group by *Playboy*. RTF, Weather Report, and Hancock's Headhunters became the triumvirate of the new jazz. RTF's albums remain Corea's best-sellers, topping

out at 300,000 for "Where Have I Known You Before."

Although he has won nine best-keyboardist polls since 1973, Corea's favorite vehicles for communication are composing and arranging, particularly in the form of the suite. "A suite is like a collage of themes with transitions between them," he says. "It's like traveling down one road and seeing many different scenes along the way. It's episodic, as opposed to playing one theme, varying the theme, and then returning to it." His suites are playful and varied in texture, and listener response has been good despite the unconventional format. "The Leprechaun" ('76) won two Grammys, and "My Spanish Heart" ('77) though it is a double-disc set, has sold 170,000 copies.

"Secret Agent" departs from its predecessors in two respects. First, it is made up of short songs ("each one makes only one statement"), with Corea taking airplay and "the variety of situations in which a person listens to music" into consideration. Second, all but one of the cuts have been built from basic tracks and overdubs. (He previously had recorded his group live.) His goal is to "treat a record for what it actually is and can be," not simply as a documentation of the band's performance.

The work was done at Producer's Workshop, a small studio in Los Angeles. "All of the basic tracks were me with bass and drums," Chick explains. "In some cases the overdubs were improvised. On *Golden Dawn*, I brought the tapes home and improvised some Mini-Moog overdubs on my four-track. Later, I transcribed it and wrote a second harmony part. But on *Gleb St. Blues* and *Central Park*, the overdubs were completely scored before the basics were even laid down."

This was not the case on Bartók's Bagatelle No. 4.



Herbie Hancock and Corea

"I found a collection of records on a Hungarian label—performances of early Bartók orchestrations. Only the bagatelle wasn't something he had composed; he arranged it. After reading the lyrics and hearing it, it impressed me as a blues—it's the same sort of communication, but from a different culture. I started playing around with it at the piano, imagining a choral background with some wailing going on over it. That was my basic concept.

"The piano became the basic track, and I played the song through three times. I added the Oberheim 8-Voice at a choral setting on the second and third choruses. Then Gayle [Moran—his roommate and protégée] sang the same notes as the Oberheim, and I improvised Mini-Moog over that."

Chick's favorite synthesized sound is the whimsical, whistling Mini-Moog solo voice that has found its way onto every album. (Listen to the opening licks on the first track of "The Leprechaun" for example.) "If I

could play trumpet or sax, I think that's just about how I'd sound. I really enjoy the ability to bend a note, modulate a note, and do things with timbres that the piano doesn't offer. As a piano player—especially a jazz piano player—I'm primarily in the rhythm section. When I do solo, unless conditions are A-1 optimum, I never really get to sing that solo line. That's what I get to do with the Mini-Moog. As far as the other instruments go [the list is long: Moog 15, Polymoog, Arp Odyssey, Oberheim, MXR Digital

"I think you can really interact with a part that's already been put down."

Discography (For Works as a Leader)

Circle

Circling In Blue Note BNLA 472H2
Ciculus Blue Note BNLA 882J2
A.R.C. ECM 1009
Paris Concert ECM 1018/19ST
Chick Corea Blue Note BNLA 395H2

Piano

Piano Improvisations, Vol. I ECM 1014
Piano Improvisations, Vol. II ECM 1020
Crystal Silence (with Gary Burton) ECM 1024ST

Return to Forever

Return to Forever ECM 1022
Light as a Feather Polydor PD 5525
No Mystery Polydor PD 6512
Where Have I Known You Before Polydor PD 6509
Hymn of the Seventh Galaxy Polydor PD 5536
Musicmagic Columbia PC 34682
Romantic Warrior Columbia PC 34076
Return to Forever Live! (4-record set) Columbia PC C4X 3535

Ensemble

The Leprechaun Polydor PD 6062
My Spanish Heart Polydor PD 2-9003
The Mad Hatter Polydor PD 6130
Friends Polydor PD 6160
Secret Agent Polydor PD 6176

Delay, Yamaha organ, Eventide Harmonizer], I rely on what sounds I've been able to acquire on them thus far. I stopped studying them actively a few years ago."

For the critic, Corea's multiple overdubs and elaborate arrangements raise doubts about his sense of continuity with his improvisatory jazz roots. Spontaneous interplay between musicians cannot be preserved through successive overdubs. "Agreed," says Corea. "But the art of overdubbing requires being able to re-create a mood or feeling. If I know what feeling I'm going for, I should be able to get the effect by overdubbing, too. I think you really can interact with a part that's already been put down. I agree it's a time warp, but it can be done."

And how is his note-for-note arranging and composing compatible with spontaneity? "The fixed idea is that spontaneity equals differentness: If you're not playing something new, it's not spontaneous. This isn't true. The only prerequisite for spontaneity is having all of one's attention on the moment." The idea is that something needn't be new; it must be *now*. "Structuring music is a way of gaining a clearer idea of what you're trying to communicate."

Which brings us back to clarity, communication, and scientology, the very purposes and principles behind Chick's macrocosm. It extends far beyond what we've covered here. For example, his production company—Chick Corea Productions—is about to acquire a new 24-track studio. Also he has set aside performing activity through the summer to make time for composing a concerto for piano and orchestra. And last month he moved from Polydor to Warner Bros. (Return to Forever will remain with Columbia), where he will record as a solo artist and produce Gayle Moran. To what extent can Corea create his musical macrocosm? How widely, and on how many levels, can he communicate? At worst, he will be remembered in some distant day as a skillful musician who captured the public's fancy for a decade or more; at best, a composer who dissolved the boundary between serious music and pure fun. ■

The Oldest Established Permanent Floating Disco in New York

by William A. Kanner



Stoy's chief deejay Gary Waskow copes with the elements during an outdoor job

A young lady in jeans and a sweater answers the phone's second ring: "Stoy, good morning." While *stoy* means "stop" in Russian, and this office—with its record-lined walls and large, mysterious-looking black boxes scattered about—could easily be a covert KGB operation, in fact its occupants specialize in one of America's favorite pastimes. Stoy is among the country's oldest and most well established mobile discos, providing music for dancing wherever it's needed.

The author is a free-lance audio journalist.

With the current disco explosion, businesses like Stoy are cropping up in every major city. "You'll find a bunch in Los Angeles, in San Francisco, and even in a city the size of Atlanta," says founder/president Norman Dolph. One difference is that Stoy is older than the rest; another is in the music it provides. "'Mobile Disco' is a somewhat misleading term for us," Dolph says. "We play everything from Harry James, to Fifties do-wop and the Beach Boys, to Grace Jones and the Village People. Besides, we got into it in the early Sixties, when disco music wasn't even

around.”

Dolph is a New Yorker from Tulsa, Oklahoma via Yale, from which he graduated in 1960 with a degree in electrical engineering. His first job was with the Custom Manufacturing Division of Columbia Records, so Stoy started as a part-time operation. “I liked art, paintings and such, but couldn’t afford to buy them. I would do a gig at an artist’s opening in return for a piece of art. From there it grew.”

People who attended the openings would ask him to bring his turntables, records, speakers and (sometimes) lights to fiestas they were planning. What does he charge when a nice painting is not available? Well, that depends. It’s a flat music rate regardless of whether the gig is one hour or all night. But there’s also a charge for transportation: A party fifty miles away is more expensive than one down the block. A weeknight costs \$225, weekend rate is \$300. If you want lights, add another \$125.

So what’s the advantage to having records when you can hire a decent band for the equivalent? Dolph explains, “Each cut we play already has an investment of \$15,000 in the music. That’s \$15,000 every three minutes in musicians, orchestrations, recording, and so forth. Compare that with a live band and see what you come out with. We’re a bargain.”

At present, Dolph has three deejays working for him, one of whom is the young lady who answers the phone. He believes that his spinners must first and foremost have affable personalities. “If they can deal with the public, I can teach them the music.”

And teach he does. Dolph is gradually disengaging himself from deejaying because the repeated exposure to music at disco volume has impaired his

**“I think it’s possible
for a good deejay to go from
Lester Lanin to Bohannon
in a half hour.”**

hearing. “It’s subtly subversive,” he says. “You almost don’t notice your hearing’s going, but you find yourself straining to hear people talk in a crowded restaurant or asking people to repeat things.” Understandably, he is now a devout believer in ear protection and rarely leaves home without at least one set of earplugs.

His intention to devote more time to songwriting is the other, more positive reason Dolph is phasing himself out. If you look at Jane Olivor’s current LP, “Stay the Night,” you’ll find that he wrote the lyrics to the title cut. (“I’m not going to get any real money for that until the summer,” he laments.) That song and the 1974 hit, *Life Is a Rock (but the Radio Rolled Me)* are among his better-known works.

Norman’s heir apparent and longtime friend is Stoy’s general manager and chief deejay, Gary Waskow. Recently I observed Gary and trainee Elizabeth



Waskow and Dolph at private party at Rockefeller Center

Henry in action at a posh benefit—black tie, celebrities, politicians galore—in the grand ballroom at New York’s Waldorf Astoria. Since Stoy’s equipment is designed to be handled by one person, each piece is either on wheels or can be stacked onto one that is. In rolled two large JBL speakers, two slightly modified Dynaco tubed amps with boxes of records stacked on top, and a long box that housed the mixer and two Pioneer PL 61 turntables (also modified). Next came a box of records, followed by another box of records, and another box of records. Stoy comes prepared.

Gary’s setup is only one of Stoy’s four systems, each of which has been refined in various ways to suit the task. “The basic system starts out with a pair of Dynaco tubed amps,” Dolph explains, “which produce 70 watts per channel. These units are getting harder and harder to find, but they are extremely reliable. Since they are designed as home units, they are not perfectly suited for us, and over the years I’ve adapted them. We found, for instance, that the on/off switches were particularly prone to failure in constant use, so we eliminated them. We also put a hole in the cabinets so the bias control, which normally would be set and forgotten, can be adjusted. We also brought the fuses to the outside.



Bill Kanner

“Anything that can roll, rolls”

"The turntables are belt drive units. Again, we've outboarded the fuses and disabled the cueing. The tables work reliably, they are a lot lighter than the standard direct-drive units now in vogue, and they have a higher starting torque than all but the heaviest direct-drive models. In fact, I'm going to have a little difficulty replacing them.

"The tables feed into Shure mixer/pre-amps, and the speakers are generally JBLs or a facsimile. One set we're using has JBL drivers, but it's assembled by somebody in Maryland.

"The keynotes of our operation are portability and reliability," Dolph continues. "We have simplified everything for easy access and made everything easy to transport—anything that can roll, rolls. I think we are successful because we are reliable. In fifteen years we've had very few equipment failures. Generally, if we have a problem, like a fuse or a tube going, we'll have one table down only for a couple of minutes.

"The worst thing that can happen is permanent silence," says Dolph. "The second worst thing that can happen is temporary silence." This means not only having the right music and plenty of it, but also having fall-back gear on hand in case of mechanical breakdown. At the Waldorf, for instance, Gary had complete sets of spare tubes and fuses for both the amps and turntables, and extra cartridges.

Nonetheless, things can go wrong. Dolph recounted his one serious nightmare story—when he had to shut down for an hour. "We went into a room that had dimmed outlets and we didn't know it. First we just thought we blew a set of tubes. We replaced the tubes and the second set blew. Then we discovered the problem, found some more tubes, taped the dimmers in the open position, and were back in business. One result of that experience is that we have developed a list of rooms and halls with dimmed outlets."

Technically that makes for an excellent party. If the machines work, then there'll be music, but what about the kind of music? "We generally have a pretty good idea what people want to listen to," Dolph explains. "Country club crowds want everything from Big Bands on, kids are generally into '50s and disco. I think the surprising element is the universality of disco. It's the great equalizer. Since *Saturday Night Fever* and *Grease*, even the older elements in the parties we work respond. There's no longer a feeling that the music is beneath them. They'll get up and dance. Also, we talk to the host or hostess to find out what kind of music he or she would like to hear."

With 10,000 discs to choose from, the odds are good that Stoy's clients will get what they want. Part of the company's varied and extensive library is made up of the vintage collection Norman started with. Nowadays some record companies provide promotion copies directly but most of the hard-core disco material comes through the New York Record Pool for disco deejays. The Pool acts as a middle man between

record companies and legitimate disco operations by supplying the latter with the week's current releases as it receives them free-of-charge from labels. This enables record companies to get feedback on their product, and, since the Pool is a members-only operation, it saves labels the hassle of credibility checks.

How do the deejays decide which discs to take to which gigs? "Well, we take a wide, basic selection and, for a large, heterogeneous party, we'll go through a variety of genres," says Dolph. "I want everyone to know that we have the kind of music they like. I don't want anyone to feel embarrassed about coming up and asking for something. I think it's possible for a good deejay to go from Lester Lanin to Bohannon in a half hour."

Gary's evening at the Waldorf, for instance, was a self-contained course in popular music from the Thirties to the late Seventies. His first pick had been a big band number, "but the man in charge felt we should go disco, since the affair had been billed that way," says Gary. So he put on *Tangerine*. "I would have taken longer to get there. Show them the music they're more comfortable with first."

In 1978 alone, Stoy did over three hundred parties. "We've done everything—" says Gary "from the new *Life* party aboard the Queen Elizabeth II to weddings, proms, Bar Mitzvahs, dinner parties, and country club socials. One of the most unusual gigs was a recent one—a birthday party for a dog.

"Really. It was in one of those high-rises over the bridge in New Jersey. Apparently when one of the building's dogs has a birthday, his owner gives a party for all the other dogs and their owners. They've had parties at clubs and on boats. This was a disco held in the complex's party room, complete with catered food and personalized match books.

"The dogs were very well behaved. Mostly they just sat near their master's chairs and ate some of their presents. A few got nervous and had accidents. But I



Elton John (foreground) was the host, Stoy provided the music

think what really threw me was how much masters really do look like their dogs."

One of the more unusual aspects about Stoy is its guarantee: "If you don't have a sensational time, you don't pay for it," says Dolph. (Ironically, the one person who called him on that offer has since become one of his best customers.) Since that can cost him money and is not entirely dependent on his own performance, Dolph has developed a few rules for the successful party: One is to overcrowd it—if the room can handle fifty people make sure at least seventy are invited. Close quarters means that no one can hang back and the party will look very active at all times. Another is to avoid putting the bar in a separate room or a long way from the music. If a drinker is near the music and hears something he likes, he'll put the drink down and jump in. If, however, he has to make a "policy decision" to quit the bar and go to the dancing area, chances are he'll never get there. The effect should always be of one big party, rather than three little parties with one centered around the food, one around the liquor, and one around the music. Also, chairs are death: "Let 'em stand," says Dolph, "then they'll dance."

"But we can make a go of just about any situation," says Norman. "The trick is to have something for everybody. We always carry forty times more mu-

sic than we expect to need, and most of it is clustered around a particular style. If the host says he likes John Denver, we can be pretty sure that he'll like Joni Mitchell. If somebody says that he likes Glenn Miller, we know that other big bands will go over well. But we try to have ourselves covered with other kinds of music as well.

"While having people feel comfortable enough to come up and make a request is what we strive for, sometimes it can be a pain in the neck," Dolph continues. "I remember once a few years ago we were doing a high school prom and one girl came up and every few minutes she would ask for *Rock On* by David Essex. I told her that I'd play it when it fit in. Suddenly I looked down at the table and discovered she had put the disc on it. I ostentatiously took it off, waved it in her face and broke it over my knee. A few minutes later she came over and asked if I had *another* copy of it! But that was the only time we've ever really had trouble that way."

Dolph probably knows his way around the disco business as well as anyone in the country, and he has worked in every aspect of the music and recording industry. What kind of music does he listen to? "Well, my Oklahoma upbringing leads me to Taj Mahal and Doctor John, but my real love is Arnold Schoenberg. I have his complete recorded works." ■

BUY A SPEAKER SYSTEM YOU WON'T OUTGROW.



DQ-10 LOUDSPEAKERS



LP-1 VARIABLE LOW PASS FILTER



MX-1 PASSIVE MATRIXING CROSSOVER



DQ-1W LOW-BASS MODULE

Hi-Fi doesn't have to become "habit-forming," and yet, equipment which sounds fine when you first purchase it, often sounds "flawed" over time. Most likely, the equipment doesn't deteriorate—your listening becomes more acute.

To break the "speaker-switching habit," select loudspeakers that have demonstrated their ability to satisfy critical listeners over long periods of time. The Dahlquist DQ-10's have earned consistent "rave" reviews from their introduction in 1974 to this date.

You still may want to upgrade your system in the future, and Dahlquist loudspeakers are designed to grow with you. The DQ-10's interface perfectly with the Dahlquist DQ-1W sub-woofer. By using the Dahlquist MX-1, you can add a DQ-1W to your system without requiring an extra amp. With the Dahlquist LP-1, you can add either 1(mono) or 2(stereo) DQ-1W's as part of a bi-amplified system.

If the price of DQ-10's (\$425. each) seems expensive at first, remember that they are truly the speaker system for today *and* tomorrow. In the long run, spending a little more than you planned will save you much more than you expected.

For Further Information Write To:

DAHLQUIST

27 Hanse Avenue, Freeport, New York 11520

Input Output

RMI Keyboard Computer KC-2. No, it's not a synthesizer, or a piano, or an organ. The KC-2 is described as a Musical Digital Computer, but lest that frighten you away, let me say that it's easier to play than a basic synthesizer. It offers a huge variety of voices, surpassing almost anything I've heard on the market to date. And the way in which it produces these voices is wholly unique and innovative.

An ordinary synthesizer makes its sounds by generating a tone with an oscillator. The tone is modified by various filter circuits, envelope generators, and amplification circuits, and the processed signal is then fed through amplifiers and loudspeakers. The KC-2 has no oscillators, filters, or amplifiers other than the one for the output signal. Sounds are generated by digital reading of binary codes. Let's take, for example, a simple wooden-recorder voice. RMI has analyzed the recorder sound in terms of timbre and wave shape and has plotted the results on a graph. The envelope and spectrum are converted to binary numbers that can be called up by a button on the console. The digital reader then converts the "graph" of the sound to audio-ready status, the key depressed on the keyboard telling the computer the frequency (pitch) at which the tone is to sound. Thus, if you press A440 (A above middle C), the computer runs through the preprogrammed RECORDER graph 440 times per second. Again, there are no oscillators to tune—only preset data for the computer to read.

RMI has analyzed several commonly used voices and programmed them into the PRESET section of the instrument, so that at the touch of a single button, the user can hear ORGAN (indistinguishable from a B-3 and a Leslie) or CLAV(inet), for example. But the manufacturer realized that no one would be happy with just a handful of preset voices and so included another row ranging from BASS REED to SPANISH TRUMPET. These voices can be combined to "add up" to what the presets sound like, or to create sounds not available from the presets.

So far, it sounds pretty much like a description of an organ keyboard, but at



The KC-2—a digital computer

the right of the keyboard is the ALTERABLE VOICE PROGRAMMER, which reads computer cards supplied by the company for more than 200 additional voices. Those selected by the user and fed to the PROGRAMMER become audio-ready on four different tabs marked ALTERABLE VOICE. If this is not enough, RMI will supply blank computer cards so that you can design your own graphs to customize the instrument or to try to improve on some of the built-in voices. This is a quantum leap in flexibility.

The controls of the KC-2 comprise a five-octave keyboard with an excellent action (borrowed from the parent Allen Organ Co.) and two rows of tabs. The top row is divided into three sections, the first feeding Channel 1 and the others feeding both channels. (This is a discrete two-channel instrument, with channel mixing available at the touch of a finger and easy summing for mono.) Each of the three sections contains tabs for individual voices, such as SINE WAVE, PERCUSSION, BASS REED, and WOOD CLARINET, along with others to control functions, such as ALTERABLE VOICE, ADD CHANNEL, CANCEL CHANNEL, and CHORUS VIBRATO. (The chorusing effect is achieved by "detuning" the second channel slightly from the original, as happens when two similar acoustic instruments play together.) To the right of the tabs is the aforementioned PROGRAMMER, with a four-position selector and a slot for programming cards. The second row of tabs begins at the left with pots for VIBRATO RATE, 16' TUNE and 8' TUNE. Next are several more function tabs, including activating switches for the pedal board, keyboard, and envelope

controller pedal, followed by the PRESET voices, such as ECHO, PIPE ORGAN, BELLS, CLAV, ORGAN, and ELECTRIC PIANO. Finally, next to the keyboard itself, there's a POWER on/off switch.

To give your feet something to do, the KC-2 comes with a pedal board that features master volume pedals for Channels 1 and 2, as well as ATTACK/DECAY, VIBRATO, and LATCH pedals. The PITCH BEND pedal, which is quite remarkable, can shift what you're playing through a continuous range of a perfect fourth up or down, and it is spring-loaded to assure return to the proper pitch when released. No more tying up one hand on the ribbon controller.

As for the sounds produced, most are spectacular; the rest are at least fair. I've already raved about the ORGAN sound, but the CLAV is at least as good as the namesake and is more versatile. The RECORDER voices were indistinguishable from a trio sitting in the room with me, and the tone of the STRINGS is more realistic than that of any string synthesizer I've heard.

The lower sounds are startlingly realistic and beautiful to hear, especially the BRASS simulations. The CHIMES are almost as good, leaving the SPANISH TRUMPET and ELECTRIC PIANO the only voices that are no more than distant relatives of the real thing.

Of course, most synthesists (this is what many call a synthesizer player) are not looking to imitate acoustic instruments, and even from that point of view, the KC-2 is outstandingly versatile. But when you need a string section and can't afford real players, this is surely your best bet. A bonus (people who are tired of hauling a big organ and its accompanying speaker system will get the point) is that this unit has built-in speakers.

If you're a serious keyboard player, composer, or orchestrator, the KC-2 will captivate you—you won't be able to help yourself. The suggested list price of \$4,750 may terrify the dilettante, but the professional will find it a sound investment.

FRED MILLER

CIRCLE 121 ON READER-SERVICE CARD

Records

SUSAN ELLIOTT	MIKE ROZEK
KEN EMERSON	MITCHELL SCHNEIDER
TODD EVERETT	JAMES SIMON
TOBY GOLDSTEIN	SAM SUTHERLAND
DON HECKMAN	NICK TOSCHES
STEPHEN HOLDEN	KEN TUCKER
JOHN STORM ROBERTS	JOHN S. WILSON

Charlie Ainley: Bang Your Door. Tony Ashton, producer. *Nemperor JZ 35648*, \$7.98. *Tape: •• JZT 35648, • JZA 35648, \$7.98.*

It's almost impossible not to surrender to the humorous cockiness and warmth of British singer/songwriter Charlie Ainley. On "Bang Your Door," his second album, he moves comfortably from blues-based rock & roll to r&b to folk balladry and uses such stylistically unrelated vocal reference points as Steve Marriott and Kris Kristofferson. His husky, strong voice is as effective on *Pig Farm Blues*, where it babbles and cackles, as it is on *The Whistler*, a moving ballad of romance and loneliness.

His blues-oriented material is less spectacular than some of its performances. Over Richard Worthy's hot guitar lines and forceful rhythm in *R. U. I*, Ainley spits out some amusing nonsense verse. On *Bang Your Door* he hilariously parodies his own uncontrollable sexual urges. Taking his cue from the boozy abandon of Dr. John, he plays tug-of-war with the song's insistent riff and lock-step drums.

But for all this inspired craziness, Ainley is most effective on the quiet, meditative tunes. His tender treatment of *Try to Be a Good One* turns the ballad into a resonant anthem of self-discovery. Better yet is *The Whistler*, an acoustic number that he sings with longing, fear, and quiet anger.

The record is not without problems: *Heat of the Night* and *New York, New York* sound incomplete, so it's no wonder Ainley sings them without emotion. But for the most part, "Bang Your Door" is pleasurable listening, from its neat rockabilly guitar fills to a great remake of *I Don't Need No Doctor*, whose mechanized, industrial beat may well have been inspired by Talking Heads' version of *Take Me to the River*. M.S.

James Brown: Take a Look at Those Cakes. James Brown, producer. *Polydor PD 1-6181*, \$7.98. *Tape: •• CT 1-6181, •• 8T 1-6181, \$7.98.*

The period from *Papa's Got a Brand New*

Bag (1965) to (*Get Up I Feel like a Sex Machine* (1971) may have been James Brown's best. Charting a course for Parliament, Bootsy's Rubber Band, and progeny, he invented funk: a propulsive, complex rhythmic scheme, topped with instrumental accents and vocal shrieks.

But then Brown shifted focus. With singles like 1972's *King Heroin* and concept albums like '73's "The Payback," his long-time social conscience (e.g., the 1966 hit *Don't Be a Drop Out*) resurfaced. Trouble was, Marvin Gaye and Curtis Mayfield were doing the same thing a lot better. Worse, Brown's preaching seemed to thin out his famous grooves. Cognizant of r&b's erosion by disco, he finally returned to danceable basics with 1975's *Hustle!!! (Dead On It)*. One wonders if he was too late, for since then most of his music has sounded more and more like lame crowd-following.

Because of one, exceptional cut, "Take a Look at Those Cakes" may be Brown's best LP in well over five years. (*For Goodness Sakes*) *Take a Look at Those Cakes*, a devilish eleven-minute exercise in ostinato, features not only a new vocal gimmick ("booga booga booga"), but also a brilliant, hybrid rhythm track. It's a sort of shuffling disco piece that isn't led by disco's standard hi-hat and cold, metronomic pattern. Brown has made disco as warm and loose as funk by using auxiliary percussion instruments to state *Cakes'* pulse.

Otherwise, "Take a look" is typical late '70s Brown, full of high potential grooves (of the five tracks, *Spring* and *As Long as I Love You* stand out) but ruined by clinkers, generally amateurish musicianship, and low Brown vocal energy. There's no reason to think things will get better, either. Soul Brother Number One, please come home. M.R.

Cindy Bullens: Desire Wire. Tony Bongiovi & Lance Quinn, producers. *United Artists UA LA 933H*, \$7.98. *Tape: •• CA 933H, •• EA 933H, \$7.98.*

To those who fondly remember writhing in sympathy with the Shirelles, Shangri-



Ainley—best on ballads

Las, Ronettes, or Lesley Gore, Cindy Bullens will be a rare pleasure. She evidently was raised on the early Sixties girl-group sound, and she incorporates its dramatic pauses, breathless exhortations, and laments about love gone wrong into a rocking framework that's totally up to date.

Bullens' songs may disappoint anyone who would like to see women performers break away from their plaintive dependence on the opposite sex. But let's face it: Love battle cries are among the popular song's most effective and universal messages. Besides, "Desire Wire" contains enough moments of zippy vocal/steamy guitar strength to triumph over whatever lyrical subordination Bullens may have allowed herself.

This album is about communication—in letters, in person, frequently over the phone. Songs like *Survivor*, *Mean in Your Heart*, and *Desire Wire* range in style from ballad to boogie yet are linked by Bullens' dedication to make her conversations bring results. And there are wonderful lyric twists in her treatment of tried and true themes. On the title tune she wants to apologize to her lover but must wait for his phone call because "I been everywhere/Searching for your number/There's no place left to look." When the soulmate of *Survivor* sends her a letter announcing their breakup because *he* wasn't strong enough, he declares, "You can handle this life ... you're a survivor," try as she might to deny it.

With her lyric deftness Bullens has made an album full of love songs that burst with the conviction of reality. "Desire Wire" is to typical Top 40 patter what in-depth fiction literature is to a TV soap opera. On the surface, the charac-



Bullens—love battle cries

ters appear similar. Yet on second look, one is a cardboard setup and the other is three-dimensional fruit for the imagination. Bullens has made one of the year's most joyous debuts. Someone get this girl a spicy touring lineup and put her on the road! T.G.

The Chieftains: The Chieftains 7. Paddy Moloney, producer. *Columbia JC 35612, \$7.98. Tape: ●● JCT 35612, ● JCA 35612, \$7.98.*

Except for food, I am not a devotee of things particularly ethnic, and that includes Irish music. Aside from some Chieftains albums, the only ethnic record I own is a Folklyric LP called "Irish-American Dance Music & Songs," which I keep for the strange little song *Paddy McGinty's Goat*.

But I listen to the Chieftains as much as I listen to anyone else because, I think, there is something in their wedding of pagan joy and Gaelic melancholy that makes for a music unlike any other. I usually don't know anything about the compositions they play, and, while they are kind enough to print the histories of those pieces in their liner notes, I don't generally read them. Although the Chieftains may be preserving ancient Irish folkways, they are also—more importantly—one of the hottest bands on the face of the earth. Once one of their records is put in a jukebox, it rarely gets taken out.

There is a delicate and sensuous balance in "The Chieftains 7." *Away We Go Again*, a raucous and drunken series of reels, is followed by the austere *Dochas (Hope)*; and *The Fairies' Lamentation and Dance*, which is in parts as dark as death, is followed by a piece of effective



Brown—amateurish musicianship

revelry called *Oh! The Breeches Full of Stitches*. There is a certain magic and mystery in the Chieftains' music, because it can be whatever you want it to be. And that is a quality that goes far beyond being merely ethnic, or even merely entertaining. N.J.

Dr. John: City Lights. Tommy LiPuma & Hugh McCracken, producers. *Horizon SP 732, \$7.98. Tape: ●● CS 732, ● 8T 732, \$7.98.*

Dr. John, the fat boy from Broadmoor, has been at it for a long time. In a manner that is no less elegant than it is coarse, he makes songs that have thirty years of New Orleans rock & roll in their blood. To hear him sing and play the piano is to experience one of the hottest two-steps the moon has ever looked upon.

More than any of his work in the past, "City Lights" is imbued with an early-Fifties bop sound. Two of the album's strongest pieces, *Rain* and *City Lights* (whose simple lines and cigarette-ember brevity are a masterpiece of poetic and powerful plainness), are arranged with a lush orchestration remindful of Charlie Parker with strings. David Sanborn's alto-sax solo on *Rain* invokes that demimonde among which sin walked in seamed nylons.

Like the title song, much else here is about night life. *Street Side* is a story of unrequited love set against a background of bars and guns and shiftlessness. *Snake Eyes* is a sort of philosophical discourse upon the nature of scared money, free money, and no money. *Sonata/He's a Hero*, written with the never-ending Doc Pomus, is a song about a honky-tonk hero that'll make

you forget about Waylon.

My favorite moment is *Dance the Night Away with You*, also coauthored by Pomus. It's a party song the likes of which only a few others besides Dr. John could even aspire to these days. And that's really what "City Lights" and Dr. John are about: not a music-heritage lesson, but a party. A good party—the sort that gets you into trouble. N.J.

Kate & Anna McGarrigle: Pronto Monto. David Nichtern, producer. *Warner Bros. BSK 3248, \$7.98. Tape: ●● M5 3248, ● M8 3248, \$7.98.*

Kate and Anna McGarrigle's first album was issued three years ago in the wake of Linda Ronstadt's rendering of Anna's *Heart like a Wheel*. It wound up on several Best of the Year lists, and "Pronto Monto," their third LP, should as well. Their music is in the folk tradition, sensitive without being self-consciously so. Add to this the facts that the McGarrigles are Canadian (from Montreal, no less), that they've included a nicely belted version of the obscure *Tryin' to Get You* (associated with Elvis Presley in his pre-conscript days), that they sometimes sing in French and play what sound like concertinas, and that they use Bonnie Raitt's bassist and a couple of English folkies (Jerry Donahue, Fat Donaldson) in the band, and trendiness among critics is a certitude.

But reviewers, I'm told, get their albums free, and this one's likely to become a collector's item due to lack of commercialism and exposure. It's a damn shame, because "Pronto Monto" is really good. Kate, particularly, is a writer with a lovably quirky sense of humor. *A Side of Fries* sounds like Maria Muldaur singing something Warren Zevon had written for her (though it's



Kate and Anna

better than either could write or perform). And *Na Cl* is, believe it or not, a subatomic love story. The voices, winding around each other, are distinctive and appealing, and the arrangements are really unusual, clever, and apt. Miss this at your own risk. T.E.

Outlaws: Playin' to Win. Robert John Lange, producer. *Arista AB 4205, \$7.98.* Tape: ●● ATC 4205, ●● AT8 4205, \$7.98.

Southern rock bands usually don't have an easy time translating their box-office successes to record sales, and the Outlaws are no exception. Though this Florida band has tried both a hot producer (Eagles' mentor Bill Szymczyk on "Hurry Sundown," 1977) and a live greatest-hits package ("Bring 'Em Back Alive," 1978), they've been unable to match the gold success of their 1975 debut album.

On their fifth effort, "Playin' to Win," the Outlaws have turned to Robert John Lange (City Boy, Graham Parker) in the hopes of transforming their guitar-powered sound into vinyl success. It looks like Lange has succeeded—at a price. The nine new songs are slick, tightly packaged entries in the FM-m.o.r. sweepstakes, with the emphasis on simple lyrics and high harmonies. There's also a guitar break thrown in at the end to remind listeners that this is the self-proclaimed Florida Guitar Army. Every song is appropriate for airplay, but all are so predictable and colorless that programmers may have a hard time deciding among them.

Siar guitarists Billy Jones and Hughie Thomasson again handle the bulk of the songwriting, but, despite being away from the studio for two years, they do little more than rehash past melodies and lyrical ideas. Jones's best, the glistening *If Dreams Came True*, is similar to the second LP's *Prisoner*. Thomasson's *You Are the Show* may become a concert staple due to its theme, but the song pales in comparison to *Green Grass and High Tides*, *Stick Around for Rock & Roll*, and other, earlier high-powered tunes. The country numbers that added variety to the early albums are long gone, what with the departure of guitarist Henry Paul after "Hurry Sundown." His replacement, Freddie Salem, contributes only the dreary *Falling Rain*. The best tune, Iain Sutherland's *Dirty City*, is the only one not written by a band member and features some nice guitar work by Jones and Thomasson.

Initial sales of "Playin' to Win" are high—300,000 in three weeks, according to Arista—and the album should serve to broaden the group's following. But its lack of musical progress will no doubt disappoint long-time fans. J.S.

Tanya Tucker: TNT. Jerry Goldstein, producer. *MCA 3066, \$7.98.* Tape: ●● MCAC 3066, ●● MCAT 3066, \$7.98.

Watch out, Linda Ronstadt—you've got some new competition, and from a most unlikely source. Tanya Tucker, country music's slightly ill-at-ease child-woman (and, lately, save-the-seals ecologist), has turned to rock & roll. Recorded in Los Angeles with long-time heavy Jerry Goldstein, "TNT" is not laidback, pretentious, or embarrassing in any way. It is powerful, believable, and exciting. Most importantly, it shows promise of greater, more comprehensive rock efforts to come from Ms. TNT herself.

Tanya has finally realized that her ratchety voice, perhaps a smidge too jarring for country laments, is best suited to traditional rock. Two of the album's most successful cuts are her covers of *Heartbreak Hotel* and *Brown Eyed Handsome Man*. The former is belted with so much emotion and guts that it recalls the fervor of Presley's original. The latter, from its dedicated opening riff straight through to its emphatic conclusion, illustrates how Chuck Berry ought to be sung. Its sincerity only underlines lovely Linda's wimpy slickness on *Living in the U.S.A.*

Although she's gone West and traded in her tight blue jeans for tighter hotshot stretch pants, Tucker has not forgotten her origins. On "TNT" she exercises her voice as relentlessly as she did her figure for the album photos. Backed by a group of superb instrumentalists, she reaches from Jim Weatherly's whispery ballad, *The River and the Wind*, to a yee-haw finale of *Texas (When I Die)*. The latter comes closest to country and even sounds somewhat out of context.

Most faults of this record are minor. *Not Fade Away's* holler ending might have been cut a minute sooner, and Goldstein's *It's Nice to Be with You*—complete with schmaltzy strings—should have been cut altogether. Next time out, let's have ten tracks of the pure joy that Tanya can express when she sings to rock's master craftsmen. T.G.

Jerry Jeff Walker: Jerry Jeff. Michael Brovsky & Jerry Jeff Walker, producers. *Elektra 6E 163, \$7.98.* Tape: ●● TC5 163, ●● ET8 163, \$7.98.

I have always tried to like Jerry Jeff Walker and have given his albums eager auditions. There seemed to be a beery flow, a certain smiling recklessness in his music that someday might blossom into something more substantial. But, in the ten years since *Mr. Bojangles*, it hasn't happened. Worse, that beery flow has become a stale puddle and that certain

smiling recklessness an annoying pose.

"Jerry Jeff" is self-indulgent unto ruin. When he strikes a tortured-troubadour profile, he sounds like a bad actor; instead of being drawn into the abyss of his terminal sensitivity, one withdraws in embarrassment. *Eastern Avenue River Railway Blues* means nothing but sounds excessively blue. *Banks of the Old Bander*, written by that desperado hit machine Rodney Crowell, shows that Texas is fast devolving into the cliché dump of pop culture and that the spirit of Stephen Foster does, indeed, live on. In *Her Good Lovin' Grace*, the only song here written by Walker, we are told that it is in the outlaw's moments of weakness and pain—hangovers, soundchecks, and such—that a good woman finds her fulfillment. And the virility here is almost as runny-nosed as the tenderness. *Lone Wolf*, written by Lee Clayton, one of my favorite tongue-in-cheek bad-asses, is stripped of all irony as Walker delivers such lines as "Lock up your women and hide" with adolescent gravity.

His party-boy profile is less embarrassing, but no less effete. *I'm Not Strange* sounds like something from the first Mothers of Invention album. *Bad News* sounds like the blues according to Donnie Osmond. And the title of *Boogie Mama* says it all. Walker may yet make something substantial of all this. But so far, it's a cowboy hat, a can of beer, and a crooked smile that's known too many mirrors. N.T.

JAZZ

The Louis Bellson Quintet Featuring Ted Nash: Raincheck. Carl E. Jefferson, producer. *Concord Jazz CJ 73, \$7.98.*

Ted Nash, the nineteen-year-old saxophonist in Louis Bellson's Quintet, could have been born fifty years ago. For back in the late '40s—when he would have been just about the age he is now—virtually every teenage saxophonist was trying to sound like Charlie Parker. The difference is that, rather than simply copying licks, Nash has absorbed Bird's overall stylistic implications and used them as the foundation of his own style. Perhaps the time warp is due to familial influences—he is the namesake and nephew of Les Brown's saxophonist in the '40s and the son of trombonist Dick Nash. But in his own right, he has an amazing technique and gets around his horn with dazzling facility.

Continued on page 116

Bose presents the most exciting bookshelf speaker since the Model 301.

The new Model 301. With an improved tweeter that took three years to perfect. An innovative Dual Frequency Crossover™ network that delivers smoother midrange response. A unique tweeter protection circuit that virtually eliminates tweeter burnout. And a subtle exterior modification that makes the Model 301 more elegant than ever.

But even with changes, the Model 301 retains its conventional personality.

It is, after all, a Bose Direct/Reflecting® loudspeaker system. Which means it utilizes a carefully produced balance of reflected and direct sound to give you the spatial realism of a live performance. From nearly every location in your listening room, you hear accurate stereo balance. Accurate location of each instrument, each note. Clearly, precisely. And with a fullness and richness you may have thought

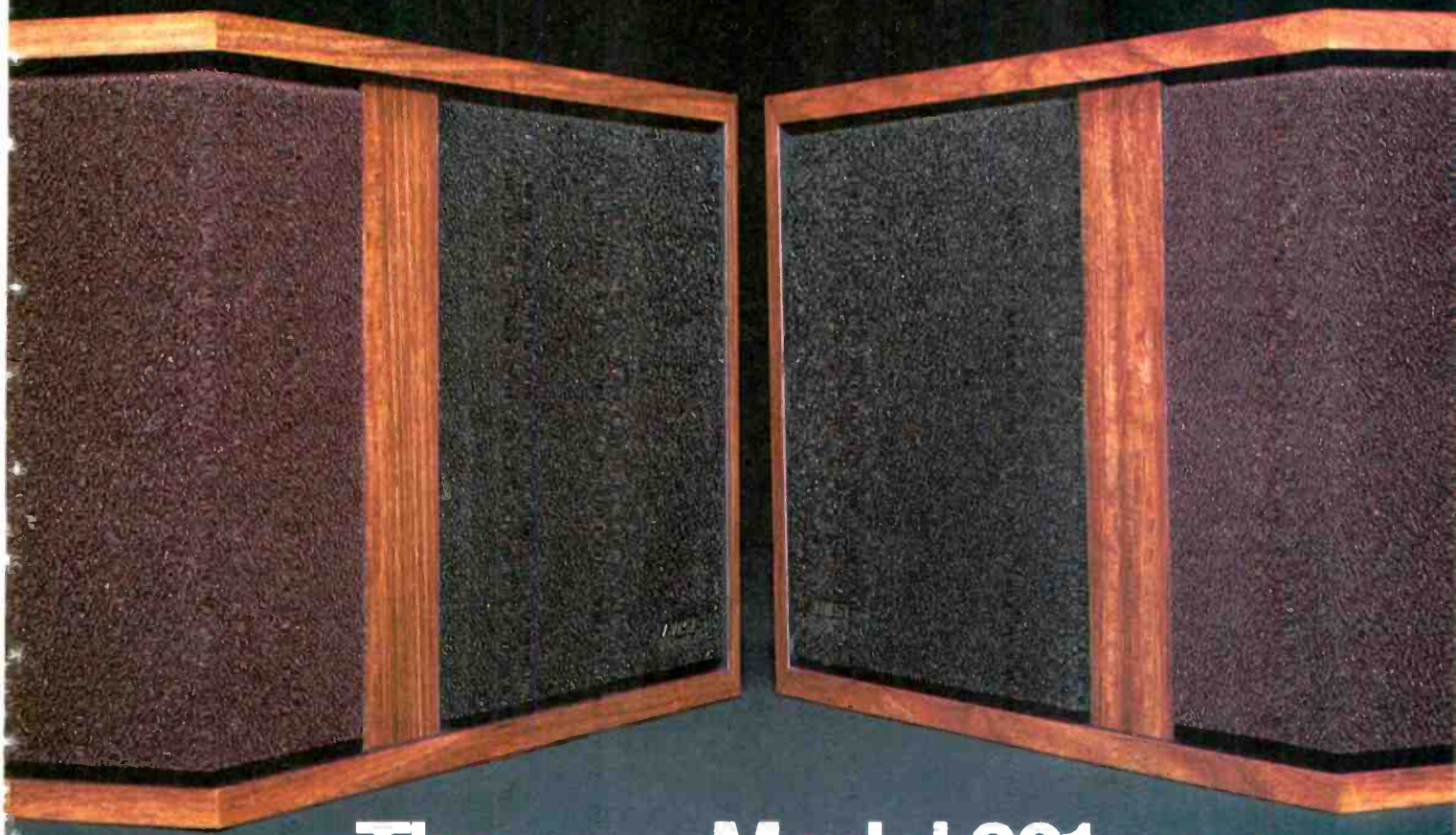
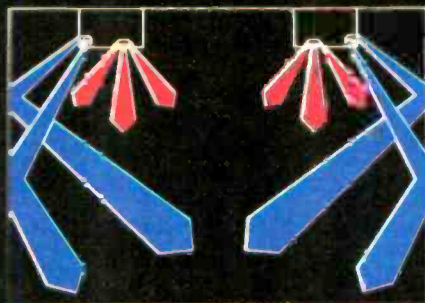
impossible from such a compact enclosure.

As a matter of fact, the Model 301 delivers a level of performance which simply astounds first-time listeners.

It could happen to you. Ask your Bose dealer to demonstrate the Model 301 against any bookshelf speaker, regardless of price.

Then ask him to demonstrate the Model 301 against even much larger speakers. In each case you will hear an open, spacious sound that expands the confines of your listening room. Suddenly, you are in a larger, more open space, listening to music as if you were hearing it for the first time.

No other bookshelf speaker ever approaches the spatial realism of the new Model 301. See your Bose dealer for a demonstration and hear what we mean.



The new Model 301.

BOSE®

For complete technical information on the new Model 301 speaker system, write Bose, Dept. T, The Mountain, Framingham, MA 01701

The Clash: The Quietest Debut in Corporate History

by Toby Goldstein

The Clash: "Give 'Em Enough Rope."
Sandy Pearlman, producer. Epic JE 35543 \$7.98. Tape: ●● JET 35543, ●● JEA 35543, \$7.98.

The Clash began their career in 1976 as an opening act for the Sex Pistols in Britain's punk cellars. At the time they were raw, directed, and angry. Since then they have become a lot more polished, but their aim at selected targets is still arrow straight, and they're angrier than ever.

Their first LP, "The Clash," was released by CBS in England, and sounded like it had been recorded in a laundry room with a buzz saw as the featured instrument. Through the garbled production emerged such songs as *Police and Thieves* (a lengthy cover of Junior Murvin's reggae classic), *London's Burning*, and *I'm So Bored with the U.S.A.*—just the sort of pleasantries that corporate

ears love to hear. The album became a U.K. best-seller and an import favorite.

British Clash tours were subject to the same problems as other top New Wave acts: cancellations, oversupervision, and arrest for nuisance crimes. But they remained true to the uncompromising nature of both their music and politics, issuing such singles as *Complete Control*, *Clash City Rockers*, and *Capitol Radio*. The last was a limited-edition disc dedicated to London's only commercial rock station that took Elvis Costello's *Radio Radio* one better.

All of these are powerful songs you should know by heart, but you've probably never heard them since the Clash have been anonymous in the U.S. until now. Not that CBS's meager debut campaign for "Give 'Em Enough Rope" should improve matters much. A music trade has called the LP an important

New Wave product, but only in small print way in the back pages. And at least part of "The Clash" was to have had its U.S. release almost a year ago, but it got buried in corporate politics. No, the Clash will not have an easy time of it in the U.S. There is no media charmer like the Pistols' Johnny Rotten in this group, and Mick Jones, Joe Strummer, Paul Simonon, and Nicky "Topper" Headon don't extend themselves to the press. Currently split from their manager, their direction lies in their own hands.

About the only link between the Clash and the American marketplace is Blue Oyster Cult producer Sandy Pearlman. And if "Give 'Em Enough Rope" is received as the first class rock & roll album that it is, some of the credit must go to him. With the possible exception of the cut *Cheapskate*, he has not made the Clash into BOC II. What he has done is sharpen the focus of their political messages, now more sophisticated and tinged with irony. For instance, a song about a notorious drug setup case in Britain (*Julie's in the Drug Squad*) is underscored by deliberately rinky-dink instrumentation. He has also cleaned up production in general, making Strummer's spewed vocals far more audible than on the first LP. Not all are discernible, however, and, like the early records by the Rolling Stones, when a lyric is hidden, it takes on a far more sinister context.

While the Tom Robinson band's political songs are a subgenre of their rock albums, the Clash handle radical politics and rock as separate, focused entities that reinforce each other. A *Safe European Home* is anything but. *Tommy Gun* is both a rattling machine and a person who chalks up victims, and Johnny may not come marching home again after the *English Civil War*.

The Clash are not above using a riff from, for instance, the Who's *I Can't Explain* and turning it into the foundation of *Guns on the Roof*—a documentation of several group members' arrest for shooting pigeons. Their delivery is as ugly as the reality they depict: The rhythm section of Simonon and Headon is relentless and over it Strummer's voice is as gravelly as the city dump. As if to reinforce their own goal of straightforwardness, they changed the title of the album's conclusion from *That's No Way to Spend Your Youth* to *All the Young Punks (New Boots and Contracts)*, acknowledging in one line Mott the Hoople, Ian Dury, and their breakup with management. In the Hoople's case, "all the young dudes carry the news." But on "Give 'Em Enough Rope," all the young punks make the news—even if they hang themselves in the process.



Jones, Simonon, Strummer, Headon—no compromises

Jazz

BY DON HECKMAN & JOHN S. WILSON

Air: Montreux Suisse Air. Michael Cuscuna, producer. *Arista Novus AN 3008, \$7.98. Tape: ●● ATC 3008, ● AT8 3008, \$7.98.*

Air is woodwind player Henry Threadgill, bassist Fred Hopkins and drummer/percussionist Steve McCall. It's not too far off the mark to say that it sounds very much like what an Ornette Coleman trio would sound like—if Ornette ever decided to record actively again. But the comparison doesn't come off in Air's favor, even though it should be given credit for maintaining a strong dedication to the avant-garde style of the mid-Sixties. D.H.

The Capp/Pierce Juggernaut Featuring Joe Williams: Live at the Century Plaza. Carl E. Jefferson, producer. *Concord Jazz CJ 72, \$7.98.*

"Happy music, no anger or hostility or any crossover stuff." That's drummer Frankie Capp's description of the seventeen-piece Capp/Pierce Juggernaut, a big band in the best Swing tradition with echoes of Basie and Herman via coleader and pianist Nat Pierce. This performance, recorded at the Century Plaza, pulses with vitality. Besides being a convincing demonstration that the halcyon days of big bands are not necessarily over, the disc also features Joe Williams live in a recording that captures the full charisma of his style. J.S.W.

Pete Fountain: Alive in New Orleans. Pete Fountain & Bill Evans, producers. *First American FA 7706, \$7.98. (First American Records, Inc., 725 South Fidalgo, Seattle, Wash. 98108.)*

Pete Fountain, with Al Hirt, represented New Orleans Jazz (tourist division) in the '50s and '60s. For those who may have been wondering what happened to him, he is, as this disc declares, alive in New Orleans. The key figures in his band are tenor saxophonist Eddie Miller, whose warm and wooly sound is a match for Fountain's rich, bosky clarinet tone, and Teagarden-influenced trombonist Jack Delaney. Along with a couple of obligatory dixieland standards, the set includes such less frequently heard old pop tunes as *Diane*, *Little Girl*, *Margie*, and *When Your Lover Has Gone*, and it's all done with a warm, friendly glow. J.S.W.

The Art Hodes Notebook: Friar's Inn Revisited, featuring George Brunis and Volly De Faut. Robert G. Koester, producer. *Delmark DS 215, \$7.98.*

The group that Art Hodes has brought together here in-

cludes two of the actual members of the New Orleans Rhythm Kings in trombonist George Brunis and clarinetist Volly De Faut. They give the disc an air of distinctive authority and steer it away from the freneticism that colors many attempts to reproduce early dixieland. But the star of the session is Nappy Trotter, a veteran Chicago trumpeter who uses a mute with the punch and panache of Muggsy Spanier and whose solos bristle with rhythmic color. J.S.W.

Hank Jones: Tiptoe Tapdance. Ed Michel, producer. *Galaxy GXY 5108, \$7.98.*

Hank Jones plays the piano in such an inobtrusive way that initially it almost sounds like musical wallpaper. But, on further listen, it can become quietly compelling. This disc is an odd mixture. One side is given over to good, unhackneyed pop songs (*I'll Be Around*, *Sweet Lorraine*, *I Didn't Know What Time It Was*), on which Jones works his magical enticements. The other is primarily spirituals (plus, inexplicably, Eubie Blake's *Memories of You*) into which he does not put the delicate breath of life he infuses into his pop material. J.S.W.

Ronnie Laws: Flame. Ronnie Laws, producer. *United Artists UALA 881H, \$7.98. Tape: ●● CA 881H, ● EA 881H, \$7.98.*

Laws's unquestioned gifts as a first-rate woodwind player are mostly buried in this let's-get-a-disco-hit production. The thick textures are overloaded with synthesizers, percussion, and voices, and Laws's occasionally nice turns of phrase on tenor, soprano, and alto saxophones are virtually undecipherable. Things reach their nadir on *Live Your Life Away*, when he makes the unfortunate decision to sing the lead vocal. D.H.

David Fathead Newman: Keep the Dream Alive. Orrin Keepnews & William Fischer, producers. *Prestige P 10106, \$7.98. Tape: ●● 5 10106, ● 8 10106, \$7.98.*

As one of the true progenitors of the blues-based saxophone style that dominates much of contemporary pop music, David Fathead Newman isn't heard often enough. But Prestige here frames him in the pop glossiness usually accorded such imitators of his style as Dave Sanborn, and even Newman has a hard time keeping his head above an ocean of up-front rhythm instruments and murky vocals. D.H.

Rainbow Featuring Will Bouwre: Crystal Green. Kiyoshi & Yasohaichi Itoh, producers. *Inner City IC 6001, \$7.98.*

A strange record, this one. Recorded in the summer of 1976, it was licensed from Nippon Phonogram for release by Inner City. The presence of some of New York's most notable studio musicians—Mike Brecker, Cornell Dupree, Eric Gale, Steve Gadd, etc.—has resulted in surprisingly bloodless music. Only Brecker, who plays most of the lead lines, occasionally rises above it all, especially on a piece called *It Ain't No Use*. Ironically, that piece's title casts a prophetic pall over the entire album. D.H.

Nikko. Not Any Stereotype!



Unlike any stereotype, Nikko Audio actually delivers the seed of sound in our professional series.

The Gamma V Synthesized FM Digital Tuner has a LED readout showing locked-in MHz numbers. Accuracy on the button.

The EQ 1 Graphic Equalizer shapes the acoustics of your room into a recording studio.

The Alpha III Power MOS-FET DC Amplifier has the lowest THD anywhere

near the price range—0.008% (80 watts per channel, both channels driven into 8 ohms, 20 Hz to 20 kHz).

Call our toll-free number for your nearest Nikko dealer: (800) 423-2994.

Nikko Audio

16270 Raymer St. Van Nuys, Calif. 91406 (213) 988-0105
In Canada: Superior Electronics, Inc. © Nikko Audio 1978

COMPARE THESE PRICES

PIONEER

\$228

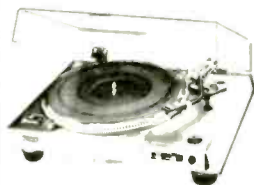
SX 780



SONY

\$219

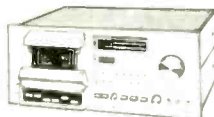
PSX 7



PIONEER

\$322

CTF 900



CALL Weekdays 9-6
Saturdays 9-5

WDS
WISCONSIN DISCOUNT
STEREO

2517 Whalen Lane Madison, Wisconsin 53713

Over 60 Brands like:

Technics	Maxell	Sony	AKG
Pioneer	Empire	Teac	ESS
Marantz	Altec	Akai	JBL
Kenwood	Sharp	Dual	TDK
Sansui	Sanyo	Koss	Audio
Jensen	Shure	DBX	Technica

TOLL FREE
800-356-9514



On this disc, Nash is part of a very crisp, precise quintet. His saxophones (mostly alto, some tenor) and Ross Tompkins' piano provide the colors. Bellson's drums and Joel De Bariolo's bass supply the lifting rhythmic drive, and Blue Mitchell's trumpet adds some lacy filigree. It's a tight little group and an attractive, unselfconscious setting for a provocative new talent. J.S.W.



Percy and Jimmy Heath

The Heath Brothers: Passing Through.

George Butler, Jimmy & Percy Heath, producers. *Columbia JC 35573, \$7.98.*

Tape: JCT 35573, JCA 35573, \$7.98.

The Heath family is a self-contained musical package: Jimmy plays reeds and flute and composes and arranges. Percy has twenty-two years of bass-playing experience with the Modern Jazz Quartet under his belt. Brother Albert (Tootie) plays drums, and Mtume (Jimmy's son) is a percussionist. All they lack is a pianist, and on this, their debut as a group, that role is filled by their old friend Stanley Cowell.

Jimmy is the busiest of the tribe on "Passing Through." Not only is he the most prominent and varied soloist, but he has written or cowritten five of the eight compositions. As a writer he shines as well on the brooding, romantic ballad *Light of Love* as he does on the oddly balanced, slightly Monk-line melody of *A New Blue* and the funky riff of *Artherdoc Blues*.

But despite Jimmy's ubiquitous presence, the most distinctive personality here is Percy. Among his best moments are an unusual solo version of *Yardbird Suite* (played on his baby bass), a fascinating variation of *Body and Soul*—which he calls *In New York*—on which Cowell's piano echoes his bass solo line, and some zestful contributions to the unorthodox *Artherdoc Blues*. Cowell and guitarist Tony Purrone add glimpses of solo color, and a brass quartet looms gently in the background of some of Jimmy's arrangements. J.S.W.

The Woody Herman Band: Chick, Donald, Walter & Woodrow. Dick La Palm, producer. *Century Records CR 1110*, \$7.95.

The Woody Herman band playing pieces by Chick Corea and Steely Dan's Donald Fagen and Walter Becker? It seems like a peculiar idea, but then I hear Mantovani playing Beatles tunes in elevators all the time.

The real point, of course, is that we are dealing with two quite distinct entities. Corea has acknowledged skills as a composer and arranger for wind ensembles. The only question is whether or not his *Suite for a Hot Band* is good music. It is, with reservation. Corea's affection for bullfight-like trumpet fanfares has never been a favorite of mine, and he doesn't seem to really understand the rolling, rhythmic groove that has always characterized Woody's bands. Still, *Suite* is a good enough piece.

The five Fagen and Becker contributions—*Green Earrings*, *Kid Charlemagne*, *I've Got the News*, *Aja*, and *FM*—are a bit more questionable, however. Each has been orchestrated by a different arranger, all of whom are good enough to make *Twinkle, Twinkle Little Star* sound like pure jazz. I suspect that in the hands of a pop reviewer the order of priorities would be reversed, but although the lightweight compositions are pleasant enough, the real guts of this music comes from the work of Joe Roccisano, Bill Stapleton, Victor Feldman, Alan Broadbent, and Gary Anderson. (Listen for Feldman's off-the-wall insertion of a quote from *String of Pearls* on *I've Got the News*.)

One more carp: Why the inclusion of outsider Tom Scott as a soloist? Scott is surely a fine player, but a band that includes players like saxophonists Bruce Johnstone and Frank Tiberi and trumpeter Dennis Dotson doesn't need help from anyone. "Chick, Donald, Walter & Woodrow" is a good but not great album, flawed by the obvious attempt to tie the Herman band into the "youth" market. Woody's got plenty of his own credentials—he doesn't need the connection. D.H.

Alberta Hunter: Remember My Name. John Hammond, producer. *Columbia JS 35553*, \$8.98. *Tape: JST 35553*, *JSA 35553*, \$8.98.

Alberta Hunter was one of the more celebrated '20s "classic" blues singers. She was also a songwriter (her *Downhearted Blues* was one of Bessie Smith's classic recordings) and enjoyed a successful career as a pop singer, performing in the London production of *Show Boat* in the late '20s. Her reappearance in the fall of

1977 after twenty years of retirement seemed, initially, as curious as discovering a living, breathing dinosaur. But at the age of eighty-two, she proved to be a vital performer, amazing audiences at the Cookery in New York by singing three long sets six nights a week with all the vigor and skill of a woman in the full flush of her talents.

Robert Altman signed her to write a couple of songs for his film *Remember My Name* and to perform them along with her regular repertoire. The soundtrack is therefore a representative cross-section of her work and, as produced by John Hammond, puts her in a superbly accommodating setting with such distinctive musical voices as Vic Dickenson's insinuating trombone and Doc Cheatham's lightly dancing trumpet.

Hunter's voice is sure and strong and, while she wisely does not overextend her range, she is easy and relaxed within its limited scope. Even when she moves from blues to pop ballads on her early *Some Sweet Day* (which was a memorable Louis Armstrong recording), or on her new *The Love I Have for You*, she sings with an intensity that sweeps aside any suggestion of the normal quavers in an aging voice. *The Love* is a charming, slightly old-fashioned melody that has the evocative power of an established standard, while her other new song, the title tune, is a traditional slow blues. Despite the inherent sameness in a series of basic blues, the peppery zest of Hunter's personality lights up all of her material, giving it color and flavor. And the instrumental backing, organized by her pianist Gerald Cook and saxophonist Budd Johnson, adds a new dimension to her usual piano and bass accompaniment at the Cookery. J.S.W.

Matrix: Wizard. John Simon, producer. *Warner Bros. BSK 3260*, \$7.98. *Tape: M5 3260*, *M8 3260*, \$7.98.

Matrix is a jazz-styled band from the Midwest that has arrived on a cascade of adulatory publicity. This is its first recording for Warner Bros., its only other LP being a self-produced one for RCA in 1977. The presence of John Simon in the producer's chair and the trumpeted description of "Wizard" as a "programmable album" testify to the fact that Warners views Matrix as Important Stuff.

It's hard to agree. Certainly Matrix is an interesting band; in live performance it can even be exciting. But Simon's penchant for urging young groups into pretentious, brass-dominated puffery in combination with Matrix leader John Harmon's overbaked tributes to his favorite literary lights makes for an ex-

DISCWASHER

presents

RECORD CARE BASICS

The finest record care system is Discwasher, and the research of the Discwasher labs shows four ways to dramatically extend the fidelity of your discs:

1. Beware of the heat monster. Taking records from very cold conditions to hot conditions, or playing records at temperatures in excess of 90° F, accelerates record wear and distortion.
2. Beware of a "clean" stylus. A stylus may look clean, but can be glazed with contamination after playing two or three records. This glaze holds dust which abrasively destroys records. Discwasher's SC-1 Stylus Cleaner is the best way to keep your clean-but-dirty stylus really clean.
3. Do not replay records quickly. Playing a record more than once every hour causes chemical and physical stress to the vinyl that will eventually destroy the album.
4. Clean micro-dust before playing. Micro-dust is attracted to records and may not be noticeable. Playing a dust-contaminated record welds this micro-dust into the grooves. The Discwasher brush with a few drops of D3 fluid is the finest, most convenient way to remove this threat to your valuable record collection.

For technical information on the complete line of Discwasher products, see your hi-fi specialist or discriminating record store.



discwasher, inc.
1407 N. Providence Rd.
Columbia, MO 65201

Order Toll Free! Except N.Y., Ala., H2wa

SCA 800-221-0974

FOR ORDERS ONLY!
Mon-Thurs 9AM-9PM, Fri-Sat 9AM-5PM, N.Y. Time

STEREO HOT-LINE

AKAI Technics



CHECK US OUT!

- ✓ Our prices are the lowest.
- ✓ Discounts on over 60 major brands.
- ✓ Reliability: one of the oldest audio mail-order houses in the U.S.A.
- ✓ Rated #1: by a leading trade publication.
- ✓ Large Inventory: we buy in volume getting the best deals from the manufacturers, you get the best deal from us.

GIVE US THE OPPORTUNITY TO BEAT THE BEST DEAL YOU'VE BEEN ABLE TO FIND.

— QUOTES AND INFORMATION —
(212)253-8888, 9AM-5PM, MON.-SAT., N.Y. TIME


Write or Call us now for the lowest price quotes and a Free price flyer.

STEREO CORPORATION OF AMERICA

HF-1629 Flatbush Ave.
Brooklyn, New York 11210

CIRCLE 41 ON PAGE 89

Direct to Disk and Digital RECORD CLUB



- ALL RECORDS 100% GUARANTEED
- IMMEDIATE DELIVERY
- NO MINIMUMS
- NEWEST RELEASES
- PHONE ORDERS ARE SHIPPED C.O.D. OR CREDIT CARD
- FULLY INSURED SHIPMENTS
- OVER 50 TOP NAME RECORDINGS
- PICTURE DISKS AVAILABLE
- DISCOUNTS ON ALL RECORD CARE EQUIPMENT
- LIMITED COLLECTORS EDITIONS

The Direct to Disk and Digital Record Club is a no obligation membership club that guarantees you all the news releases on direct to disk and digital records.

Call Free Person to Person - Paul Kelly at (415)433-1091 or mail coupon . . .

WW MARKETING
EST. 1968
P.O. Box 93, Dept. HF2, San Francisco, Ca 94101

Name _____
Address _____
City _____
State _____ Zip _____
Phone (work) _____ (home) _____

CIRCLE 54 ON PAGE 89

remely dim possibility of any jazz-type music taking place. The title track, for example, is a "musical impression of J.R.R. Tolkien's unforgettable mage, Gandalf"; *Mountolive* was "inspired by the literary creation of Lawrence Durrell (*sic*);" and *Smile at the Foot of the Ladder* is a "musical portrait of Henry Miller's clown/saint August." Nothing wrong with all this, of course—one man's inspiration is another man's hot dog. The problem is that, as Charlie Parker once said, "It don't rub off, honey," and Harmon's pieces have less to do with Durrell, Tolkien, and Miller than they do with tired big licks, overworked diminished chords for the brass, and deadeningly serious studio production.

Whatever energy Matrix can generate live was long gone even before the album was mixed down. I'd like to hear them play some charts that are open enough to allow for the fresh breezes of jazz improvisation to waft through; I'd like to hear players like saxophonist John Kirchberger and pianist Harmon get loose without the overbearing burden of having to be *significant*. Most of all, I'd like to hear Matrix be the band it can be—an energetic group of gifted young players who still need room and time to find their identity. Let's hope Warners will give them the chance. D.H.

Eddie Palmieri: Lucumi Macumba Voodoo. Bobby Colomby & Eddie Palmieri, producers. *Epic JE 35523*, \$7.98. *Tape: ••JET 35523, •JEA 35523*, \$7.98.

Eddie Palmieri is the bane of budgeters, time-and-motion men, and the tidy-minded in general. So many silent months went by after he had begun work on this album that Epic no doubt wondered what kind of flake they had acquired this time. Now that it's finally out, I find it almost unreviewable in less than 20,000 words and without a trainload of fireworks. What can you say about music so beautiful that it makes you want to weep and shout?

Palmieri is simply staggering. The man is a kind of Jackson Pollock of the music world: He takes the great Cuban tradition, tints it with jazz and rock, daubs in his own schizophrenic piano, and then hurls it in great handfuls onto an aural canvas. Yet there's a formal logic and love of tradition under the apparent anarchy that acts as a classical counterpoise to his romanticism.

Each of the major cuts on "Lucumi Macumba Voodoo" works like a miniature suite. The title track includes Afro-Latin percussion and singing, densely menacing brass and reed ensembles that blend with four cellos, the first truly integrated rock guitar I've

heard in salsa, and a masterly baritone sax solo by Ronnie Cuber. *Colombia Te Canto* opens with an old white-gloves danzón played by cellos with maximum beauty and no camp at all. This is followed by a piano duet between Eddie and his brother Charlie. After an infinite pause comes a real rumba that starts with just drums and Afro-Cuban voices and proceeds to move in and out of more thickly clotted ensemble work, heart-breaking trumpet solos by the great "Chocolate" Armenteros, and more keyboards from Eddie and Charlie.

Nothing is perfect, and a couple of somewhat disco-oriented tracks let down the tension. But even these Eddie shoots full of his on-the-brink front line and percussion, like a shot of 100 proof rum in a Shirley Temple cocktail. I don't know who's going to buy an album so resistant to being stuffed into any of the Biz's handy little bags. I do know that those who do so will get more than they bargained for in all the best senses of the phrase. J.S.R.

Woody Shaw, Stepping Stones: Live at the Village Vanguard. Michael Cuscuna, producer. *Columbia JC 35560*, \$7.98. *Tape: ••JCT 35560, •JCA 35560*, \$7.98.

Trumpeter Woody Shaw is a classic example of that familiar jazz entity, the under-appreciated musician. For as long as I can remember he has been a world class improviser, one who is blessed with originality, highly articulate technical skills, and, best of all, a creative and finely honed sense of pacing. His present group is here presented in live performance at New York City's Village Vanguard, and there are those who will find it almost anachronistic in these days of high energy, high decibels, crossover, and fusion. None of the instruments are electrified, not even Clint Houston's bass or Onaje Allan Gumbs's piano. The latter, in fact, sounds like an inadequately tuned upright, but that presents no problems for Gumbs, who more than makes the best of it. And the material—three tunes by Shaw, one by Gumbs, and one by drummer Victor Lewis—owes more to hard bop than to fusion.

But the performances are alive, stirring, and filled with the kind of exuberance that is at the core of all good jazz. Listen to the strong, aggressive reed work of Carter Jefferson, to Gumbs's two-handed piano playing, and to the exceptionally musical drumming of Lewis. And don't overlook Shaw. He is quite capable of giving such better-known trumpeters as Donald Byrd or Freddie Hubbard a hard run for their money. D.H.

HIGH FIDELITY CLASSIFIED

130 East 59th St., New York, NY 10022.
Phone: 212-826-8393/4
GENERAL: All copy subject to publisher approval. First line caps. Users of P.O. Box MUST supply permanent address and telephone number before ad can run.
CLOSING DATE: 1st of second month preceding cover date.
CLASSIFIED RATES: Per word: 1x—\$1.60; 6x—\$1.50; 12x—\$1.40. MINIMUM 15 words. Words in caps—10¢ extra each. Box numbers: \$2.00 additional per insertion to cover cost of handling and postage. Display: 1 inch—\$275; 2 inch—\$550; 3 inch—\$825. Also 6 and 12 consecutive issue discount rate.
PAYMENT WITH ORDER: Send check, M.O., MASTERCHARGE or VISA No. and expiration date to: Classified Dept., HIGH FIDELITY, 130 E. 59th St., New York, NY 10022.

for sale

AUDIOPHILES WANTED!! 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: ABCO, Dept. CR, 1201 East Main Street, Meriden, Conn. 06450.

WRITE US AND WE'LL SEND YOU THE BEST CATALOG YOU EVER READ!

No kidding. Speakerlab's catalog took longer to write than some of our competitors have been in business. In fact, we created an industry by building great kits so you can afford great speakers. Our catalog is an invaluable manual of speaker function and design. And, it will introduce you to the finest speaker kits made anywhere...with the strongest money-back guarantee. Find out for yourself!...FREE. FREE. that is. Write now. Right now.



Speakerlab
Dept. C-HF, 735 N. Northlake Way
Seattle, WA 98103

STEREO REPRESENTATIVES NEEDED!!! LOWEST POSSIBLE PRICES!!! OVER 100 BRANDS!!! KRASCO Rep., 998 Orange Ave., West Haven, Conn. 06516.

COLLEGE DEALERS—Write for Details on College Program. Fast shipments, low prices, excellent profit. Sound Reproduction, 460 Central Avenue, East Orange, New Jersey 07018.

BUILD YOUR OWN SPEAKERS

Save 50% or more...



FREE KIT BROCHURE I'm interested—send me your free brochure (kits from \$59.00 each).

\$1.00 catalog/manual Give me all the details send me your comprehensive speaker manual on kits, x-overs, raw components and engineering data \$1.00 enclosed.

Acusta Craft

Dept. HF PO Box 12030 Shawnee Mission, Ks. 66212

SAVE up to 80% BY MAIL on: SCOTCH, TDK, BASF, MAXELL, MEMOREX, CAPITOL MUSIC TAPE, CERTRON (over 180 different reel & cassette tapes to choose from) top brand recorders; America's largest collection of taping accessories, too. Same day service. FREE catalog.

America's Recording Tape Specialists

SAXITONE TAPE SALES

1776 Columbia Rd., Washington, D.C. 20009
(202) 482-0800

HI-FI ENTHUSIASTS WANTED!! Earn more than just spare money in your spare time. We need campus representatives to sell name brand stereo components at discount prices in your area. No investment required. Serious inquiries only, please. Contact: Mail Order Dept., K&L Sound Services Co., 75 No. Beacon St. Watertown, Mass. 02172. (617) 926-6100.

A SINGER'S DREAM!



REMOVES VOCAL FROM MOST STEREO DISCS
The Thompson Vocal Eliminator can actually remove most or all of a solo vocalist from a standard stereo record and yet leave the background music virtually untouched! Not an equalizer! We can prove it works over the phone. Write for a brochure and demo record below. COST: \$195.00

ECHO Ambiance

We do it BETTER for LESS

Whether your interest is in using ambiance for a concert hall effect or as an echo chamber for studio recording use, we manufacture a broad line of sophisticated analog delay Echo and Reverberation devices at prices which only direct sales make possible. Prices range from \$159 to \$495.
Write for a brochure and demo record. Include \$1 to cover costs (refundable with order.)
Write to: **LT Sound**, Dept. HF, P.O. Box 1061,
Decatur, GA 30031 (404) 284-5155

PROFESSIONAL HI-FI Home study course available—Instructors include Len Feldman, Julian Hirsch, Larry Klein, Larry Zide. Send \$2.00 for full color AUDIO PRIMER and information on joining Society Audio Consultants (SAC), 19 W. 34th St., Room 1208, Dept. HF NYC, NY 10001.

HORNS—WCOFFERS—MIDS—TWEETERS at tremendous OEM 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 instruments loudspeakers. Send \$1.00 for CATALOG. SRC AUDIO Dept. HF2, 3238 Towerwood Dr., Dallas, Tx. 75234.

AUDIO BARGAINS—FREE LIST. MANY CLOSEOUT/BANKRUPTCY SPECIALS! SCC, BOX 8014 (HF 279), CANTON, OHIO 44711.

THE ABSOLUTE SOUND™, in its new issue, reviews the Audio Research SP-6 (tubes, no less), the Grado Signature III, the Acoustat Monitor, the (new) Quatre gain cell, the Threshold CAS-1, the ReVox straight-line turntable, Three cartridges: the Es'Ans, the Sumo, and the Stanton 881S; the Phase Linear 500 amp; the Soundcraftsmen Class H amp; the Visikon speaker system; the Promethean cartridge; the Mordaunt-Short Pageant speaker system. Also: There are sneak previews of the Threshold 4000 and the Signet moving coil cartridge, plus an interim report on the Spatial Coherence preamp. And, finally, (surprise), a state-of-the-art speaker system—though you'll never guess what Plus: Reference Recordings; Technical Tips, Updated Reports, and a bevy of other special articles. Do yourself a favor. Subscribe. Prices: \$16 (first class, four issues); \$17 (Canada) \$24 (outside North America, air mail). Checks go to The Absolute Sound, Box L, Drawer A, Sea Cliff, New York, 11579.

SEMI-PRO AND CONSUMER AUDIO EQUIPMENT: TEAC/Tascam, Dbx, AKG, Maxell, Delta-Lab, Technics, JBL, Others. Best Prices! Prompt Delivery! WDI, P.O. Box 340, Cary, NC 27511. 919-467-8122.

AMERICA'S LOWEST PRICES. ASTOUNDING AUDIO, VIDEO SELECTION. STELLAR SOUND, 6260 MELODY LANE 1024, DALLAS, TEXAS 75231. (214) 368-7197.

INSIDERS know that AUDIO FORUM MAGAZINE has it all!! SUBSCRIBE: \$18, six issues. Overseas: \$22. BOX 22544 H2, Portland, Oregon, 97222. BAC/MC Honored. MONEY-BACK GUARANTEE!

DYNAKITS, SHURE, SME—PAT-5 BiFet \$208. DEW Audio, Box 177, Hampstead, N.H. 03841. (603) 329-5403.

CAMPUS REPRESENTATIVES WANTED!! For immediate response write: The Sound Outlet, 35 Whitfield Rd., West Somerville, Mass. 02144.

TAPE Cassette Sale!

Minimum order 10 tapes



TDK



CASSETTES

TDK-DC 45	1.19	TDK-SAC 60	2.19
TDK-DC 60	1.32	TDK-SAC 90	3.19
TDK-DC 90	1.79	TDK-ADC 60	1.79
TDK-DC 180	3.29	TDK-ADC 90	2.89

8-TRACK

TDK-45 D 8trk	1.89	TDK-45 AD 8trk	2.39
TDK-90 D 8trk	2.29	TDK-90 AD 8trk	3.19

Soundguard Record Preservation Kit 5.59 ea.

LIFETIME PRODUCT GUARANTEE! ORDER NOW!
Orders shipped within 1-3 days. Please add \$2.00 for ship and hdg per 10 tapes. N.Y.S. Res. add sales tax. NO COD'S.
FREE CATALOG!

CONSUMERS CO.

P.O. Box 550 Dept. HF2

Mr. Vernon, N.Y. 10551 Phone (914) 864-2909

Does your cartridge have TOA? The Super SD-900/E + Super and SD-901/E + Super moving coil cartridges do. If your cartridge does not have TOA you may be paying too much for too little. What is TOA? Total Quality Assurance, and each and every Supex moving coil cartridge has it. For complete information on TOA and Supex moving coil cartridges, see your local Supex dealer or write to: Sumiko, Inc., P.O. Box 5046, Berkeley, CA 94705.

SAVE 50% BUILD YOUR OWN SPEAKER SYSTEM. Write McGee Radio Electronics, 1901 McGee Street, Kansas City, Missouri 64108.

DOLBY UNIT FOR BROADCASTS OR TAPE STEREO review available. Newest . . . IC design encode/decode, highest quality parts, complete kit. HFF INTEGREX, Box 747, Havertown, PA 19083.

miscellaneous

DIAMOND NEEDLES and Stereo Cartridges at Discount prices for Shure, Pickering, Stanton, Empire, Grado Audio Technica and ADC. Send for free catalog. LYLE CARTRIDGES, Dept. H, Box 69, Kensington Station, Brooklyn, New York 11218. For Fast Service, call TOLL FREE 800-221-0906.

PROTECT YOUR ALBUMS. WHITE CARDBOARD REPLACEMENT JACKETS 35c. PLASTIC LINED INNER SLEEVES 15c. POSTAGE \$1.25. OPERA BOXES, 78 SLEEVES AVAILABLE. FREE CATALOG. CABCO 301-3, BOX 8212, COLUMBUS, OHIO 43201.

The Best New Stereo Systems Deserve The Best New Stereo Records (Tapes too!) You need the Monthly SCHWANN RECORD CATALOG available from record shops everywhere or, for a sample copy PP, Send \$2.50 to: ABC-SCHWANN, Single Copy Sales, Dept., 2160 Patterson St., Cincinnati, Ohio 45214.

COLLEGIATE RESEARCH PAPERS. All subjects. 10,250 on file. IMPROVE YOUR GRADES! Send \$1.00 today for 256-page catalog. Rapid Delivery! Box 25916-RR, Los Angeles, Calif. 90025. (213) 477-8226.

The Wilhelm Furtwängler Society, founded in 1970, has many activities, and several chapters throughout the U.S. It publishes four quarterly newsletters annually with many supplements and pictures and translations of the conductor's writings. Send \$5.00 for annual dues to: 6112 West 77th Street, Los Angeles, CA 90045.

SLIPCASES for HIGH FIDELITY Magazine. Simulated blue leather. Holds 6 High Fidelity issues. \$4.95 single case, \$14 for 3 cases, \$24 for 6 cases. USA orders only. Allow 6 weeks for delivery. HIGH FIDELITY Library Cases, Box 5120, Philadelphia, PA 19141.

Free Promotional Albums, Concert Tickets, Stereos, Etc. Information: Barry Publications, 477 82nd Street, Brooklyn, N.Y. 11209.

new equipment for sale

BRITISH AND EUROPEAN EQUIPMENT DIRECT TO YOU. Most quality makes of equipment available at advantageous prices. For price list and price quotes send International Reply Coupon. Send \$2 for the brochures you require. Audio T, Dept. A, 190 West End Lane, London, NW6 1SQ, England, Phone 01-794 7848. Visitors welcome.

SANSUI and PICKERING! BELOW mall order prices! Send to: GSH Super Savings, P.O. Box 86, Eden, N.C. 27288 (919) 627-1919.

ADVERTISING INDEX

For free product literature, use the reader service card on page 89

Key No.	Page No.
1	ADC Professional Products, a div. of BSR Consumer Products Group.....10
	Advent Corp.....79
	Akai America Ltd.....31
50	American Song Festival.....75
3	Ampex Corp.....15
4	Angel Records.....76
5	Audio Technica U.S. Inc.....6
6	Audio Technica U.S. Inc.....80
	BASF Audio.....57
7	Bib Hi-Fi Accessories.....73
	Bose Corp.....113
8	Carston Studios.....86
	Classified Ads.....119, 120
57	Dahlquist.....108
56	DBX, Inc.....70
9	Discount Music Club.....88
	Discwasher, Inc.....20, 93, 117
10	District Sound.....96
17	Dual.....100
11	Electro-Voice, Inc.....11
12	Empire Scientific Corp.....32
13	Eumig (U.S.A.) Inc.....52
14	Fisher Corp.....17
55	Fuji Photo Film U.S.A. Inc., Magnetic Tape Division.....99
15	Hammond Industries.....82
16	HiFi Buys.....98
18	Hitachi Sales.....7
19	Icelandic Airlines.....86
20	Illinois Audio.....98
	Jensen Sound Laboratories.....12, 13
21	J & R Music World.....98
22	JVC America, Inc.....97
	Kenwood.....Cover IV
23	Klipsch & Assoc.....91
24	Koss Corp.....18
	Lux Audio of America.....48
	Marantz Co., Inc.....122, Cover III
25	Maxell Corp.....21
26	McIntosh Laboratory.....78
53	Musical Heritage Society.....71
27	MXR Innovations.....19
28	Nagatronics.....16
29	Nakamichi Research (U.S.A.) Inc.....66
	Nikko Audio.....116
51	Ortofon.....59
30	Park Row Electronics.....118
31	Phase Linear.....29
62	Pickering & Co., Inc.....2
33	Pioneer High Fidelity.....Cover II, 1
	Radio Shack.....14
52	Rotel of America.....74
32	Sansui Electronics Corp.....26
63	Sanyo Electric.....81
34	Scott, H.H., Inc.....23
35	Sharp Electronics.....87
36	Shure Brothers, Inc.....94
37	Shure Brothers, Inc.....95
	Sonikit.....96
38	Sony Corp. of America.....88
39	Sound Guard.....60
40	Source Engineering.....84
	Speakerlab, Inc.....98
41	Stereo Corp. of America.....88
	Stereo Discounters.....121
42	Studer Revox America, Inc.....77
43	TDK Electronics.....25
44	TDK Electronics.....84
45	Teac Corp. of America.....42, 43
46	Technics by Panasonic.....5
	3M Company.....82
47	Top Discount Audio.....96
48	Toshiba America.....83
17	United Audio Products.....100
49	Wisconsin Discount Stereo.....116
54	World Way Enterprises.....118
	Yamaha Audio.....8, 9



Woods—fiercely positive

Phil Woods Quintet: Song for Sisyphus. Norman Schwartz, producer. *Gryphon G782, \$7.98. Tape: ●● G782, ● G782, \$7.98.*

When Phil Woods came to New York more than twenty-five years ago, he quickly established himself as the most adept of the younger Parker-influenced saxophonists. Since then his playing has shown steady growth and maturity while maintaining its early slashing razzle-dazzle. On "Song for Sisyphus," his two-year-old quintet (four of its members have been with him four years) supports with confidence both the virtuosic surface and the distinctive depths of Woods's playing.

Woods is one of the most fiercely positive jazz musicians playing today, yet he can also project shading and color with a full, open, exposed quality that can be overwhelming. For instance, on Harold Arlen's tender *Last Night When We Were Young* he manages to be both delicate and gutty, creating sinuous energy on a piece that can easily become listlessly sentimental. He is exuberant and dashing on Irving Berlin's *Change Partners*, punching up a marvelously agitated, driving, swinging line. On this piece and his own title cut he is always in complete control of his strong, challenging expressions, no matter how involved or forceful they become.

The quintet is primarily an effective backdrop. Woods gives pianist Mike Melillo and guitarist Harry Leahey unaccompanied solos pieces (Berlin's *When My Dreams Come True* and Reinhardt's *Nuages*, respectively), seemingly to compensate for his otherwise overpowering presence. These, though a pleasant change of pace, merely take up space that would've been better utilized by further explorations of Woods's varied talents.

J.S.W.

THE NUMBER ONE NUMBER IN DIRECT BUY HI-FI!

STEREO DISCOUNTERS offer an instant, no-cost, direct line to the most incredible prices on the largest selection of highest quality, name brand hi-fi equipment and accessories available anywhere.

Expertly qualified audio specialists are now manning seven new toll-free lines, going directly into our main warehouse, containing over \$5,000,000 of the latest hi-fi items.

Don't miss out, call us today and find out why our number is number one! Ask for our FREE, 64 page discount catalog or drop us a line. —

1-800-638-3920

CALL NOW—TOLL FREE

Just a tiny sample of the thousands of items we have in stock . . .

RECEIVERS

Technics SA-400 AM-FM-90 Watt RMS, 45 watts per channel RMS at 8 ohms from 20Hz-20,000Hz 0.04% Total Harmonic Distortion **\$245**

Technics SA700-100 watts per channel RMS at 8 ohms from 20Hz-20,000Hz 0.04% Total Harmonic Distortion **\$418**

Pioneer SA780-45 watts per channel RMS at 8 ohms from 20Hz-20,000Hz 0.05% Total Harmonic Distortion **\$240**

AMPS / TUNERS

Technics SL7100-80 watts per channel RMS at 8 ohms 20-20kHz 0.02% Total Harmonic Distortion **\$98**

Dynaco ST120K Amp Kit **\$77**

Dynaco PATK Pre-Amp Kit **\$60**

Kenwood KA-7100 Integrated Amp **\$227**

TAPE DECKS

Teac A-2300SC-3 motor 3-Head open Reel Deck **\$418**

Teac A2300SR Auto Reverse 3-motor Reel Deck **\$555**

Akai GX-230D Auto Reverse 3-motor Reel Deck **\$459**

TURNTABLES

TECHNICS SL 3200 Semi-Auto Direct-Drive with pitch control, strobe, base and dust cover **\$112**

TECHNICS SL-220 Semi-Auto Belt Drive **\$97**

TECHNICS SL-1401 Quartz-Lock Semi-Auto **\$215**

SPEAKERS

PIONEER HiPM-100 4-way with 12" carbon-fiber bass driver **\$182**

PIONEER HiPM-60 4-way with 10" carbon-fiber bass driver **\$141**

SUPER BUYS

Pioneer KP-8005 Super Tuner AM-FM In-Dash Cassette Car Stereo **\$154**

Audio-Vox CA5-600 SuperPower 40 watt RMS In-Dash AM/FM cassette car stereo **\$193**

Jensen C-9945 Triaxial 6" x 9" 20-oz 3-way car speakers **\$55 / pr.**

STEREO DISCOUNTERS

Dept. HF-279 6730 Santa Barbara Court, Baltimore, Md. 21227

Master Charge and Visa Welcome

17 MARANTZ COMPONENTS WHATEVER THE MIX IT'S ALWAYS

Now there's a Marantz component system for everyone! From our most affordable to our finest—with 223 systems priced in between—Marantz delivers the same top Marantz quality and the same stunning Marantz look. There's never a compromise! And with so many systems to choose from, you'll be able to find the exact match for your listening requirements and budget.

A MARANTZ EXCLUSIVE: MIXED SYSTEMS THAT REALLY MATCH.

From the least expensive to the most expensive, all Marantz Pre-Amps, Power Amps, Console Amps, Tuners and Front-Load Cassette Decks feature the same front panel size, the same striking cosmetics, the same top quality design philosophy. So whatever component combination you choose, you'll have a perfect match. Only with Marantz.

BRINGING IT ALL TOGETHER.

Once you have selected a system, only one question



The RM-3700 STACK RACK contains three Marantz components on fixed-positioned shelves, an accessory shelf and divided record compartment behind its full-length smoked-glass door. The Marantz system shown includes the 6170Q Turntable, 2110 Tuner, 1180DC Integrated Amplifier, 5010B Cassette Deck and Design Series 930 Speakers.

remains: Where do you put it? With a Marantz STACK RACK you can bring it all together—with style. The RM-3100 "Professional" STACK RACK (at right) will accommodate up to four Marantz components equipped with optional rack handle adaptors. Or you may prefer the RM-3700 "Decorator" STACK RACK (above) which encloses three Marantz components behind its full-length smoked glass door. A perfect fit in either rack, your entire system will be at your fingertips.

BUILD NOW. ADD LATER.

Once you see and hear what Marantz components have to offer by way of more performance per dollar, striking appearance and unheard of flexibility, you'll be sold. You'll have a perfectly matched system tailored to your specific needs from as little as \$650* to \$2100.* And don't hesitate when you want to upgrade any part of your system. Any Marantz component you upgrade to will match what you already have.

MIX AND MATCH BY MARANTZ—IT'S ALL FOR YOU.

17 separate components from Marantz. Designed to mix and match into 225 different systems to give you unprecedented flexibility. Whoever you are, Marantz has the perfect system for you.

The three unit Marantz system shown at right includes the 2100 Tuner, 1090 Integrated Amplifier and the 5000 Cassette Deck with 6270Q Turntable. The four unit Marantz system shown at the far right includes the 2130 Tuner, 3650 Pre-amplifier, 5030B Cassette Deck and the 300DC Amplifier with a 6370Q Turntable.

25th Anniversary **marantz**®

**225 MARANTZ SYSTEMS.
S A MATCH - FROM \$650* TO \$2100.***



SOMEDAY, EVERY AMPLIFIER WILL BE HIGH SPEED.



From the people who brought you dual power supplies and DC amplification comes high fidelity's most significant breakthrough in years.

The High Speed Transistor from Kenwood. An improvement so important that it will actually change the way you evaluate amplifiers. An improvement that will be part of every amplifier that claims to be state of the art.

Today, only Kenwood has it. Because Kenwood developed it.

Our engineers discovered that even with exceedingly low harmonic distortion, amplifiers typically lack the ability to react quickly enough to an input signal, particularly at the mid and upper frequencies. This is called transient intermodulation distortion (TIM).

The result can be seen on an oscilloscope as a square wave that's distorted. And heard as poor spatial imaging and loss of detail. While some manufacturers have dealt with a square wave's rise time, only Kenwood High Speed Transistors produce high frequency square waves that decay as fast as they rise.

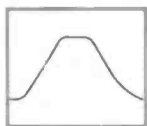
That's because Kenwood High Speed Transistors

allow a much faster change in voltage (slew rate) than ever before. So no matter what the music demands, the amplifier can match it exactly.

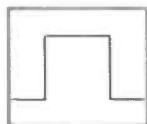
What this means to you is depth and definition that will take your breath away. High frequencies are completely clear and totally non-fatiguing. You'll hear each violin individually in a string section. Each audible harmonic of a single piano note. Even the separate handclaps in recorded applause.

High Speed Transistors are used for the first time in our Audio Purist Group, shown above. Because it takes a very sophisticated and demanding listener to appreciate this new technology.

We're convinced that in a world of compromise, some people still demand the very latest state of the art. Building high fidelity equipment for them will always be our commitment. For more information and complete technical specifications, please write us.



Pulse waveform response of a conventional amplifier.



Pulse waveform response of Hi-Speed amplifier.

HI-SPEED

Hear the future of high fidelity.



KENWOOD®

Kenwood, P.O. Box 6213, Carson, CA 90749. In Canada: Magnasonic Canada, Ltd.