

METAL TAPE:
IS IT WORTH IT?

MARCH 1980 • \$1.25

Stereo Review®

BUYER'S GUIDES TO: CASSETTE DECKS AND CASSETTE TAPES

Pianist Alicia de Larrocha: Fifty Years of Concertizing

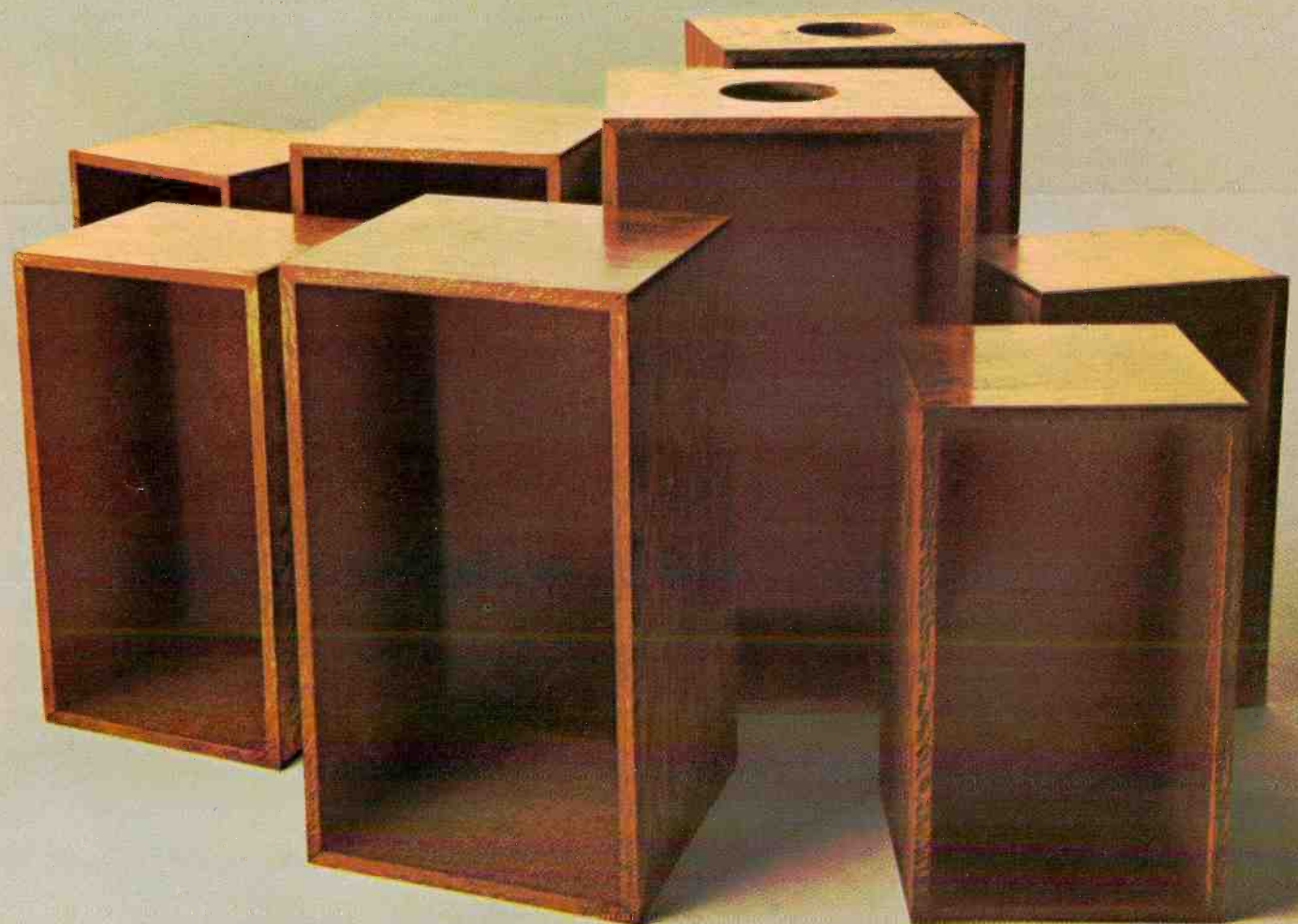
EQUIPMENT TEST REPORTS: JVC QL-F6 Turntable

Ohm M/N Speaker System • Phase Linear 7000 Series Two Cassette Deck

Sennheiser HD-420 Headphones • Sony STR-V55 AM/FM Stereo Receiver

• **SPECIAL TAPE ISSUE** •

PLUS: a basic
vocabulary of
tape recording



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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.

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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.

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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.

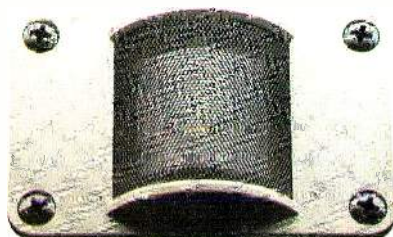
All of which begins to explain why, unlike speakers that sound great on only part of the music, HPM speakers sound great on all of it.

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

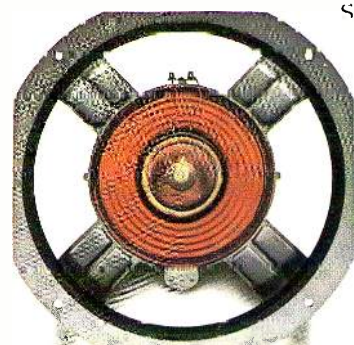
If you think what went into them sounds impressive, wait till you hear what comes out of them.

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



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INTO HPM SPEAKERS THAT
MAKES THEM SOUND GREAT ON
EVERY PART OF THE MUSIC.**



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

FORMERLY HI FI/STEREO REVIEW (ISSN 0039-1220)

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MARCH 1980 • VOLUME 44 • NUMBER 3

The Equipment

NEW PRODUCTS	
<i>Roundup of the latest audio equipment and accessories</i>	13
AUDIO NEWS	
<i>Good News: Digital-recording Standards</i> DAVID RANADA.....	20
AUDIO QUESTIONS AND ANSWERS	
<i>Fluttering Meters, Voice-coil Impedance, Bass Processing</i> LARRY KLEIN.....	22
AUDIO BASICS	
<i>Cassette Versus Open Reel</i> ROBERT GREENE.....	24
TAPE TALK	
<i>Prerecorded Cassettes for the Critical</i> CRAIG STARK.....	26
TECHNICAL TALK	
<i>Metal Tape</i> JULIAN D. HIRSCH.....	33
EQUIPMENT TEST REPORTS	
<i>Hirsch-Houck Laboratories test results on the Phase Linear 7000 Series Two cassette deck, JVC QL-F6 turntable, Sennheiser HD-420 headphones, Ohm M/N speaker system, and Sony STR-V55 AM/FM stereo receiver</i> JULIAN D. HIRSCH.....	34
BUYER'S GUIDE TO CASSETTE DECKS	
<i>How to make the best possible buy for your needs</i> STEVE OHR.....	60
A BASIC VOCABULARY OF TAPE RECORDING	
<i>Shopping is easier when you know the lingo</i> DAVID RANADA.....	68
CASSETTE TAPE	
<i>Discovering the type and brand that give you the best results</i> JOHN DALE.....	74

The Music

ALICIA DE LARROCHA	
<i>A piano superstar takes fifty years of concertizing in stride</i> WILLIAM LIVINGSTONE.....	78
BEST RECORDINGS OF THE MONTH	
<i>Schoenberg: Gurrelieder</i> 82	<i>Lucy Lowe: "Vaudeville Songs"</i> 82
<i>Shostakovich: Three Song Cycles</i> 84	<i>The MUSE Concerts: "No Nukes"</i> 88
<i>Johnny Nash: "Let's Go Dancing"</i> 84	<i>The Debussy and Ravel Quartets</i> 91
CLASSICAL DISCS AND TAPES	
<i>J. S. Bach: German Organ Mass</i> 93	<i>Phantasmagoria Musica</i> 102
<i>Beethoven: Op. 131 Orchestrated</i> 96	<i>Berg: Lulu Complete at Last</i> 104
<i>Debussy: Pelléas et Mélisande</i> 100	<i>Vox Boxes Go Cassette</i> 107
POPULAR DISCS AND TAPES	
<i>Carrie Smith: "Do Your Duty"</i> 109	<i>Sirone: Avant-garde Jazz Bass</i> 126
<i>Pink Floyd: "The Wall"</i> 110	<i>Star Trek Soundtrack</i> 130
<i>Different Strokes: Jazz Violin</i> 118	<i>Havana Jam</i> 134

The Regulars

BULLETIN	WILLIAM LIVINGSTONE.....	5
SPEAKING OF MUSIC	WILLIAM ANDERSON.....	6
LETTERS TO THE EDITOR		8
THE POP BEAT	PAULETTE WEISS.....	56
GOING ON RECORD	JAMES GOODFRIEND.....	59
SIMELS LIVE	STEVE SIMELS.....	140
ADVERTISERS' INDEX		140

COVER: Design by Borys Patchowsky; photo by Bruce Pendleton. Eumig's computer-interfaceable FL-1000 cassette deck is shown in its two alternate panel stylings (see page 66).

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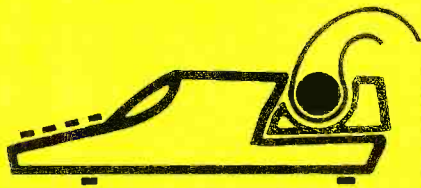
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Stereo Review

BULLETIN

Edited by William Livingstone

● CBS HAS ENDORSED THE RCA SELECTAVISION videodisc technology, having signed an agreement in January that gives CBS the right to manufacture videodiscs worldwide using RCA's system. Said RCA board chairman Edgar Griffiths, "CBS' outstanding programming, manufacturing, distribution, and marketing capabilities make it an ideal participant in the introduction of the most significant new consumer product since color TV." RCA estimates that within ten years the market for videodisc players could be more than five or six million annually. Combined sales of players and discs at that time could exceed \$7.5 billion per year. SelectaVision is a capacitance system using a grooved disc played by a diamond stylus. RCA plans to introduce it in the first quarter of 1981--in mono only. Since the CBS software must be compatible with the RCA players, it too will be in mono only, alas.

● SANYO'S PLUS 10 PCM DIGITAL AUDIO ADAPTOR turns any videocassette recorder into a digital audio recorder. Packed with each Plus 10 unit is Ry Cooder's digitally recorded album "Bop Till You Drop" on a Beta-format videocassette, which must be played through your hi-fi system, not the TV speaker. Suggested retail price of the Plus 10: \$3,999.95.

● CONDUCTORS: Film-score composer John Williams (Jaws, Star Wars, Superman) has been named conductor of the Boston Pops Orchestra, succeeding the late Arthur Fiedler...Varujan Kojian is the new music director of the Utah Symphony, succeeding Maurice Abravanel, who has retired...Colin Davis, music director of the Royal Opera House, Covent Garden, was knighted by Queen Elizabeth in the New Year's honors.

● STEVE MARTIN'S HIT MOVIE THE JERK and Steven Spielberg's expensive flop 1941 will be available on MCA videodisc almost before their theatrical runs are over. Both enter MCA's catalog in April, in stereo, with a price tag of \$24.95. All fourteen of the Sherlock Holmes movies starring Basil Rathbone and Nigel Bruce are available on videocassettes. Price: \$59.95. For dealer information write Allied Artists Video Corp., 15 Columbus Circle, New York, N.Y. 10023.

● ALBUMS CERTIFIED PLATINUM BY THE RIAA recently are: "Risqué" by Chic (Atlantic), Michael Jackson's "Off the Wall" (CBS), Dan Fogelberg's "Nether Lands" (CBS), "Identify Yourself" by the O'Jays (Philadelphia International), Foreigner's "Head Games" (Atlantic), and Led Zeppelin's "In Through the Out Door" (Atlantic).

● A CONTEST FOR OPERATIC TENORS will be held in Milan, Italy, June 10-15, 1980. Sponsored by the Enrico Caruso Museum, the contest is limited to those born between January 1, 1955, and May 31, 1962. First prize: 1,500,000 Italian lire. Deadline for applications is March 31. Write Associazione Museo Enrico Caruso, Via degli Omenoni 2, 20121 Milan, Italy.

● VIRTUALLY NOISE-FREE RECORDINGS have been produced by M & K Records and dbx, Inc., who have combined the new digital recording technology to eliminate taping noise with dbx encoding to eliminate playback noise. A dynamic range of 90 dB is claimed for the recordings, which must be played through a dbx decoder. The first six dbx digital albums are classical, played by the Philharmonica Hungarica under Zoltán Rozsnyai. They sell for about \$16 and are available in record stores and audio salons or by mail from dbx, Inc., 71 Chapel Street, Newton, Mass. 02195. David Blackmer, dbx's president, says, "These recordings come very close to the sound quality that will ultimately be provided by digital audio playback systems, but the development of such mass-produced equipment for the consumer is still some five to ten years in the future."

● EXXON'S GREAT PERFORMANCES on PBS this month include The Most Happy Fella with Giorgio Tozzi and the Broadway cast on March 5. Two hour-long tributes to Fred Astaire will be shown on March 8 and 9. On March 16, Beverly Sills will be the host on "Gala of Stars," a salute to performing-arts programming on public television. Guests will include Merrill Ashley, Plácido Domingo, Isaac Stern, Natalia Makarova, Luciano Pavarotti, Leontyne Price, Renata Scotto, and many others. Check local listings for exact broadcast times in your area.

Speaking of Music...

By William Anderson



HAVE WE GOT IT ALL TAPED?

AS PROOF of its wonderful complexity and inaccessibility to common understanding, every new human calling has as its first duty the invention of a jargon that will illuminate its arcana for initiates while keeping outsiders in the dark. The "discipline" of computer science has so far been doing quite well along these lines. Though the useful word "programming" has already escaped into the larger world of meaning, an aura of technological mystery still surrounds such coinages as "to access" (as in "the information can be accessed from the data bank) and "to interface" (to plug one machine into another so they can work together). If these new verbs sound as grotesque to your ear as they do to mine, rest assured that they will shortly acquire the old-shoe familiarity already attained by "programming" as computerized "hardware" continues its inexorable invasion of our living rooms, kitchens, and maybe even bedrooms.

All this might seem rather remote from audio concerns, but a glance at this month's cover will demonstrate otherwise, for there you will find a pair of cassette decks carrying on a conversation with ("interfacing" or "interfacing with"—this language doesn't have a grammar yet) an "outboard" computer acting as a data bank. An even more intimate involvement with computer technology is evidenced in the Phase Linear cassette deck tested in this issue: it has built into it (as do similar units from other manufacturers) a computer program that can be "accessed" by pushbutton to test the tape you are about to use and automatically set bias, equalization, and recording level for optimum results. The difficulty of choosing the proper tape for best performance with a given deck is great enough that one can safely predict that such a feature will soon be standard at all but the very lowest price level.

This and other developments are clear indications that we are far from discovering tape's limits as a recording medium. It is one of the characteristics of a dynamic technology that inventions within it often outstrip practical applications. This seems to be true—at least temporarily—of metal tape: it is simply too good for most of our current recording needs. But if the pattern of ever-increasing information density that has so far characterized tape's developmental history continues, we can expect it to be the means, say, of elevating the 15/16-ips mini- (or micro-) cassette format to hi-fi status. It is easy to imagine its appearing in someone's mini-component line for home installation, though the difficulty of providing metal tape's high bias current probably rules out its use in battery-portable units.

THE great cost of the electronics involved makes digital tape recording in the home a very unlikely prospect for the foreseeable future, but the recent establishment by Japanese manufacturers of digital-recording standards for some studio and semiprofessional equipment does have an interesting sidelight for the home taster. One of the features of the standards is a computer anti-piracy "code" that will make it extremely difficult if not impossible for anyone to counterfeit a digitally recorded audio signal while it is in digital form. Once the digital signal has been decoded to an analog electrical signal in playback, however, dubbing can take place as usual, whether from videotapes, videodiscs, or digitally encoded audio discs. This causes the recording industry no great concern, for as raw tape prices go up, dubbing becomes increasingly uneconomic.

In the meantime, no one seems to have come up with any easy solution to the quality problems of conventional prerecorded tape, for all of them are cost-related: the best tape + the best cassette shell + real-time dubbing = \$\$\$\$. Some things just don't seem to change much, do they?

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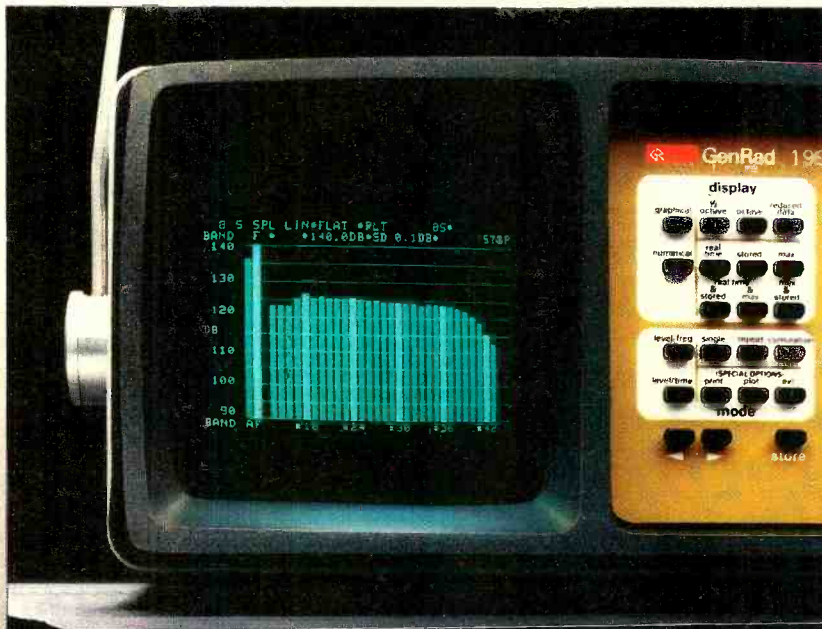


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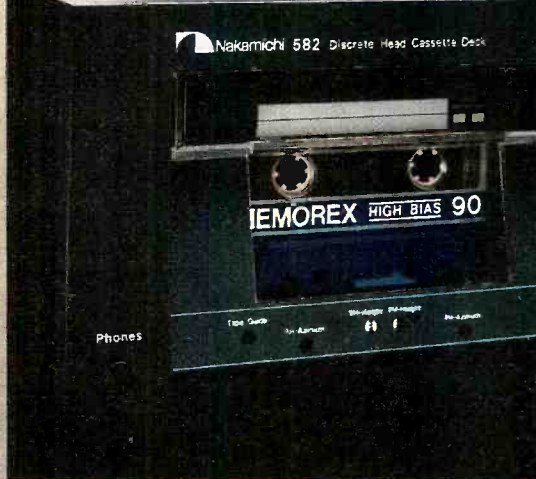
The GenRad 1995 Real-Time Analyzer is among today's state-of-the-art devices for accurately measuring and displaying audio signals. That's why we used it to show that MEMOREX HIGH BIAS is today's state-of-the-art high bias cassette tape.

When tested at standard recording levels against other high bias tapes, none had a flatter frequency response than MEMOREX HIGH BIAS.

And, the signal/noise ratio of MEMOREX HIGH BIAS proved to be unsurpassed at the critical high end.

Proof you can't buy a high bias cassette that gives you a truer reproduction. And isn't that what you buy a high bias tape for?

Is it live, or is it
MEMOREX



The GenRad 1995 Integrating Real-Time Analyzer measured signals from a Nakamichi 582 cassette deck. Input signal source was "pink noise" at 0dB (200 nanowebers—standard record level). If you'd like a copy of the test results, please send a self-addressed, stamped business-size envelope to the address below. Ask for the GenRad Test.

For unbeatable performance in a normal bias tape, look for Memorex with MRX₃ Oxide, in the black package.

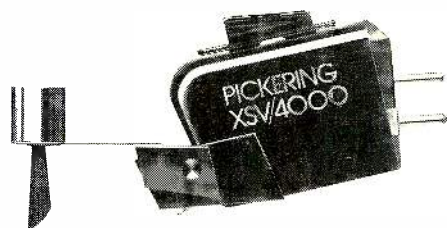
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LETTERS TO THE EDITOR

Pete Loves Bette

● Peter Reilly's January "Best of the Month" review of Bette Midler's "Thighs and Whispers" is the funniest, wittiest, most passionate, and most giddily appreciative love letter I have ever read. I went out and bought my first Midler record so I would have something to remember Mr. Reilly's review by. Anyone that unreservedly loved has to be worth paying attention to. Now, after being "blown away-ay-ay" by Bette, I am stuck with two possibly unanswerable questions: Who inspired whom? Does it matter? Bravo! to both Pete and Bette.

DON MECHLING
Oakland, Calif.

Audio Terminology

● I am a beginning audiophile in need of a little assistance. Recent issues of STEREO REVIEW have been very interesting and have helped spur my interest in audio, but they have also made me quite aware of my ignorance. Most of the technical terms or abbreviations in the articles leave me confused. I'm considering purchasing a new stereo system and would like to feel a little more confident in my knowledge of audio terminology and concepts before making any decisions. Can you refer me to some type of beginner's handbook or audio encyclopedia?

MAX T. GLAUSER
Lomita, Calif.

For a start, see the tape-recording glossary on page 68 of this issue. For further reading, the Institute of High Fidelity's Official Guide to High Fidelity (\$5.50 postpaid from the IHF, 489 Fifth Avenue, New York, N.Y. 10017) is highly recommended.

Discophiles and -phobes

● I have enjoyed STEREO REVIEW for a year now, but I am somewhat surprised at the neglect of an ever-growing phenomenon: disco. Both the reviewers and the readers seem to be caught up in disillusioned rock, country, and classical forms that are dead and should be

buried. People such as Giorgio Moroder, Donna Summer, and Gino Soccio are dedicated professionals and will not let disco sink like a passing fad. They can't, because disco is not like watching Foreigner from the two-hundredth row through binoculars; it offers feeling and *involvement* through participation. Let's all toast the achievements of disco artists and producers in the Seventies; keep the beat, everybody, and hats off to the music of the Eighties.

STEVEN ANSARELLI
Suffern, N.Y.

● Hooray for Ty Hoffmann's January letter about hating Kiss and disco! Everyone I know is an anti-disco fanatic, and I agree with them. Disco is a bunch of senseless noise accompanied by a bunch of talentless "singers" (when was the last time you saw disco performers with any sort of musical instrument?), and Kiss is a bunch of gut-wrenching second-generation rock "artists" who have absolutely no originality. I realize that music is a matter of personal taste, but who can stand that ominous disco beat? At least rock-and-roll has some sort of message, unlike disco, which only wants the world to "get down, boogie-oogie-oogie." And the antics of Kiss rival those of the late Sid Vicious. Please, world, can't you come up with something better?

LEON THOMASSON
Loudonville, N.Y.

Harold's Cello

● Regarding the Rodrigues cartoon on page 42 of the January issue: has Harold been in Italy so long that he's forgotten the difference between a cello and a viola?

ROGER D. WHITTEMORE JR.
Swampscott, Mass.

No. Chalk it up to inflation.

Wild Bill Davison

● I appreciated the news (in January STEREO REVIEW) about the great Storyville Jazz (Continued on page 10)

INVEST IN METAL.

AKAI's new metal decks with Super GX™ Heads significantly improve specs with all tape formulations.

Once in a great while, some truly important advancements in tape recording technology are introduced.

Metal tape is one of them. AKAI's new Super GX Head is another.

Found exclusively on all new AKAI metal-capability cassette decks, Super GX Heads reproduce unsurpassed, crisp sensitive sound.

Guaranteed* for 150,000 hours, Super GX Heads improve frequency response by up to 2,000 Hz, signal-to-noise ratio as much as 6 dB and expand dynamic range, as well. With every tape formulation you use.

With a head this impressive, we had to design a full complement of metal decks to match. The GX-F90 is our top-of-the-line, loaded-with-features edition. With the 3-head performance of our Super GX Combo Head, High Current Erase Head to accommodate metal tape,

*limited warranty
†™Dolby Labs, Inc.



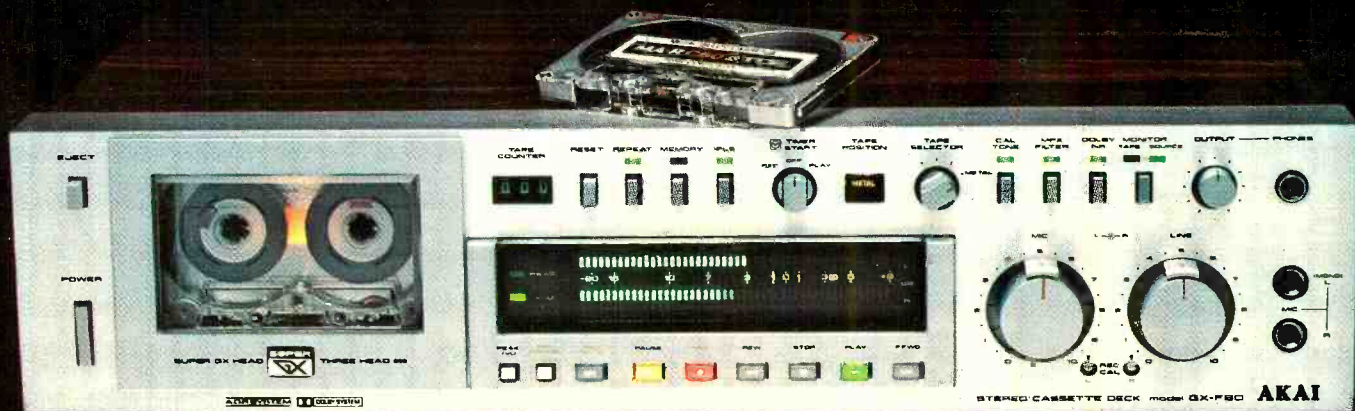
Instant Program Location System, Dual Process Dolby;† two-color fluorescent bar meters, tape/source monitoring, fine bias adjustment, mic/line mixing, memory rewind and auto-repeat, just to name a few. And take a look at these specs: Frequency Response 25-21,000 Hz (± 3 dB using metal tape), S/N Ratio 72 dB (Dolby on) at metal position, Wow/Flutter less than 0.03% WRMS.

The other three new decks share many of the same outstanding specs and features. But no matter which one you choose, you can feel confident that dollar-for-dollar, spec-for-spec, you've made a sound investment you'll want to live with for a long time.

See for yourself at your AKAI dealer, or write AKAI, P.O. Box 6010, Compton, CA 90224; in Canada, AKAI AUDIO VIDEO CANADA, 2776 East Broadway, Vancouver, B.C., Canada V5M 1Y8.

AKAI

You never heard it so good.



reissues. But though reviewer Joel Vance is right to use the past tense in references to Eddie Condon, who is deceased, I hope he soon drops the "had" with respect to Wild Bill Davison. I heard Davison play last July, and his exuberant cornet is still hot and searing, just oozing the "passion" Mr. Vance seeks. His musical "pranks"—from guttural smears and growls to soaring explosions—are his trademark. Give me such dynamics any day rather than the flat, lifeless phrasings of the laid-back "studio" musician. Davison's "antics" express the sense of humor (which *used* to be one of the elements of jazz) of a man who gives 120 per cent of himself every time he steps up on a bandstand. Would that our embouchures hold up as well by age seventy-

four, quite an extraordinary accomplishment in itself.

DOUG ARMSTRONG
Ottawa, Ontario

one of the forever-remembered stars like Mary Pickford, Charlie Chaplin, and John Wayne.

NORMAN W. M. ENGLANDER
Dexter, N.Y.

Miss Piggy, Star

● I was delighted with the two articles on records by the Muppets (*The Muppet Movie* and John Denver and the Muppets' "Together") in the December issue. Miss Piggy deserves an award for Actress of the Year, and it should be handed to the Muppet herself; the person who makes her talk can bathe in reflected glory behind her petticoats. I would not be surprised if Miss Piggy becomes

Damp Speakers

● I support the observation by reader Arthur G. Niehaus ("Audio Q. and A.," December 1979) that loudspeakers sound muddy (more bass) after a few days of high humidity. Sometimes the muddy sound can be traced back to poor reception on bad-weather days (when there's a different color balance on the TV screen also). Wouldn't it be a good idea to specify that speaker tests are being done at, say, 60 per cent humidity, sea level, and 68 degrees F.?

FRANCIS KWA
Paramus, N.J.

Hmmm... maybe. But how many people live at sea level?

● I have been aware of the effect of humidity on speaker cones for some time, and my solution is to wring the cones out by hand (usually at the same time I demagnetize tape heads, so as to make a routine out of the procedure). Of course, the necessary precautions must be taken (disconnecting the electrical supply) to avoid the well-known hazards arising from the conductivity of water.

L. W. LAKRITZ
Beloit, Wis.

Technical Director Larry Klein responds (dryly): Is that an aqueous solution?

Overture to Offenbach

● In a December review of the new Angel recording of Offenbach's *Orpheus in the Underworld*, George Jellinek wonders why there is "a brief (though appropriately theatrical) curtain raiser instead of the familiar potpourri-type overture." That "familiar potpourri-type overture" is not by Offenbach but was put together by Carl Binder for the first production of the work in Vienna. Although I do not have a score to confirm it, I assume that the overture used in the recording is the one Offenbach himself wrote.

WALTER P. SHEPPARD
Vice President, WITF-TV/FM
Hershey, Pa.

George Jellinek replies: I welcome Mr. Sheppard's information and assume he is right. But, Binder or no Binder, there are countless recordings of the "familiar" overture, and therefore Angel's liner notes should have explained why another one was used even if it is the original.

Correction

● There was a misprint in the "Laboratory Measurements" section of the December 1979 test report on the Electro-Voice Interface:C Series II loudspeaker. The measured low-frequency distortion of the unit was 7 per cent at 30 Hz, not (as printed) 7 per cent at 80 Hz. This 30-Hz distortion level represents fine bass performance. We regret the error.

GUARANTEED to improve — and enhance — any fine stereo component system!

The Patent-Pending DIFFERENTIAL COMPARATOR circuitry of the "SCAN-ANALYZER"/EQUALIZER IS THE KEY TO HIGH PRECISION ACCURATE EQ analysis. The basic simplicity of the DIFFERENTIAL COMPARATOR circuitry makes it possible for even a novice to accurately EQ his room and his system, yet that same circuitry is so highly accurate it can actually be used for 0.1 dB laboratory measurements in EQ analysis. This combination of

equalizer and analyzer creates a functional component that should be an integral part of every high quality home stereo system. The "SCAN-ANALYZER"/EQUALIZER with its accompanying COMPUTONE CHARTS, can be used in a home stereo system for so many important functions we can't begin to list them here. See your nearest Soundcraftsmen Dealer, or circle Reader Card, for complete information.

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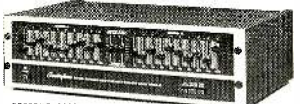


SP4001 \$549

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EA5003 \$949.



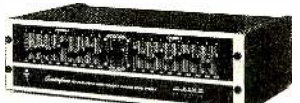
RP201-R \$299



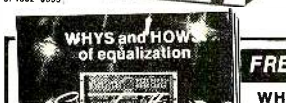
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TG3044-R \$550.

SEND \$6.00 FOR EQUALIZER-EVALUATION KIT 1-12" LP TEST RECORD, 1 SET OF CHARTS, 1 CONNECTOR, 1 INSTRUCTION FOLDER
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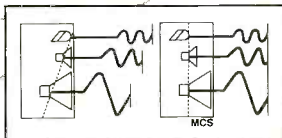
CIRCLE NO. 48 ON READER SERVICE CARD

tech talk:

Phase linearity.

explained.

To understand what an MCS Series® Linear Phase speaker can do, you have to understand what a conventional speaker can't do. A conventional speaker can't deliver all the sound it produces to your ear at exactly the same instant. The major cause of this lies



in the way a conventional speaker is constructed. As you can see by the diagram, a conventional speaker is arranged with the woofer (bass), mid-range and tweeter (small high-range speaker) mounted so that their outer edges are on the front surface. As you can also see, these speaker elements differ in depth. That means the acoustical centers in the middle of each speaker which actually produce sound are also staggered. And so is the sound reaching your ear. MCS Linear Phase speakers start out with specially designed speaker elements

and crossover networks. Then the elements themselves are staggered (see diagram again) in such a way that their acoustical centers are precisely aligned. The result is sound to make you think you've never heard stereo before. But don't take our word for it, listen to your ears. After all, where MCS Series Linear Phase speakers are concerned, one sound is worth a thousand words. MCS Series Linear Phase speakers. Only at JCPenney.

Model 8310 2-way Bass Reflex \$119.95 (each)

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Full 5-Year Warranty on MCS Series® speakers. Full 3-Year Warranty on MCS Series receivers, turntables, tapedecks, tuners and amplifiers. If any MCS Series component is defective in materials and workmanship during its warranty period, we will repair or replace it—just return it to JCPenney.

Prices higher in Alaska, Hawaii and Puerto Rico.



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Series

IT MAKES EVERYTHING CLEAR.

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TDK's new improvement has nothing to do with the sound. It's the package.



Each TDK package is now designed to catch your eye as never before. Clean, modern lines. Bright new colors. Bolder designations in front. Full tape description in back, including sound characteristics, formulation, bias and a frequency response chart to let you know precisely what you're buying without having to hunt for a salesman.

And don't expect the improvements to stop there. Inside there are complete recording and cassette care tips. Invaluable for preserving the life of each cassette, even though each TDK cassette is protected by a full lifetime warranty.* There's also a convenient, tear-out index card to help you build a perfect reference system.

Once inside, TDK couldn't stop improving. There's now a wider cassette window.

Through it you'll be able to watch two red double hub clamps registering tape direction as they turn. Just when the improvements seem to end, TDK tape technology begins. TDK SA's cobalt adsorbed gamma ferric formulation continues to set the high bias standard around the world. TDK AD, the tape with the hot high end, is now Acoustic Dynamic. You'll see it in brand new blue and silver colors. TDK D, another member of TDK's dynamic series, makes many premium normal bias cassettes sound ordinary and overpriced.

That's all we have to report for now. But there will be more to come. Part of TDK's philosophy is: when every improvement has been made, improve again.



Supplier to the U.S. Olympic Team



TDK
The machine for your machine

*In the unlikely event that any TDK cassette ever fails to perform due to a defect in materials or workmanship, simply return it to your local dealer or to TDK for a free replacement.

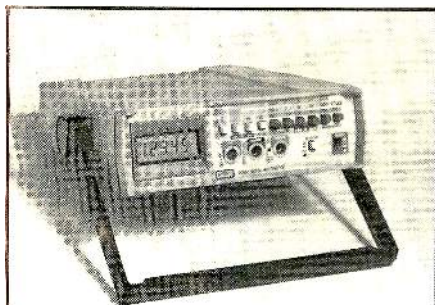
New Products latest audio equipment and accessories



B.I.C. Turntable Is Controlled by Microprocessor

□ The SP85 fully automatic single-play turntable from B.I.C. has a quartz-crystal, servo-controlled, digital drive system. The platter is belt-driven by a low-speed, twenty-four-pole synchronous motor. A four-character LED readout indicates the actual platter speed, which is adjustable in 0.01 per cent increments from +3 to -3 per cent. The readout also doubles as a 100-minute stopwatch for timing records or cassettes. The SP85 tone arm has a pivot-to-stylus distance of 9 inches and a maximum tracking error of 0.27 degree per inch. The tone-arm tube unplugs for changing cartridges. The turntable includes viscous-damped cueing with a cue-rate control, antiskating adjustments, a base with shock-mount feet, and a dust cover. Price: \$240.

Circle 120 on reader service card

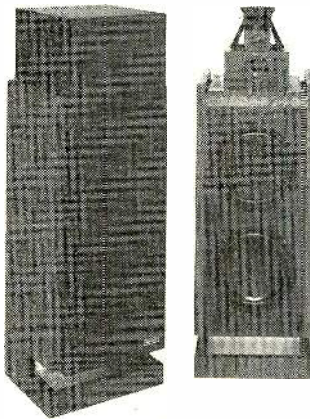


Decibel-reading Digital Voltmeter From Fluke

□ The traditional use for a digital voltmeter (dvm) in the audio lab is for measurements of voltage, current, and resistance, with decibel-type measurements left to mechanical-move-

ment meters. The Fluke 8050A microprocessor-based dvm offers -70 to +60 dBm, 20- to 20,000-Hz readings with 0.01-dB resolution. The reference impedance for the measurement is user-selectable from sixteen standard impedances ranging from 8 to 1,200 ohms. In addition to the standard dvm functions, a "relative reference" function allows any measurement to act as the 0-dB or reference point with subsequent measurements indicated as plus or minus deviations. The d.c. accuracy of the meter is 0.03 per cent on all ranges; true-rms a.c. accuracy is 1 per cent from 20 to 20,000 Hz. Resistance accuracy is 0.1 per cent. Price: \$329. John Fluke Mfg. Co., Inc., Dept. SR, P.O. Box 43210 MS #2B, Mountlake Terrace, Wash. 98043.

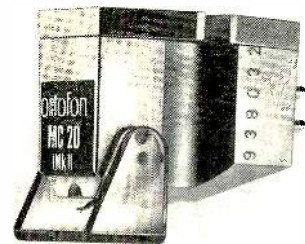
Circle 121 on reader service card



Dynaco Speaker Has Piezoelectric Super-tweeter

□ Dynaco's A350 four-way speaker system has a passive radiator along with a 10-inch woofer said to provide greater bandwidth, reduced adiabatic distortion, and higher efficiency than acoustic-suspension designs. The 3-inch midrange and 4/5-inch tweeter are phase-aligned with the woofer. A phase-aligned piezoelectric super-tweeter covers the frequency range from 11,000 to 25,000 Hz and radiates vertically into a cone-shaped horizontally reflecting baffle. Crossover frequencies are 500, 3,500, and 11,300 Hz. Sensitivity is 89 dB output at 1 meter with a 1-watt input. Frequency response extends from 35 to 25,000 Hz ± 3 dB. The 43 x 14 x 14 1/2-inch cabinet is finished in an oiled-walnut veneer with a dark-brown grille. Shipping weight of the system, including an integral pedestal, is 87 pounds. Price: \$390. Dynaco, Inc., Dept. SR, 110 Shawmut Road, Canton Mass. 02021.

Circle 122 on reader service card



Ortofon Cartridge With Special Stylus Damping System

□ The wide-range damping system used in the Ortofon MC20 MkII moving-coil cartridge is made up of two layers of a rubber compound sandwiching a metal disc to control the position of the cantilever. It is claimed that at low frequencies both dampers provide the necessary compliance, while at high frequencies one damper decouples to give lower moving mass. Rated frequency response is 20 to 20,000 Hz ± 1 dB with channel separation of at least 25 dB at 1,000 Hz and 15 dB at 15,000 Hz. The nude-diamond stylus has a wide-contact-area shape and tracks at 1.7 grams with a vertical tracking angle of 20 degrees. Cartridge weight is 7 grams, and a load impedance of more than 10 ohms is required. Cartridge output is 0.09 millivolt at a groove velocity of 5 centimeters per second. Price: \$350.

Circle 123 on reader service card



Maxell Introduces Pure-metal Cassettes

□ Claiming to have reduced tape-particle oxidation through their SP process, Maxell has introduced 46-, 60-, and 90-minute MX-series pure-metal-tape cassettes using the metal-tape bias setting and 70-microsecond

(Continued overleaf)

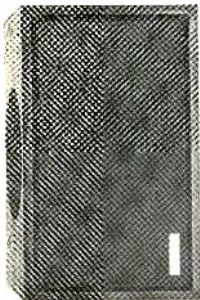
ALLISON™: leaders in acoustic research

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In 1954 Edgar Villchur, by means of his revolutionary acoustic suspension design, demonstrated the advantages of treating the woofer and its enclosure as a system rather than as separate components. Today, nearly all loudspeakers embody this concept. Roy Allison (a professional associate of Mr. Villchur for many years) has now extended the "system" one logical step further, to include the listening room itself. The result is

an improvement by one order of magnitude in the accuracy of the reproduced sound field.

Allison Acoustics manufactures six models of Room Matched loudspeaker systems priced from \$125 to \$441 each. Visit your Allison dealer or contact us directly for literature which includes complete specifications.



ALLISON: FIVE \$160/168 price varies with shipping distance

ALLISON ACOUSTICS INC. 7 Tech Circle, Natick, Massachusetts 01760

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equalization. Also claimed for the MX Met-axial series of tapes is minimal coating shedding, an 8-dB increase in high-frequency headroom, and a 2-dB increase in mid- and low-frequency headroom compared with conventional top-of-the-line cassettes. The formulation employed provides optimum results over a wide range of bias settings. Prices: MX 46, \$11.25; MX 60, \$12.50; MX 90, \$14.95.

Circle 124 on reader service card

crosecond or Dolby-B 25-microsecond pre-emphasis. Simple screwdriver settings adjust for the standard Dolby-level tone. Claimed noise reduction is greater than 9 dB (CCIR/ARM weighted). Distortion is 0.05 per cent, and signal-to-noise ratio is 79 dB at Dolby level. Output at clipping is about 18 dB above Dolby level. Dimensions are 8 1/2 x 2 1/4 x 4 inches. Price: \$99.50. Integrex, Inc., Dept. SR, P.O. Box 747, Havertown, Pa. 19083.

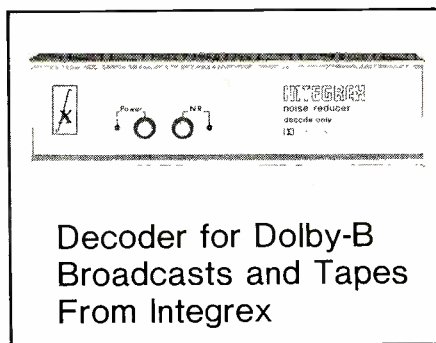
Circle 126 on reader service card



Versatile Korg Electronic Pitch Pipe

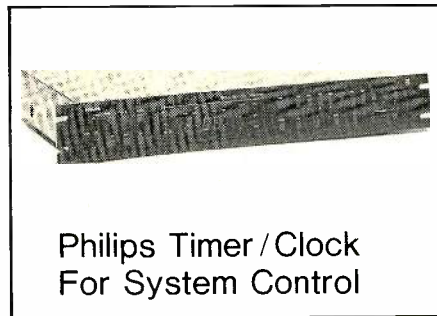
□ The Korg WT-12 imported by Unicord generates five octaves of chromatic pitch references and will show instrument mistuning over a seven-octave range. A tuning meter displays pitch variation in hertz and cents (hundredths of a semitone). The 1-pound unit has a built-in microphone and speaker, meter light, calibration controls, and direct inputs and outputs. It measures 8 x 1 1/2 x 4 inches and comes with an earphone, a.c. adaptor, four AA batteries, and a carrying case. Price: \$210. Unicord, Dept. SR, 89 Frost Street, Westbury, N.Y. 11590.

Circle 125 on reader service card



Decoder for Dolby-B Broadcasts and Tapes From Integrex

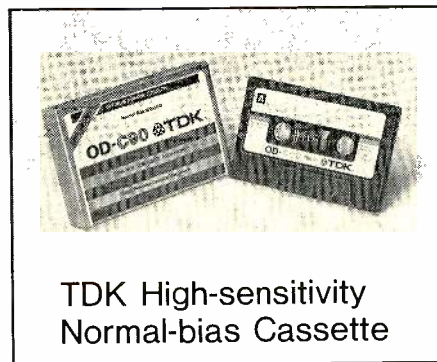
□ The Integrex Model DFM unit will decode Dolby-B FM broadcasts and prerecorded tapes. The self-powered device accommodates tuners with either standard 75-mi-



Philips Timer / Clock For System Control

□ The Philips AH 080 microprocessor unit controls components, turning them on and off at preset times. The available programming options include automatic switching over a seven-day period, repeated switching at the same time every day, switching after selected time intervals, and 1-hour switch-on at any chosen time. A separately controlled output has a 5-ampere capacity for switching high-power amplifiers. Up to twenty different on-off switching operations can be stored in the AH 080's memory, which is protected from power-line failures by a 9-volt battery. Programming is aided by a four-digit LED clock. The rack-mountable unit measures 19 x 2 3/4 x 13 3/4 inches. Price: \$209.95.

Circle 127 on reader service card



TDK High-sensitivity Normal-bias Cassette

□ TDK's Optimum Dynamic (OD) tape is a ferric-based formulation that takes "normal" ferric bias settings and equalization (120 microseconds). The OD tape's maximum output

(Continued on page 16)

Technics

If you want a frequency response with more dynamic range and more high-end extension, you'll want nothing less than metal tape. And for about \$380 there are many metal tape decks to choose from. But if you want more than just metal, you'll want what most other comparably priced decks don't give you. The 3 heads and double Dolby† in Technics RS-M63.

The RS-M63's 3-head configuration lets you do what most other comparably priced decks don't: Monitor your recordings while you're recording. And, since our separate HPF record and playback heads are precisely gapped and enclosed in a single housing, you won't get azimuth error. What you will get is an extremely wide frequency response with CrO₂ tape and an incredibly high response with metal tape.

Wow and Flutter	Frequency Response	S/N
0.05% WRMS	20Hz-20kHz(metal) 20Hz-18kHz(FeCr/CrO ₂) 20Hz-17kHz(normal)	67 dB Dolb [†] in

As good as that sounds, double Dolby will make it sound even better, because there are separate Dolby circuits for recording and playback. So you can monitor your tapes with the full effects of Dolby Noise Reduction. That means a lot when it comes to accurate recordings.

So do the RS-M63's fluorescent (FL) bar graph meters. Especially when it comes to dynamic range. Because with their device attack time of just 5-millionths of a second, they can respond to the most sudden musical transients.

To help you make the most of all this performance, the RS-M63 has a fine bias adjustment, so you can get the most out of all kinds of tape. And you'll spend more time listening to music and less time searching for it, because we include the memory features you need. Like auto-rewind, auto play and rewind auto play.

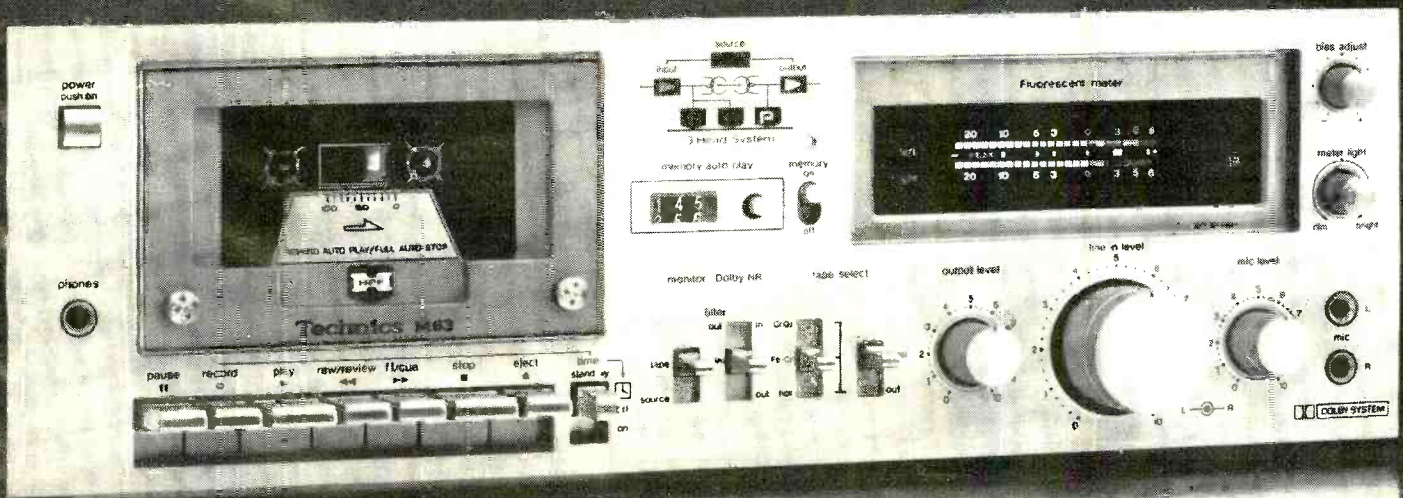
Technics RS-M63. The only deck to consider when you consider what you get for the price.

*Recommended price for Technics RS-M63, but actual price will be set by dealers.

†Dolby is a trademark of Dolby Laboratories.

CIRCLE NO. 54 ON READER SERVICE CARD

Before you spend \$380* on a metal tape deck, make sure it has 3 heads and double Dolby.



Interface: C

Series II It sounds like music.

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

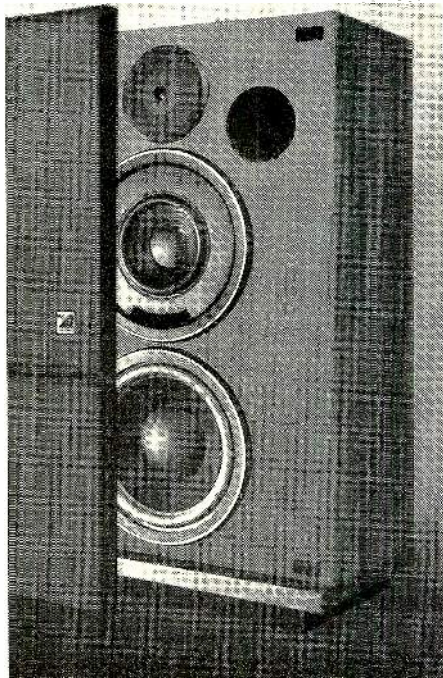
The SuperDome™ tweeter, an E-V exclusive, and the VMR™ vented midrange driver, the first to apply optimally vented design to mid frequencies, ensure your music is reproduced without the coloration normally found in other high-efficiency drivers. An honest 30 Hz low end totally eliminates the need for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

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



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level is said to be 3 to 4 dB higher than that of standard normal-bias tapes in the mid and low frequencies and 5 to 6 dB higher at the high end. Coercivity has been set at 370 oersteds and remanence at 1,550 gauss. The cassettes come in C-60 and C-90 lengths. Prices: C-60, \$4.70; C-90, \$6.60.

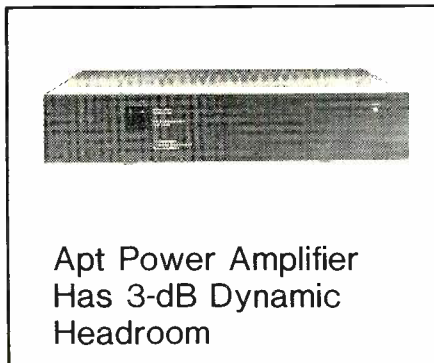
Circle 128 on reader service card



Soundcraftsmen
Preamp Includes
Ten-band Equalizer

□ Soundcraftsmen's SP4001 signal-processing preamplifier incorporates a ten-octave stereo equalizer along with two external processing loops, a switchable infrasonic filter, and front-panel switching for two tape decks, two individually amplified phono inputs, a tuner, and an auxiliary source. The switching allows tape-to-tape dubbing and monitoring with or without signal processing. The phono preamps have a rated signal-to-noise ratio of 97 dB, a frequency-response accuracy of ± 0.5 dB, and less than 0.01 per cent total harmonic distortion (THD). The equalizer and line-amplifier sections have a signal-to-noise ratio (S/N) of 105 dB (A-weighted), THD of less than 0.007 per cent, and frequency response of ± 0.25 dB from 20 to 20,000 Hz. The unit comes with a walnut case and a test record. Price: \$549.

Circle 129 on reader service card

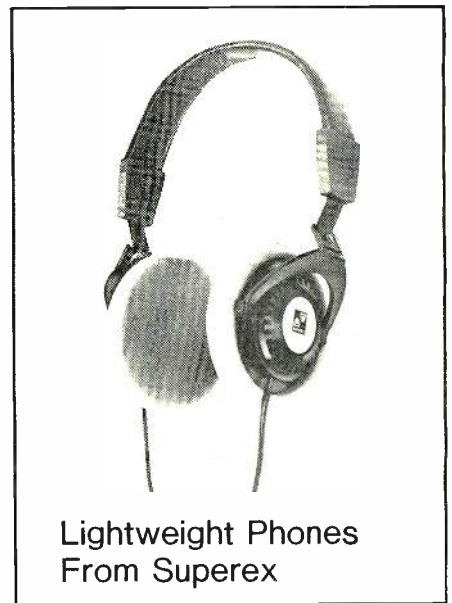


Apt Power Amplifier
Has 3-dB Dynamic
Headroom

□ The Apt 1 power amplifier includes an adjustable power supply which preserves the

unit's 3-dB dynamic headroom into 4- to 8-ohm loads while enabling it to drive any loudspeaker loads from 2 to 10 ohms. New driver and output-stage designs are said to offer low steady-state and dynamic distortion performance without conventional protection circuitry. The amp's average continuous-power rating is 100 watts per channel into either 4 or 8 ohms at less than 0.03 per cent total harmonic distortion (THD). Frequency response is within ± 0.5 dB from 10 Hz to 30 kHz, and transient intermodulation distortion (TIM) is less than 0.006 per cent. The slew factor is greater than 10 and output noise is less than 80 dB below 1 watt. Other features include relay muting/short-circuit protection, LED overload indicators, direct-coupled design, and a rack-mount option. The Apt 1 measures $3\frac{1}{8}$ x 17 x $10\frac{1}{4}$ inches and weighs 22 pounds. Price: \$641 in the East; \$656 in the West.

Circle 130 on reader service card



Lightweight Phones
From Superex

□ The driver elements in the Superex TRL-88 incorporate Mylar-film diaphragms in conjunction with high-energy samarium-cobalt magnets. This combination is said to extend high-frequency response. Extended low-frequency response has been achieved by slotting of the headphone shell and by decreasing the thickness of the foam between the ear and the diaphragm. Overall response is rated at 18 to 20,000 Hz, with distortion under 0.5 per cent at 400 Hz with a 100-dB sound-pressure-level output. Impedance is a nominal 100 ohms and weight is $4\frac{1}{4}$ ounces. Price: \$49.95. Superex Electronics Corp., Dept. SR, 151 Ludlow Street, Yonkers, N.Y. 10705.

Circle 131 on reader service card

(Continued on page 18)

STEREO BREAKTHROUGH



Bone FoneTM

A new concept in sound technology may revolutionize the way we listen to stereo music.

The Bone Fone surrounds your entire body with a sound almost impossible to imagine.

You're standing in an open field. Suddenly there's music from all directions. Your bones resonate as if you're listening to beautiful stereo music in front of a powerful home stereo system.

But there's no radio in sight and nobody else hears what you do. It's an unbelievable experience that will send chills through your body when you first hear it.

AROUND YOU

And nobody will know you're listening to a stereo. The entire sound system is actually draped around you like a scarf and can be hidden under a jacket or worn over clothes.

The Bone Fone is actually an AM/FM stereo multiplex radio with its speakers located near your ears. When you tune in a stereo station, you get the same stereo separation you'd expect from earphones but without the bulk and inconvenience. And you also get something you won't expect.

INNER EAR BONES

The sound will also resonate through your bones—all the way to the sensitive bones of your inner ear. It's like feeling the vibrations of a powerful stereo system or sitting in the first row listening to a symphony orchestra—it's breathtaking.

Now you can listen to beautiful stereo music everywhere—not just in your living room. Imagine walking your dog to beautiful stereo music or roller skating to a strong disco beat.

You can ride a bicycle or motorcycle, jog and even do headstands—the Bone Fone stays on no matter what the activity. The Bone Fone stereo brings beautiful music and convenience to every indoor and outdoor activity without disturbing those around you and without anything covering your ear.

SKI INVENTION

The Bone Fone was invented by an engineer who liked to ski. Every time he took a long lift ride, he noticed other skiers carrying transistor radios and cassette players and wondered if there was a better way to keep your hands free and listen to stereo music.

So he invented the Bone Fone stereo. When he put it around his neck, he couldn't believe his ears. He was not only hearing the music

and stereo separation, but the sound was resonating through his bones giving him the sensation of standing in front of a powerful stereo system.

AWARDED PATENT

The inventor took his invention to a friend who also tried it on. His friend couldn't believe what he heard and at first thought someone was playing a trick on him.

The inventor was awarded a patent for his idea and brought it to JS&A. We took the idea and our engineers produced a very sensitive yet powerful AM/FM multiplex radio called the Bone Fone.

The entire battery-powered system is self-contained and uses four integrated circuits and two ceramic filters for high station selectivity. The Bone Fone weighs only 15 ounces, so when worn over your shoulders, the weight is not even a factor.

BUILT TO TAKE IT

The Bone Fone was built to take abuse. The large 70 millimeter speakers are protected in flexible water and crush resistant cases. The case that houses the radio itself is made of rugged ABS plastic with a special reinforcement system. We knew that the Bone Fone stereo may take a great deal of abuse so we designed it with the quality needed to withstand the worst treatment.

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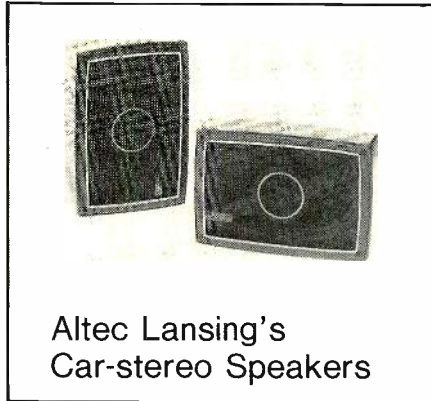
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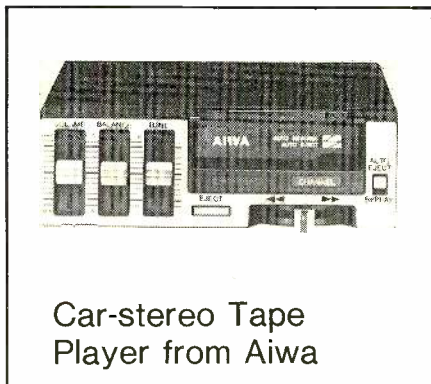
latest audio equipment and accessories



Altec Lansing's Car-stereo Speakers

□ Featured in Altec's new line of loudspeakers for use in automobiles is the 6x9-4A Duplex. The unit incorporates a high-frequency driver mounted with a 6 x 9-inch wide-range speaker, making up the two-way "Duplex" configuration for which Altec has been known for many years. Utilizing a shallow magnet structure, the entire assembly, supplied in its own small cabinet, can be mounted in a car door with only 1 3/4 inch of inside space required; it can also be mounted under or on top of a rear package shelf. The full depth of the unit is 3 1/2 inches. Maximum acceptable amplifier power is 40 watts, with a frequency response of 80 to 18,000 Hz ±6 dB and a sensitivity of 1 watt for a 95-dB sound-pressure level at 1 meter. Nominal impedance is 4 ohms, with crossover at 5,000 Hz. The unit measures 6 1/2 x 9 3/8 x 3 1/2 inches. Price: \$159.95 per pair.

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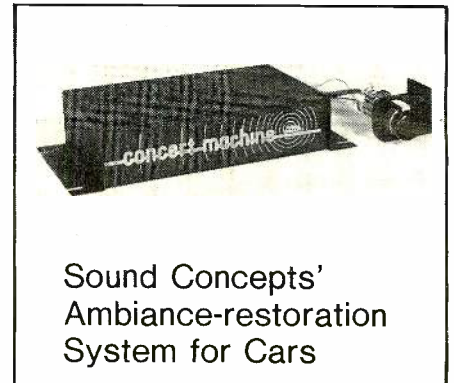


Car-stereo Tape Player from Aiwa

□ Model CT-1060Y, one of three such players being introduced by Aiwa, is an under-dash unit featuring automatic or manual cassette reverse at the end of its run. The fast-forward and rewind controls lock while in use, and in these modes the cassette automatically ejects when the end is reached. Turning off the car's ignition will also cause a cassette to be ejected. With a power output of 7 watts per channel, the CT-1060Y operates from a

12-volt d.c. power source, negative ground. Wow and flutter are rated at 0.28 per cent (wrms), and signal-to-noise ratio is 45 db. Frequency response is 40 to 10,000 Hz, and fast-forward and rewind times are both 100 seconds for a C-60 tape. The unit weighs just over 2 pounds, and it measures 5 1/2 x 1 3/4 x 6 5/8 inches. Price: \$120.

Circle 133 on reader service card



Sound Concepts' Ambiance-restoration System for Cars

□ The Sound Concepts "Concert Machine," available either in the self-contained Model AD1060 or in the remote-control Model AD1070 (shown), is claimed to help an existing car-stereo system re-create the sound of the hall where source material was recorded. The units are connected between the existing system's rear-speaker outputs and the rear speakers (which must be added if not present already). Power and grounding connections are required, but no additional electronics since the amplifiers are built in. The signal output to the rear speakers is electronically delayed and bass-boosting frequency-compensation is supplied. Output power is 7 watts per channel into 3.2 ohms, and the delay time is variable from 10 to 70 milliseconds.

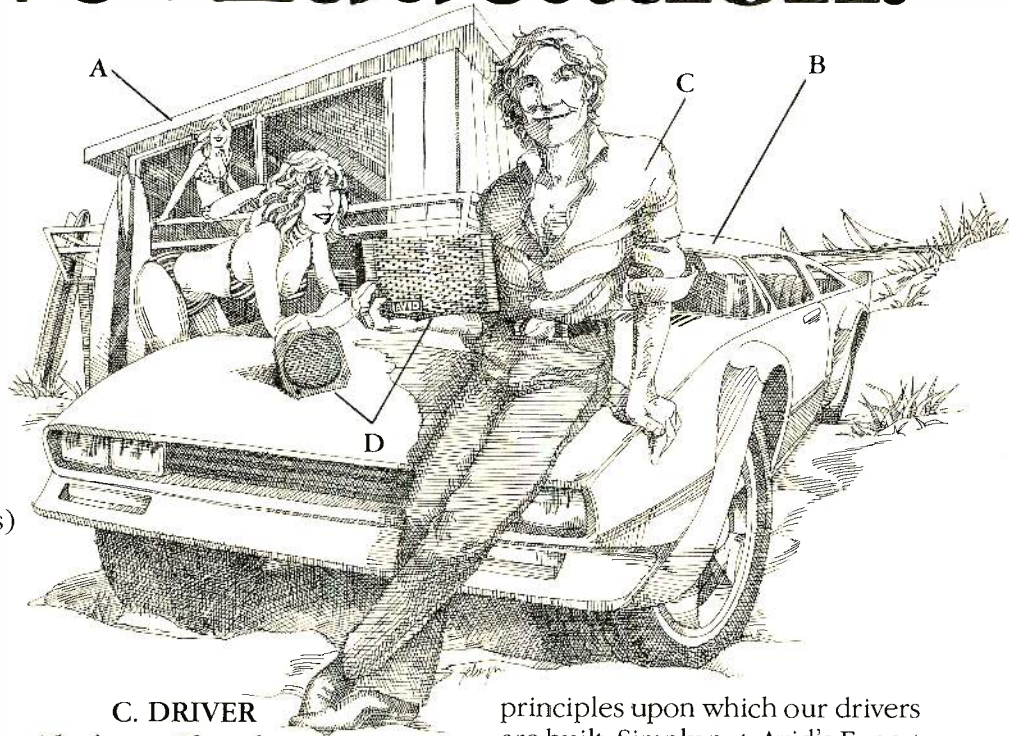
The AD1070 must be used with the 1060RC remote-control unit, a single-shaft, three-function device supplied with mounting bracket. If desired, the 1060RC may also be used with the self-contained AD1060, though it is not required. Dimensions: AD1060, 2 1/4 x 7 x 7 1/2 inches; AD1070, 1 7/8 x 4 3/8 x 7 3/8 inches. Prices: AD1060, \$300; AD1070 (including remote-control unit), \$290; 1060RC separately, \$40. Sound Concepts, Dept. SR, P.O. Box 135, Brookline, Mass. 02146.

Circle 134 on reader service card

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

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

A Short Course In Driver Education.



A. HOUSE

Students, pay attention. A house is a big, square box with many surfaces which absorb and reflect sound, in varying degrees. Designing speaker systems to perform superbly in such an environment (which Avid already does) requires experience and technical expertise. But when one starts out to design speaker systems for cars, not all experience gained with A. is transferrable to B.

B. CAR

A car is also a box, sort of. But with a different shape, and different reflective and absorptive surfaces. And, a lot of problems not associated with houses. Cars move. And make noise. And vibrate. Thus, one who attacks the car-speaker-design problem as if it were a house-speaker-design problem is making a big mistake. Listen to what is on the road these days and discover how many expensive mistakes are being made in the name of car stereo.

C. DRIVER

That's you. The educated listener whose ears are accustomed to the finer sounds in life, found most often only in your living room. Wouldn't it be nice if you could get such great sound in your car? Well, now you can.

D. EXPERT DRIVERS

That's what we make. Speakers designed for your car, not adapted from your living room. We've spent many years (not to mention lots of money) perfecting the research which has provided the

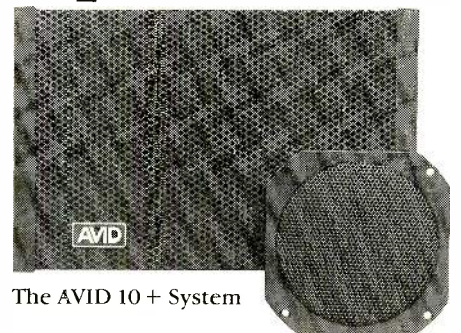
principles upon which our drivers are built. Simply put, Avid's Expert Drivers perform better than others because we've isolated the obstacles to good car speaker performance and designed around them.

This is your homework. But the real test is waiting for you at your Avid dealer. See him soon, or send for your free Drivers Manual. Write Avid Corporation, 10 Tripps Lane, East Providence, RI 02914.

Study Sheet

Expert Driver	Type	Components	Impedance	Continuous Power Capacity	Frequency Response	Suggested Price
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Model 1	Full range rear deck	6"x9" woofer 1" whizzer cone	4 ohms	50 w	70 Hz to 16kHz ± 5 dB	\$60/pair
Model 5	2-way rear deck	4½" woofer 1" soft dome tweeter	4 ohms	75 w	60 Hz to 20kHz ± 5 dB	\$175/pair
Model 10	2-way rear deck	6" woofer 1" soft dome tweeter	4 ohms	100 w	50 Hz to 20kHz ± 3 dB	\$225/pair
10+ System	Combines the Model 10 and RD-5 for the ultimate 4-driver system		4 ohms	100 w	50 Hz to 20kHz ± 3 dB	\$275/system

AVID Expert Drivers™



The AVID 10 + System

By David
Ranada



Larry Klein

GOOD NEWS: DIGITAL-RECORDING STANDARDS

THE recording industry's first digital-audio standards have just been promulgated, and with them come a host of questions concerning the future of audio. The standards come from the Electronic Industries Association of Japan (EIAJ) and are contained in their technical file STC-007: "Consumer Use, PCM Encoder-Decoder." Reading this rule for digital-audio/videotape-recorder adaptors leads one to conclude that much of what has been assumed or taken for granted in the audio world may change radically with the coming of digital-audio/video technology. Such a change could involve some of the most fundamental assumptions about stereophonic high-fidelity music reproduction.

There is room for only a very short summary of the standard here—perhaps just as well, for "full disclosure" would bring up a really big question: Are you, as an audiophile and music lover, willing to make the considerable investment in time, trouble, and brainpower it would take to learn what digital-audio technology is all about? Not only is the VTR-adaptor standard full of highly technical detail couched in highly technical language and advanced mathematics, but it presupposes that its readers already have some knowledge of sampling theory, error detection and correction codes, digital electronics, digital signal processing, and even television theory!

To start, all EIAJ-compatible digital-audio adaptors for consumer use (consumer in this case being high-end audiophiles or semiprofessional recordists) will utilize fourteen-bit linear encoding. This means that the recorder will assign one of 16,384 (2 to the 14th power) binary numbers to the instantaneous "height" of an infinitesimal "slice" of the input waveform for recording. [The situation is even more complex than this because several announced adaptors actually do not use fourteen-bit encoding. Instead, twelve-bit "floating-point" converters are used with their outputs digitally converted to fourteen-bit linear for recording. This is owing to the present state of semiconductor technology: fourteen-bit linear converters are difficult and expensive to make. (Technically speaking, we are already, as you can see, in very deep.)]

What does this numerology mean to the ear? It means that any recording made with these adaptors, if it is made without any pre-

emphasis and de-emphasis, will have a signal-to-noise ratio limited by the mathematics of the technique to 86.04931 dB, give or take a few millionths of a decibel. The physical limitations of real electronics systems degrade this figure somewhat, so the few adaptors announced so far have signal-to-noise ratios of about 85 dB.

The second major specification of the new standard is a sampling rate of 44.056 ± 0.005 kHz. This is the rate at which the audio signal is "A/D converted" from a continuously varying voltage (Analog) to a binary number (Digital) during recording, and vice versa during playback. The mathematics of sampling theory are inexorable: you cannot record a signal correctly if its frequency exceeds one-half the sampling rate; in this case, the limit is 22.028 kHz. Again, the physics of real-world electronics lowers the theoretical highest frequency in practice to around 20 kHz, traditionally the highest audible frequency handled by hi-fi hardware.



Note that the signal-to-noise and frequency performance of a digital-audio system has built-in limitations established by the mathematics and the physics of the choices made in its design. This is a fundamental change in the traditional concept of continuing progress in audio performance. There can be no "progress" in any standardized digital-audio system beyond that permitted by the mathematics of sampling theory and the physics of electronic devices.

Do not, however, misinterpret this caveat as a plea for no standardization, a call for a

marketplace free-for-all. Far from it. The EIAJ standard is a welcome (and necessary) first step in the eagerly awaited arrival of domestic digital-audio systems which will ultimately deliver us from the problems of analog disc and tape imperfections. There will have to be a standard for any domestic system too, and the EIAJ standard is a good start, one with more than enough dynamic range and frequency response to satisfy everyone but... well, lunatic-fringe audio perfectionists.

The ultimate standard for domestic all-digital audio discs is still undefined, but it will probably be based, for economic as much as for technical reasons, on STC-007. If the present very high costs of digital audio are to drop as the prices for digital watches and pocket calculators did, their electronic innards must be condensed into large-scale integrated circuits. It is already technologically feasible for the digital portions of a digital-audio adaptor to be embodied in one or two integrated circuits. All it would take to make it a reality is the promise of a large market, and that will come only with a digital-disc standard. The experience gained with the EIAJ standard adaptors will speed the development and adoption of an even more refined set of guidelines for the future.

The third important set of parameters fixed by STC-007 is for the digital signal's error-correction, -concealment, and -detection formats. The standard defines the construction and application of a three-level error-detection/correction technique that enables a digital tape recorder to automatically detect and correct errors in the coded information as it comes off the tape.

The standard does not define, however, exactly what an adaptor is to do when it detects an uncorrectable error. Thus, the necessary electronic processing of error concealment is a field left wide open for different designs—with possible audible differences resulting from them. However, error concealment should be needed rather infrequently, so the sonic attributes of any good concealment system might have little to do with the sonic quality of the recording system as a whole. But if competition in the digital field gets stiff, and if there is no standard for error concealment, this is one of the areas which will undoubtedly come up for discussion, in the process lending itself to the excesses of advertising hype.

It appears to me that, with digital recording and playback, the entire reproduction chain—except for microphones, loudspeakers, listening rooms, and ear-brain systems—can be effectively removed from the list of major sonic-reality-distorting devices. In our pursuit of the Holy Grail of perfect "you-are-there" reproduction, emphasis must now fall on the three transducers in the recording chain: the ears (1) that interpret the signals picked up by the microphones (2) and played through the loudspeakers (3). Psychoacoustic research may reveal that such fidelity is impossible to achieve employing conventional microphone techniques and only two conventional loudspeakers in a conventional room. But adding extra channels and/or complex psychoacoustic signal processing will be relatively easy with digital technology, provided the digital standard used allows for them. Quad (or quint, sex, or sept) may not be dead after all. □

Who invented magnetic recording tape?

Hint: It's the same brand that developed the only normal bias tape specifically designed for today's high quality decks. The result is a premium tape that can be driven harder and can deliver more headroom than any other normal bias tape.



Who makes the reference standard for all high bias tapes?

Hint: It's the same brand that makes a pure chromium dioxide tape with the best signal-to-noise ratio and lowest inherent tape noise of any high bias cassette tape. It provides the closest performance to metal tape available today at half the price.



Who makes Europe's largest selling tape?

Hint: It's the same brand that developed a premium double coated cassette tape. With a ferric oxide layer for superior low and mid frequency reproduction, and a pure chrome layer for the best highs. This combination is ideally suited for both car and home stereo systems.



This is who.

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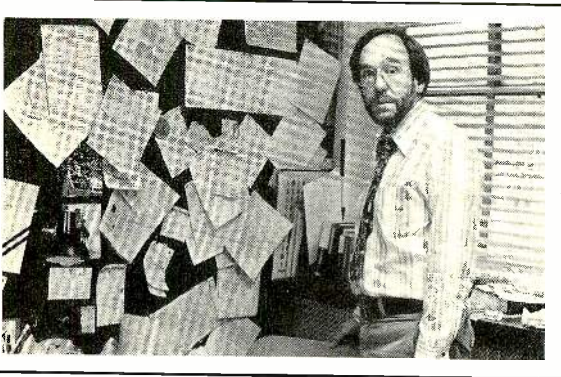


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CIRCLE NO. 22 ON READER SERVICE CARD

Audio Q. and A.

By Larry Klein



Fluttering Meters

Q. I own a 60-watt-per-channel receiver and a new turntable. I had the receiver serviced for a "bad ground" when one channel lost all sound. Just prior to the loss of sound, the power meters on the receiver fluttered wildly past 5 watts output. Now, again, I have the problem of fluttering meters, and I can't put the volume past 5 watts since the fluttering also comes through the speakers. This happens only on phono; the FM plays fine at any volume. Can you tell me the cause of this flutter on my meters? Is the "bad ground" going to put one side out again?

JON WARNER
Janesville, Wis.

A. Long-time readers of this column probably recognized the described symptoms long before they finished Mr. Warner's letter. The problem is *not* in the amplifier; the fluttering meters are simply indicating a classic case of acoustic feedback, which in the past I've called the most unrecognized or misdiagnosed problem in hi-fi.

Acoustic feedback occurs when, for some reason, the sound output of your speakers gets back to your turntable and produces enough vibration that the phono stylus picks it up along with the record-groove modulation. The resulting signal is sent to the speakers, then fed back to the turntable, which sends it to the speakers, which feed it back to the turntable, which . . . etc. The only cure for acoustic feedback is to break the feedback linkage at some point in the chain.

Since you have a new record player, it would probably be wise as a first step to check your turntable to see if the "transit screws" have been properly removed or loosened. (They are installed by the manufacturer to keep the turntable assembly from jiggling itself to pieces during shipment. The turntable's instruction sheet will tell you where they are.)

Isolate the turntable from the speakers as well as you can by making sure that they are not sitting on the same shelf or piece of furniture. Try relocating the turntable and/or the speakers physically, since you may have an odd or unpredictable coupling path in the room.

And finally, there are perhaps a half-dozen

acoustic isolators on the market that work with varying degrees of success for different types and sources of acoustic feedback. All of them are worth trying, but given their various operating principles and frequencies, which may not be addressed to your particular problem, it would be best to locate a dealer who will let you try out whatever isolators he stocks with a money-back arrangement if they don't cure your problem.

Voice-coil Impedance

Q. I understand from the Hirsch-Houck Labs test reports that the rated impedance of a speaker system varies considerably from the manufacturer's specified 4 or 8 ohms. What is the reason for this?

CHARLES HENDERSON
Salt Lake City, Utah

A. Since the voice coil of a speaker, like any coil of wire, has inductance, it also has a higher impedance at higher frequencies. The impedance of a speaker system therefore starts to rise (unless the manufacturer has taken steps to prevent it) somewhere around 400 Hz.

There is another sharp rise (perhaps five times the nominal impedance) at the woofer's in-box resonant frequency. The reason for this rise is rather complicated. When a voice coil is driven by an incoming signal it simultaneously generates a "back voltage." This back voltage appears because the voice coil moving in the magnetic gap acts as an electrical generator. Since the back voltage opposes the incoming signal, the electrical effect is identical to that caused by an increase in voice-coil impedance. Well-designed speaker systems deal with this low-frequency resonance by damping or other means so as to provide the designer-preferred compromise between the flattest and most extended bass response for a given enclosure.

Bass Processing

Q. In searching for a signal-processing device for my system, I've become quite confused over a number of matters. I own very good equipment, but the acoustic character of my listening room causes the

mid- and low-bass frequencies to be reduced substantially. I have considered several alternatives to compensate for this: (a) a dynamic-range expander, which many audio dealers say would remedy the problem better than an equalizer; (b) a graphic equalizer; or (c) a parametric equalizer, which, according to a different source, is much more flexible than the graphic kind.

With each of these processors receiving "equal billing" from audio dealers in my area, my questions are: What are the advantages of a range expander over an equalizer, and vice versa? And if parametric equalizers really are more flexible, why aren't they more popular than the better-known graphic equalizer?

DOUGLAS GORDON
Ringgold, Ga.

A. Offhand, I can't imagine what acoustic situation would cause a loss in both mid- and low-bass frequencies in a normal listening room, but for the sake of the discussion I'll accept your description of the problem. Before you start investigating additional compensating electronics, however, I would suggest that you try moving your speakers closer to the room walls and corners. This may restore some of the missing bass. You might also try adjusting your amplifier's bass control(s) (and the turnover frequencies, if possible) to determine if some amplifier bass boost might not alleviate the problem.

Perhaps I'm "reading in," but I sense a bit of an effort to rationalize the purchase of additional equipment! (I recognize the symptoms from personal experience; I suffer from the same progressive, accumulative disease when it comes to photographic equipment.) Be that as it may, here are my best answers:

A dynamic-range expander is intended to do just that: the low-level (not low-frequency) signals are further reduced in volume, and the loud signals are raised in volume. The net result is an expansion of the dynamic range (the range from the softest to the loudest sounds) and usually some improvement in the signal-to-noise ratio. Since dynamic-range expanders do not affect the frequency balance of the signal (except perhaps psychoacoustically through the Fletcher-Munson effect), I can't see how one could restore any missing bass.

Either a parametric or a graphic equalizer would provide the desired bass boost, with these differences in operation: The *parametric* type is designed to home in on and apply a boost or cut to a specific and fairly narrow band of frequencies. For that reason, a parametric equalizer is difficult to use to best advantage without some sort of spectrum analyzer to display its acoustic effect. The *graphic* equalizer, on the other hand, provides boost or cut in (usually) octave-wide bands. If the room problems consisted of narrow standing-wave peaks or frequency "suck-outs," then a parametric device would be preferred. From the description of the complaint, however, I suspect that a graphic equalizer—perhaps even an inexpensive five-band unit—might provide a fix. *Note:* It is important when using an equalizer to make sure that the associated equipment is adequate. The amplifier must have sufficient power to provide the boost without clipping (every 3 dB of boost doubles the required amplifier power), and the speakers must be rugged enough to take it.

Mind Reader.



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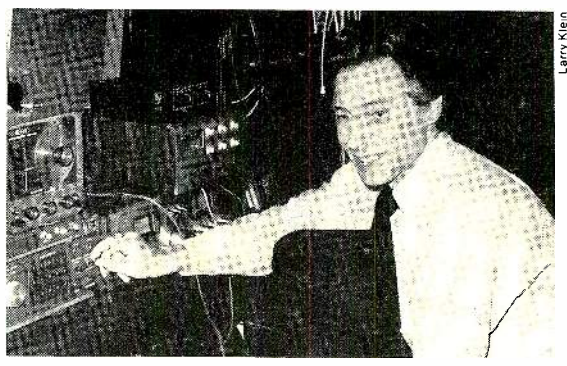
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CIRCLE NO. 33 ON READER SERVICE CARD

Audio Basics

By Robert
Greene



CASSETTE VERSUS OPEN-REEL

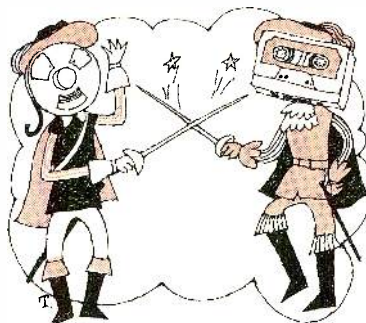
It was just about six and a half years ago that we noted in these pages that the cassette recorder had reached its tenth "birthday," "anniversary," or whatever it is that cassette recorders celebrate. In the article one could detect a certain degree of amazement that the once lowly cassette had advanced as far as it had at that time. It has, of course, come even farther since then, in the process somewhat simplifying, for most people, the question of whether to go open-reel or cassette when choosing a tape deck. Still, the question does remain for some, so let's look into it a bit.

In a way, the present recording capability of the cassette format is considerably more of a technological wonder than that of open-reel. The latter was originally designed to meet professional requirements, so the ingredients for relatively easy qualitative improvement were always present—the tape was wide enough and it could be moved fast enough right from the beginning. The cassette, however, was originally designed by Philips for use in small, portable "Sound Cameras," machines intended largely for dictation. For such a purpose, lo-fi sound reproduction served quite nicely; there was little or no thought back around 1963, when the first such units appeared, that they would ever be used to record music or play other roles requiring high fidelity. With tape only about 1/4 inch wide moving at only 1 7/8 inches per second, this was perfectly reasonable. Given the technology of the time, there simply wasn't enough tape surface to achieve a decent dynamic range or signal-to-noise ratio, and the low tape speed (the patent holder, Philips, would permit no higher one) just did not leave room for high-frequency response. Also, editing a tape sealed up in a little plastic box was at least chancy, if not totally out of the question.

The format did have one big factor in its favor, though: it was far more convenient than open-reel—no threading the tape through a maze of heads, tape guides, pinch-rollers, and capstans. And cassettes are even easier to play back than discs! Convenience has great appeal to the buying public, of course, and manufacturers, seeing a huge potential market, began to make previously unthought-of improvements both in the decks

and in the cassette tape itself. Several open-reel recorder manufacturers, Bell & Howell and Ampex among them, tried to counter the convenience of the cassette by bringing out various types of self-threading open-reel units—the tape fed itself through to the take-up reel with little or no help. This wasn't enough, however, for cassette machines kept right on coming, constantly being improved along the way.

When we wrote on the subject back in 1973, there was still a wide selection of open-reel machines at all prices; cassette machines were becoming more common, but the true audiophile would almost always opt for open-reel because of its higher quality of reproduction. Today's best cassette equipment, despite the design constraints still imposed by Phil-



ips, is suitable for all but the most demanding live-music recording. The cassette format has now virtually taken over the home audio market, and the open-reel machine, with very few exceptions, is now at least a semi-professional piece of equipment and consequently large and expensive. To give an idea of the relative number of units available, STEREO REVIEW's latest *Stereo Directory & Buying Guide* has seventeen pages of cassette-machine listings; open-reel machines take up only four.

For most of us, the first thing to consider in buying a piece of audio equipment—or anything else for that matter—is price. The situation today is that open-reel recording is no longer a game for those with a limited budget. There are still a couple of perfectly re-

spectable units available in the \$400 to \$500 range, and a few more from \$700 to \$800. The bulk of them, however, are \$1,000 or more (sometimes *lots* more). These are large, complicated, frequently multichannel machines that are intended for use by the really serious recordist.

Among cassette decks, on the other hand, there is something for nearly every home audio system and for all but the slimmest pocketbook. Prices start around \$150; for this you won't get the highest fidelity, but you can get a simple machine that's adequate for use in a modest, entry-level system. At the other extreme, you can pay \$1,600 or so for a top-flight cassette machine that, with the new pure-metal tapes, will provide performance almost equal to that of the best open-reel units, along with a great many features an individual user may or may not need. For those mainly concerned with dubbing phonograph records (all but the very best audiophile discs) or from FM radio, there is any number of units between these two price extremes that will serve very nicely, depending on the quality of your associated equipment (no use paying for performance you won't hear) and the specific features you desire. A deck costing between \$500 and \$600 should be adequate for most home systems.

Two limitations of the cassette format may also affect a decision. The first is playing time. The maximum available on one side of a cassette is 1 1/2 hours (the C-180; the C-120 has an hour on each side), whereas a 10 1/2-inch reel of 1-mil tape has more than 3 hours at 3 3/4 ips. Further, some deck manufacturers advise against using extra-long cassettes in their units, and 45 minutes per side (a C-90 tape) is the practical uninterrupted maximum for many machines.

The other limitation on the cassette format is still performance. For most home applications cassettes are more than adequate, but if you require the ultimate in performance, you might not be satisfied. The accompanying table shows sample specifications for the best-selling cassette and open-reel machines. It should be borne in mind that specs for tape machines are not stated in as uniform a manner as those for amplifiers. The "wrms" wow-and-flutter measurement used for cassette

Cassette Deck (1 1/2 ips)

Frequency response (± 3 dB)	25-17,000 Hz
Wow and flutter (wrms)	0.04 per cent
Signal-to-noise ratio (no noise reduction)	59 dB or more

Open-reel Deck (7 1/2 ips)

Frequency response	30-24,000 Hz
Wow and flutter	0.05 per cent
Signal-to-noise ratio	58 dB

units almost always gives a 30 to 50 per cent "better" reading than the "DIN peak-weighted" measurement used for professional and, frequently but not always, home open-reel equipment. Moreover, the frequency-response figures for cassette units reflect lower signal levels than those for open-reel, the narrower and slower cassette tape being incapable of handling the higher levels without saturation and overload problems. Nonetheless, who, sixteen years ago, would even have thought such figures possible? □



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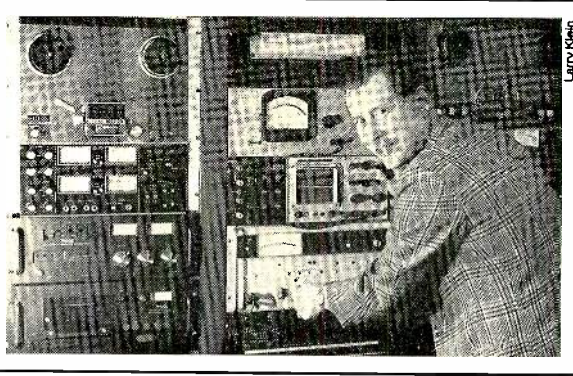
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Tape Talk

By Craig Stark



PRERECORDED CASSETTES FOR THE CRITICAL

PROBABLY the most frequent reader complaint that comes across my desk is about the poor quality of prerecorded cassettes. Excessive tape hiss, poor frequency response at both ends of the audio spectrum, and audible distortion play in three-part disharmony in my daily mail, with comments about physical malperformance (jamming, dropouts, mistracking, and the like) adding the bass. One reader asked the pointed question, "Why can I make better cassette copies of discs on my home deck than I can buy in a commercially recorded version? Is my equipment better than theirs?"

Why *are* so many prerecorded cassettes so poor? To say that economics provides most of the answer is not to say that the major producing companies are involved in a conspiracy of greed at cassette buyers' expense. The fact of the matter is that, even with the most efficient duplicating techniques, it costs, by industry estimates, about one and one-half times as much to produce a prerecorded cassette as it does to produce an LP.

High-speed duplication methods, while necessary for large-scale operations (the only kind that major companies can afford to engage in), impose distinct quality limitations. To see why, let's start with a studio's master tape. It's usually a 1/4-inch, two-track, 15- or 30-inch-per-second, Dolby-A-encoded mix-down of an original recording that normally may contain anywhere from four to twenty-four tracks (sometimes more). The studio master tape, then, is at least a second-generation or (sometimes) a third-generation tape. From this master the studio makes a 1:1 stereo, Dolby-A copy, an "intermaster," which it sends to the record-producing plant or to the tape duplicator.

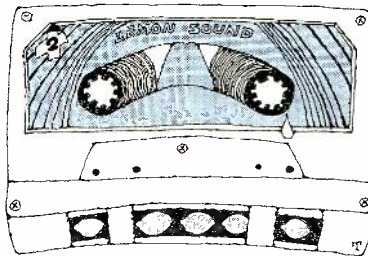
The record-production plant can use the 15- or 30-ips intermaster directly to feed the cutter that produces the master lacquer disc. Following the usual electroplating and stamper-making process, both sides of an LP can be stamped out simultaneously in a matter of a few seconds. The tape-duplicating plant, on the other hand, has a further step to go through, for its high-speed duplicator master station uses a tape that has both stereo sides recorded on it and is meant to be played at a speed of 7 1/2 or 3 3/4 ips.

A high-speed duplicator master machine

operates at great speeds—normally 240 or 120 inches per second. The duplicator "running master" (tape up to 1 inch wide) is usually not even fed onto reels, but is made into an enormous "endless loop," stored in a "bin," and supplied with cueing tones (for later splicing into "C-0s"—empty cassette shells), so the whole operation can be made nonstop except for the time necessary to replenish the copying slaves with large-diameter "pancakes" (flangeless reels) of cassette-width tape. The slave recorders, of which there can be a great many, are naturally equipped with four-channel heads so they can record both stereo sides at one pass.

Now to a little simple arithmetic. If the duplicating master machine runs at 240 ips playing a tape recorded at 7 1/2 ips, the speed ratio is 32:1, meaning that a 30-minute cassette will be run off in a little under a minute. Because the cassette tape speed of 1 7/8 ips is one-fourth the speed of the duplicator running master (7 1/2 ips), the slave recorders run at 240 ips ÷ 4, or 60 ips. By using 3 3/4-ips running masters it is actually possible for duplicators today to achieve a 64:1 copying-speed ratio!

This kind of efficiency, however, has a sonic cost. A 15-ips copy of a master tape is bound to be better than a 7 1/2-ips copy, which is bound to be better than a 3 3/4-ips copy. Ma-



major duplicator manufacturers claim a frequency response of ± 3 dB to 14 kHz, but even in today's mid-price cassette-deck market that's not a very impressive specification. This, plus the inevitable gradual sound-quality deterioration at all points along the line, is largely what makes us all ask, "Isn't there a better way?"

There *is*, but (a) it is applicable only to

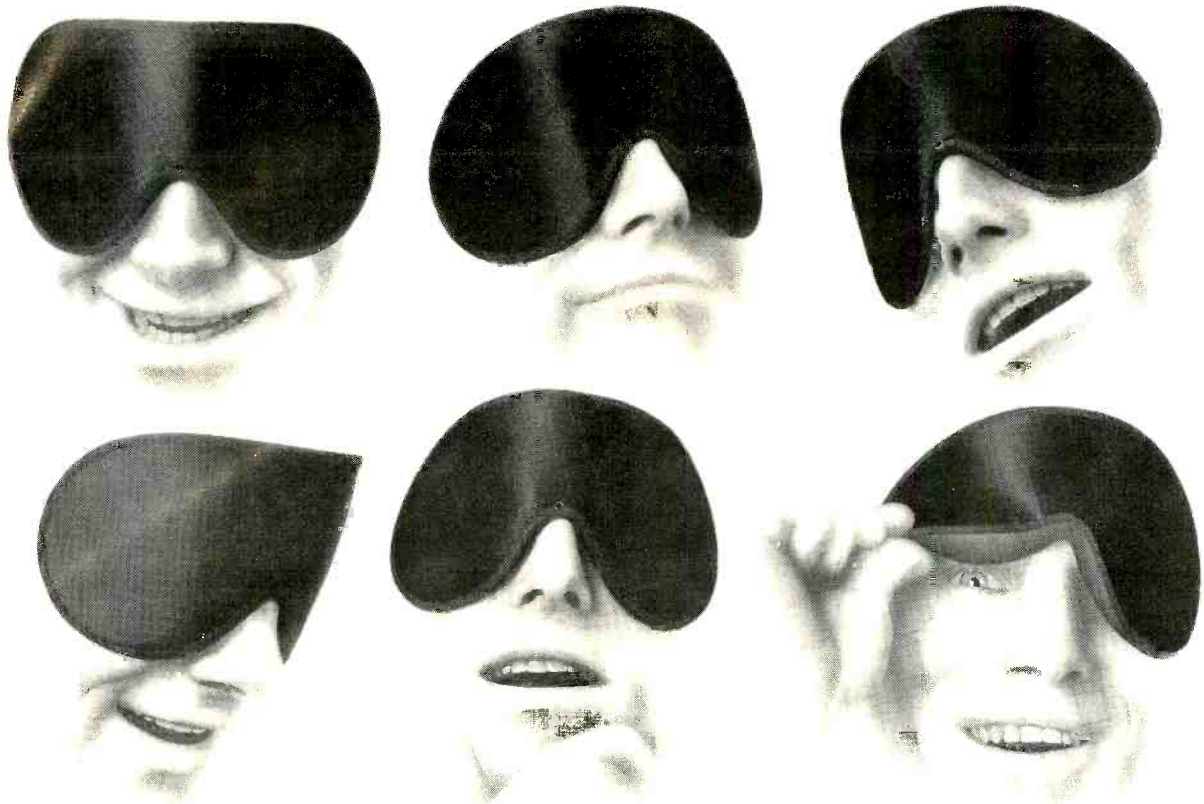
small-scale operations, and (b) it costs a lot more. The first really top-quality prerecorded cassettes I heard in this country were produced (most of them some years ago) by Advent Corp., using DuPont's Crolyn tape and only a 4:1 duplicating-speed ratio. While Advent no longer is putting out new releases, a number of their "CR-70" cassettes are still available at bargain rates (\$6.95-\$9.95) by writing their Customer Relations department at 195 Albany Street, Cambridge, Massachusetts 02139.

InSync Laboratories, a licensee of Connoisseur Society, which has long been known for "demo quality" discs, now gets my vote as *the* purveyor of commercially recorded cassettes for the critical. I recently visited their New York headquarters (2211 Broadway, New York, New York 10024) and talked with Alan Silver, president of Connoisseur Society (his brother Steven heads InSync), and what I heard changed a luncheon interview into an afternoon's listening treat.

It was Connoisseur Society, it seems, that originally supplied the master tapes (which they get from Pathé in France or EMI in England, or—best of all, to my ears—record themselves) to Advent. The first of their own InSync cassettes were made using 15-ips masters and an 8:1 duplicating ratio. Enthusiastically reviewed by STEREO REVIEW critic Richard Freed (July 1979), they still didn't satisfy Alan Silver, who decided that the only way to do the job really properly is to duplicate master tapes *in real time*: a 1:1 ratio. What met my eyes as I entered InSync/Connoisseur, therefore, was a wall of some twenty (!) Nakamichi 582 recorders, Studer A-80 and A-67 mastering recorders, an Ampex 350 recorder, professional Dolby-A and Dolby-B processors, a bank of test equipment, and a superb monitoring system with a switchbox that permits direct A/B audible comparison between the master tape and the recorded output from each and every individual duplicating deck. The Nakamichis measure out flat (within a decibel or two) from 10 Hz to beyond 20 kHz, and, of course, the same is true of the Studers.

According to Silver, it isn't only the real-time duplicating on top-quality equipment that produces the "silken" quality of the InSync cassettes. Also important is the selection of the tape (normally, commercial duplicators pay about 3.5¢ to 6¢ per 100 feet of "duplicator stock"; Connoisseur pays about 21.5¢ per 100 feet of DuPont's improved Crolyn-II) and of the C-0s (for which Connoisseur pays about twice the mass-market rate). The net result is an undeniably better sound quality, but it has a price: \$14.95 for the regular cassettes and \$24.95 for the numbered "Gold Label" series cassettes, which, like the duplicating masters Connoisseur uses, are made directly from the studio master tape they receive.

So it all comes down (surprise!) to a matter of dollars and cents. A commercially recorded cassette *can* be as good as or better than a disc, since the mechanical problems involved between the master tape and final disc pressing are eliminated. It does, however, mean additional expenditures in time, care, and money on the part of the manufacturer, all of which results in a higher selling price. So, as with most things, you get only as good as you pay for. □



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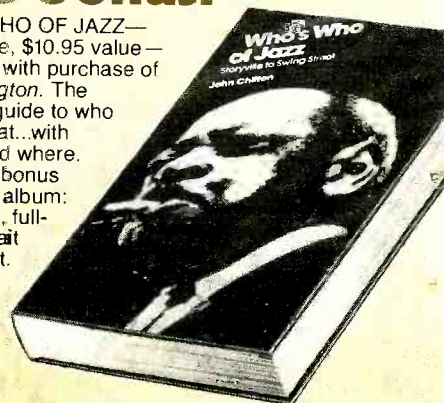
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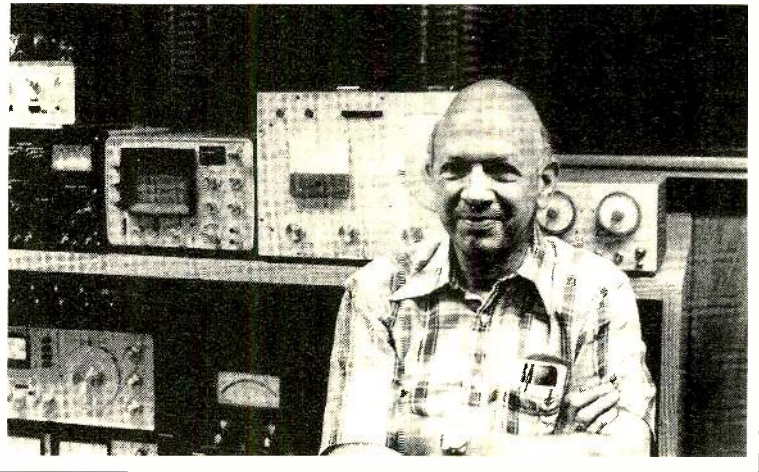
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Technical Talk

By Julian D. Hirsch



• Metal Tape •

DURING the past few years, the audio press has carried many predictions that metal tape will revolutionize cassette recording, bringing it nearly to the performance level of open-reel recording. First we were told of the development of the tape itself by several tape manufacturers, and a couple of high-end equipment manufacturers almost simultaneously demonstrated to the trade and press their corresponding developments in recorder hardware. Today, every cassette-deck manufacturer has at least one model in his line that is claimed to be "metal compatible," and metal-tape cassettes from several tape manufacturers are in dealer stocks.

Can we really expect metal to usurp the place of CrO₂ and its equivalents as the top-quality cassette recording medium? The basic cassette-recording problem—and the one metal tape is addressed to—is energy storage: how to record high-level, high-frequency program material in a very thin layer of some magnetic material operating under far from favorable conditions. This requires a high-frequency boost (equalization) during recording to compensate for the inherent tape and head losses. But the magnetic material used for the tape coating tends to saturate magnetically when this equalization is applied to programs that already have a strong high-frequency content.

The effect of this problem can be seen clearly in the record-playback frequency response of a cassette deck (it happens with open-reel machines too, but to a much lesser degree). The rated frequency response of a cassette recorder is specified at a -20-dB recording level. If it is measured at 0 dB, the result is a considerable high-frequency rolloff in the measured playback output. Chromium-dioxide tapes were the first major step to-

ward solving that problem, since they are much less susceptible to saturation than ferric-oxide tapes (the cobalt-treated ferric tapes known as "chrome equivalents" have very similar properties). At first only a few machines had the higher bias and 70-microsecond playback equalization required for optimum performance with chrome tapes, but these soon became standard features on all decks, even in the lower price brackets.

Some years ago, tape manufacturers found that a tape coating made of finely powdered iron (instead of an oxide of iron or chromium) was capable of yielding better high-frequency performance than any existing tape formulations. I first heard a very impressive demonstration of the potential of iron-coated tape at the Philips Research Laboratories in Holland almost six years ago.

But some rather serious problems had to be overcome before metal-coated tapes could become a commercial reality. The microscopically fine iron powder was extremely prone to oxidation and other problems when exposed to the atmosphere. Techniques were eventually developed for manufacturing and handling the iron powder safely and coating a plastic tape base with it. There were—and probably still are—other problems to overcome, but a couple of years ago it became possible to manufacture cassettes with pure iron as the tape coating.

Like some of the other evolutionary advances in tape technology, the development of metal tape could not reach fruition without a simultaneous program by the recorder manufacturers. Metal tape is much more difficult to record on and to erase than either ferric-oxide- or chromium-dioxide-coated tapes. The very high bias and erase currents required were beyond the capabilities of any ex-

isting cassette recorders, and the problem could not be solved merely by redesigning the bias/erase oscillators for higher output. New head designs that could handle the higher currents were also required. Furthermore, many of the specific design details could not be settled until the magnetic properties of the tape had been standardized (the metal tape developed by 3M in this country was not identical to the tapes from various Japanese manufacturers, nor were even all of the latter alike). This had some of the characteristics of the classic "chicken or egg" problem, except that both had to appear simultaneously.

LAST year, the major Japanese tape manufacturers agreed on standard magnetic properties for their metal tapes, and almost simultaneously a large number of "metal-compatible" cassette decks appeared, first in Japan and shortly afterward in this country. The first machines to claim metal compatibility were relatively expensive, but since then a claimed metal capability has filtered down into the lowest price range (we have just seen an announcement for a \$130 machine able to record on metal tape!).

The growing number of both tapes and recorders with the ability to exploit the unique properties of metal coatings might lead one to conclude that cassette recording was about to be liberated from its second-class status in the tape-recording hierarchy. Sad to say, my early experiences (and those of others) with these machines and tapes cause me to question whether the cassette millenium has really arrived just yet.

Most of the new "metal-ready" tape decks are two-head machines using combination record/playback heads. That type of head is a compromise that works surprisingly well for

Tested This Month

Phase Linear 7000 Series Two Cassette Deck • JVC QL-F6 Turntable
Sennheiser HD-420 Headphones • Ohm M/N Speaker System
Sony STR-V55 AM/FM Stereo Receiver

ferric-oxide and even for chromium-dioxide tapes, but the inherently different gap designs and dimensions required for the best possible recording and playback prevent a two-head deck from fully matching the performance of an optimally designed three-head machine. The key word is *fully*, since it is possible for a good two-head machine to match the frequency response, *or* the signal-to-noise ratio, *or* the distortion of a three-head machine, but no single two-head machine could ever be the equal of a three-head recorder in *all* categories of performance.

On most recorders, the overall audible performance of metal tapes is not very different from that of a good chrome tape or its equivalent. The high-frequency headroom *is* better with metal, but it is not nearly as far beyond previous tapes *audibly* as we have been led to expect. The distortion and noise with metal are often no better than with other tapes, and they can even be slightly worse. Although these machines are "compatible" in the sense that they will make perfectly good-sounding

recordings on metal tape (and any machine with 70-microsecond playback equalization will play back a metal tape properly), they will rarely come close to matching the performance of a reasonably good open-reel recorder in respect to high-frequency headroom or frequency response.

It is hard for me to understand why anyone would pay the premium price of a metal cassette to obtain results that are no better than can be had using any good tape selling for less than half its price. It makes no sense, economically speaking. The high initial prices of metal tapes from all manufacturers reflect the years of research and development that went into their creation, and no doubt they reflect the problems of getting a satisfactory yield in the early stages of production as well. There are signs of some prices coming down, but it seems likely that metal tape will always cost at least twice as much as other tapes.

If one has a good three-head cassette recorder designed to extract full performance from metal tape, and if it is to be used for live

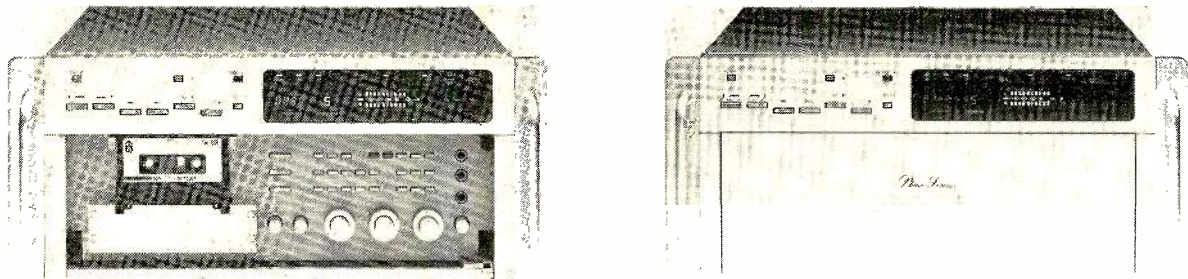
recording, the added investment in the metal tape is certainly justified. At its best, it can come close to matching a good open-reel recorder in overall quality. If most of one's recording is dubbing from ordinary records or FM broadcasts, however, metal tape has little or no advantage over a good chrome (or equivalent) tape, even in a good machine.

Using metal tape in a *low-cost* metal-ready recorder seems to me to be a waste of money. Instead of regularly spending \$8 to \$12 or more for a metal cassette to be used in a \$150 recorder, one would be better advised to spend more for the recorder and use a good grade of chrome-equivalent tape. The cost would be less and the results as good.

THERE remains, of course, the question of whether metal may not come into its own as the tape inside some future tiny full-fidelity microcassette deck. It *could* make of the microcassette format another legitimate hi-fi software/hardware medium—but that is a breakthrough for another day. □

Equipment Test Reports

By Hirsch-Houck Laboratories



Phase Linear 7000 Series Two Cassette Deck

PHASE LINEAR components have long enjoyed a reputation for excellent performance and technical innovation, and their Model 7000 Series Two cassette deck maintains this tradition. Impressive both in its size and in its microprocessor-controlled features, the 7000 Series Two provides a pushbutton (there are thirty-seven of them!) for nearly every conceivable function; yet, despite this apparent complexity, it remains basically an easy machine to operate.

The 7000 Series Two is a three-head, "metal-ready" front-loader. Its dual-capstan drive system isolates the tape during its passage across the tape heads, minimizing wow and flutter and the modulation-noise effects that might arise from longitudinal vibrations in the tape. The capstan system is driven by a d.c. servomotor whose speed is locked to the precise reference frequency provided by a quartz-crystal oscillator. The crystal control

may be overridden in the playback mode, if desired, by a pitch control with a ± 6 per cent range. A separate d.c. motor drives the reel hubs. All transport modes are solenoid-controlled via light-touch pushbuttons and a solid-state logic system.

The record and playback heads are separate, permitting their gap widths to be optimized for their different functions and making it possible to monitor the actual recorded signal a split second after it is put on the tape. The record and playback heads employ a wear-resistant uniaxial ferrite material and are so arranged that both will fit within the cassette opening originally intended for a single record/playback head. This eliminates the need for constant readjustment of the record-head azimuth (required by some three-head cassette decks because of the slight tape skewing within different cassette shells). The erase head uses a double-gap ferrite construc-

tion to provide the necessary erasing flux for the new metal-alloy tapes.

The lower section of the front panel of the 7000 Series Two, containing the cassette well and most of the controls, is concealed by a metal panel that tilts forward at a touch and slides underneath the deck. When closed, this makes for an attractive, uncluttered appearance, matching the other Phase Linear Series II components. The upper-left-hand portion of the panel contains the transport pushbuttons (REWIND, FAST FORWARD, STOP, PLAY, RECORD, and PAUSE), each of which has its own LED indicator. Also in this section are pushbuttons for power on-off, tape-counter reset, record mute (which, when depressed during taping, inserts silent "spaces" between selections), and a MicroScan button whose function will be explained below.

On the upper right side of the panel are a

(Continued on page 38)

Super D: the next step beyond Dolby and dbx?



Tape noise reduction for the home has been through two "generations" of development.

But now there's a third generation: Sanyo's new Super D. And to hear its awesome performance is to realize just how good cassette recordings can finally sound with all the noise gone.

Noise Elimination plus Headroom Extension — without audible side effects.

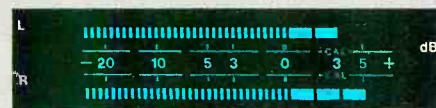
Super D's 2:1 "decilinear" compression during recording and expansion on playback double the dynamic range of any reasonably good tape deck. So background noise simply disappears, and transient peaks are prevented from

satürating the tape, causing distortion and high frequency loss. And the decilinear operation means there are no critical reference levels, and no recalibration every time you change tape types.

Other systems offer 2:1 compression/expansion, but Super D has the crucial advantage of band-splitting — with entirely separate processing of low and high frequencies (see diagram). So the attack and release times of the compressors can be optimized for each band — eliminating "pumping," drastically reducing odd-order bass distortion, and making the system far less susceptible to small tape dropouts.

Superb Specs... Easy to Operate.

The PLUS N55 Super D processor patches in between your existing cassette or reel-to-reel tape deck and your preamp or receiver. It's equipped with wide-range, instant-responding



fluorescent peak meters, and a 1 kHz oscillator for calibrating it to your tape deck.

After initial setup, you can ignore the record and output level controls on your deck, as well as the old-fashioned VU meters it's probably equipped with. The PLUS N55 encodes and decodes simultaneously, so with a 3-head deck you can monitor the beautifully clean playback while you're recording.

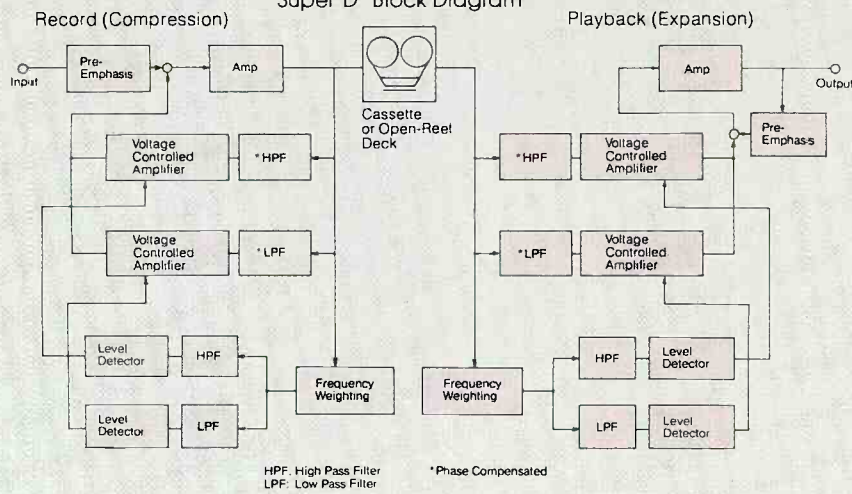
And it will be clean! The PLUS N55 has a dynamic range of 100dB, and typical harmonic distortion of 0.08% (1 kHz, nominal operating level). It's ideal for professional use, with supplied rackmount handles and low impedance outputs that let it drive long signal lines.

So before you invest in any noise reduction system, listen to the affordably priced Sanyo Super D.

And step up to total silence.

PLUS SERIES™
SANYO

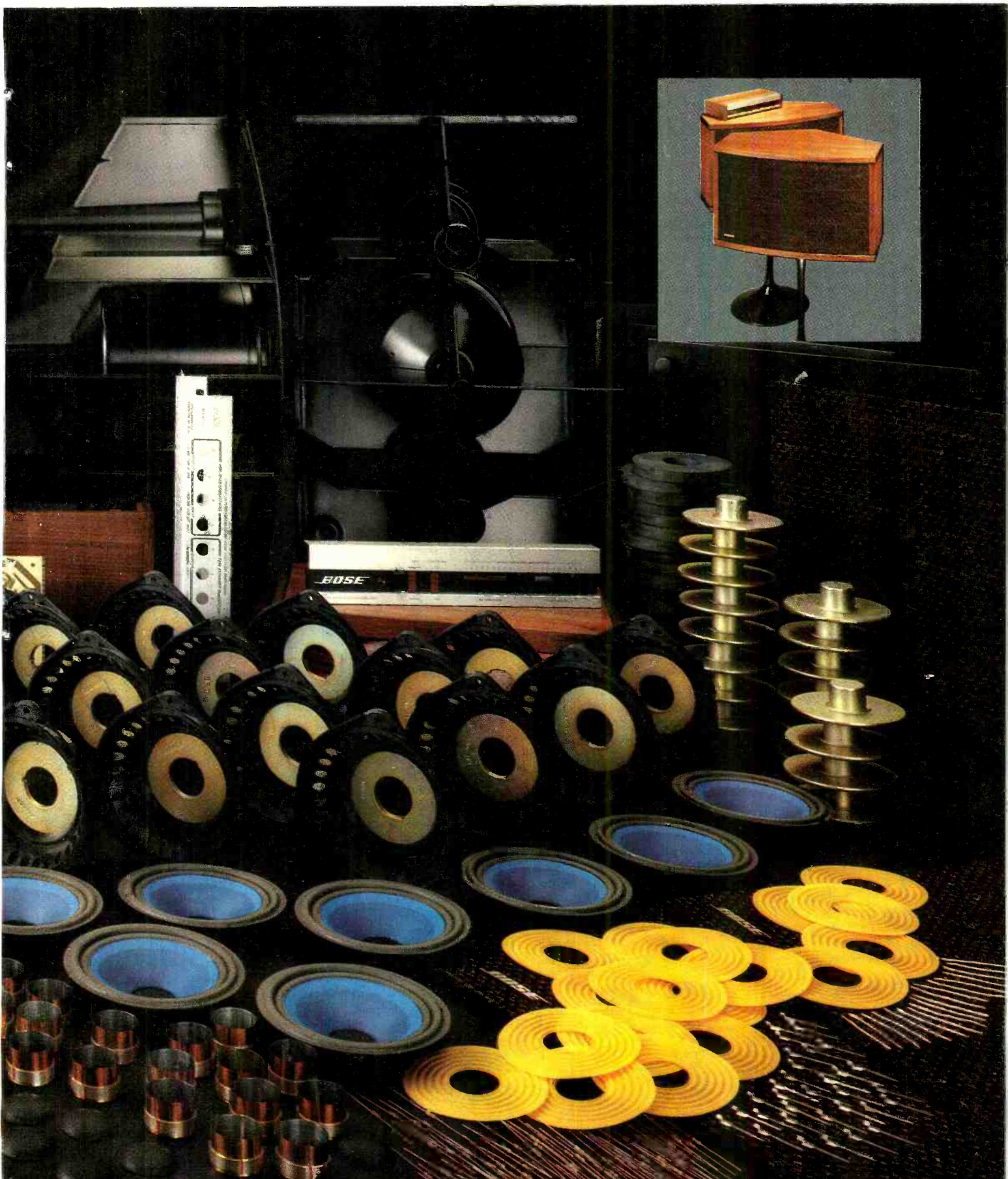
"Super D" Block Diagram



**We submit: the Bose® 901®
Direct/Reflecting® Speaker
System provides more
value in concepts, materials
and performance than any
other speaker system.**



Covered by patent rights issued and/or pending.
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BOSE
Better sound through research.

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four-digit electronic tape counter, an electronic memory number indicator (used in conjunction with the MicroScan process), and a fluorescent level indicator. In a row above these three sets of indicators are ten more LED status indicators. Three of these (bias, level, and equalization) show the operation of the MicroScan system; four more are used to show the type of tape for which the deck is set (metal, standard, CrO₂, or FeCr). The remaining three light up when the Dolby noise-reduction system is switched in, when the memory/repeat feature is selected, and when the batteries that maintain the microprocessor memories need replacement after a year or so.

ing it either peak-reading, peak-hold, or average-reading ballistic characteristics and selecting either bright or dim illumination levels. The third row (five pushbuttons) controls the memory and repeat functions, which can be set to stop or play again either from the end of the tape or from a point within it where the counter has been zeroed.

This leaves only the MicroScan buttons to be described. As most audiophiles are aware, tapes differ not only by basic type but also, to some degree, from brand to brand within the same general type. Optimum tape/recorder performance can be achieved, therefore, only if these minor differences—in bias level, record equalization, and tape sensitivity (level)

outlet (rated at 300 watts). The Phase Linear 7000 Series Two measures 18⁷/₈ inches wide, 8⁵/₈ inches high, and 16³/₄ inches deep; it weighs slightly more than 40 pounds. Suggested retail price: \$1,350.

● **Laboratory Measurements.** We measured the playback frequency response of the Model 7000 with a TDK AC-337 test tape, using the known difference between the 70- and 120-microsecond equalization curves to check both equalizations. The slight downward slope, which did not reach the 3-dB point at the 12,500-Hz limit of the test tape, may reflect the use of a different test tape in making the factory adjustments of the deck, for it did not show up in any of the overall record-playback curves.

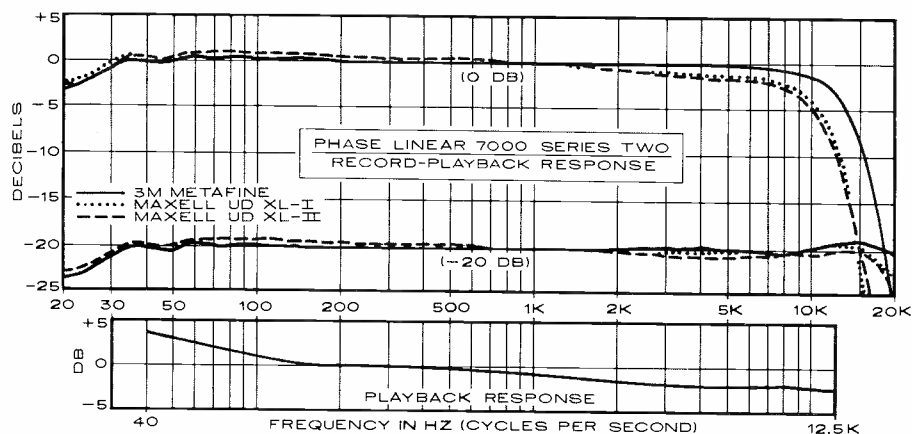
For the overall frequency response, distortion, and signal-to-noise measurements we used samples of Maxell UD XL-II (CrO₂ position) and of 3M Metafine (metal position) supplied by Phase Linear as the factory setup tapes. We also checked performance with TDK and Sony metal formulations and with BASF CrO₂, TDK SA, and Memorex Hi-Bias cassettes. Tests were also made with Maxell UD XL-I (ferric) and Sony FeCr (ferrichrome). Even without using the MicroScan processor, the 7000 Series Two seemed remarkably tolerant of differences between, for example, Ampex Grand Master, TDK OD and D, and Memorex MrX₂. But, aside from our measurements, we also put the machine through its paces as a consumer would. We used the MicroScan system when our ears told us (during monitoring) that it was clearly needed, and we used the standard factory settings when they were already very close to optimal. With this approach we were able to obtain consistent performance (up to the inherent limitations of each) from almost every tape we tested. Ferrichrome proved beyond the computer's power to resolve, but with ferric, CrO₂-type, and metal-alloy cassettes response measured consistently within ±1.5 dB from 30 to 18,000 Hz (20 kHz with metal).

The record-playback distortion with 3M Metafine, Maxell UD XL-II, Maxell UD XL-I, and Sony FeCr measured 0.55, 0.85, 0.5, and 1.1 per cent, respectively, and the 3 per cent reference distortion point used was not reached until the very high input levels of +7, +4.8, +7.5, and +6 dB. Unweighted signal-to-noise ratios (without benefit of Dolby noise reduction) measured 56, 52.6, 55, and 53.5 dB, respectively, and adding Dolby and the CCIR weighting curve improved the figures to 69, 65, 64.5, and 68 dB for the four tapes.

Wow and flutter was far below the residual level of our test tapes and therefore had to be measured by recording, rewinding, and playing back a generated 3,150-Hz test tone. Even so, on a weighted-rms basis, wow and flutter was only 0.03 per cent, increasing to between 0.04 and 0.05 per cent on the stricter, DIN peak-weighted measurement. Fast-forward and rewind times for a C-60 cassette were 77 and 75 seconds, respectively.

The fluorescent level display is calibrated from -30 to +8 dB, with +3 dB representing Dolby level when the playback control is at its detented, normal position. Indicated accuracy across the display scale was within ±1 dB down to the -20-dB level (where the spacing between segments becomes too broad

(Continued on page 40)



Opening up the lower portion of the front panel reveals both the cassette-loading area and all the other pushbuttons and controls. The heads are sufficiently exposed to facilitate routine cleaning and demagnetizing. A cassette is loaded, tape downward, simply by pressing it into place between the guides. When a cassette is inserted, any slack in the tape is automatically taken up. Behind the cassette is an illuminated panel, with markings toward each end, which shows the amount of tape on each reel and warns when only two or three minutes remain on a side.

Three large pushbuttons to the right of the cassette-mounting area switch in a 19-kHz multiplex filter (used when taping stereo FM), turn the Dolby system on and off, and switch the output of the deck to monitor either the incoming signal or playback from the tape. Beneath these are the pitch control (which has a center detent for normal-speed operation) and a four-position switch to select among the four tape types. To the right of these relatively small knobs are three large, dual-concentric controls for adjusting the level of the microphone and line inputs (which can be mixed) and for setting the tape-playback level. The output-level control is detented at its normal position, and it affects the fluorescent display as well as the headphone volume during playback. To the right of the output control is a manual center-detented bias adjustment.

In the central portion of this lower section of the 7000 Series Two are three horizontal rows of pushbuttons. The three in the top row set the deck up for operation via an external timer if desired. Below this is a group of five that control the fluorescent level display, giving

are taken into consideration and adjusted for. With the advent of reasonably priced microprocessor integrated circuits, it became possible to automate the adjustment process—and this is the precise purpose of the MicroScan feature of the Phase Linear 7000 Series Two. When a cassette is inserted and the MicroScan button is pressed, the deck begins the adjustment process. It automatically goes into record mode, and the "bias" LED indicator begins to flash as the microprocessor rapidly steps through sixty-four bias levels, selecting the optimum one for the specific tape. It next shifts to a similar trial of different level adjustments, and then through another series of tests to obtain the same response at 10,000 Hz as at 400 Hz. When all three parameters have been computer-optimized, all three LEDs remain lit and the deck automatically rewinds to the point on the tape where it began its testing operations. The entire process takes between 40 and 50 seconds, and, of course, the test tones are erased when you begin recording.

The remaining sets of pushbuttons in the lower section of the front panel can now be used to store the computer-determined data for a specific tape brand and type in any one of nine memories. At any later time, you have merely to press RECALL and the appropriate button in order to set up the proper recording bias, equalization, and sensitivity parameters instantly.

The batteries that maintain the memory when the 7000 is shut off are contained in a small compartment on the rear panel; it also provides a spare set of inputs and outputs for direct connection to another recorder. The rear panel also contains an unswitched a.c.

Synthesized Art.

Sony's new receiver creates higher-fi with a computerized tuner, a DC power amp and Pulse Power Supply.

Dream up a stereo test and compare our new STR-V55 receiver work of art with any other receiver you care to hear. Or view.

The measure of the receiver you invite into your home should feature unusually intelligent versatility. Ample power. Inaudible distortion. And an attractive design that speaks with a quality "finish."

Of course, we'd like to recommend our STR-V55 because we synthesized our newest technology to give you the incredible accuracy of frequency synthesized tuning, a versatile microcomputer and silent, uninterrupted power. The tuner section is so sophisticated that a highly stable quartz-crystal oscillator locks in AM and FM signals for brilliantly faithful reproduction of broadcast programming.



And the microcomputer gives you tuning options that simply don't exist anywhere else.

Memory scan is our latest exclusive tuning advance to span the bands automatically. Press a button and preset stations are automatically tuned in sequence for approximately 3.5 seconds each. Hands-off tuning lets you automatically monitor your favorite stations and simply pressing the appropriate station button tunes in your selection for continuous listening.

Choose auto tuning to capture stations with frequencies that you don't know for certain. A touch of a button precisely finds the next station encountered up and down the frequency band.

Manual tuning lets you approach known frequencies at high speed

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and then obtains the exact frequency in precise, discrete steps.

And preset tuning instantly recalls any of the eight stations that are stored in our new MNOS (metal nitride oxide semiconductor) memory that can't be accidentally erased.

Our beauty is not only designed for easy viewing, it's coordinated to be proudly displayed. Bright electro-fluorescent digits

display frequencies.

Bright green LEDs in a five-step array show signal strength. And red LEDs pinpoint your favorite stations at a glance.

Consider the power of 55 watts per channel that propels the intimacy of the original performance through Sony's advanced DC amp technology. And a high-gain low-noise phono amp in the preamp section enables you to even use an MC cartridge with your turntable to capture the subtleness of the softest, most delicate music.



It's also important to know that an efficient, compact Pulse Power Supply provides stable DC power even at peak levels. And highly responsive Hi-Fi power transistors artfully reproduce complex wave forms even at high frequencies and full output power.



STR-V55

Sound is so clear that quiet intervals are *quiet* even at the highest listening levels.

Sony's STR-V55 is more of a receiver because you demand to hear more of your music. Own our masterpiece.

SONY

to measure). Dolby level indicated 1 dB low when checked with a TDK AC-313 level tape, but, even so, overall record-playback response with the Dolby system switched in did not deviate more than the permissible +2 dB at a -20-dB input and was even closer than that at -30 dB. In the average-reading mode the display characteristics matched those of a standard VU meter very closely. The faster peak-reading mode will probably be more convenient for most users.

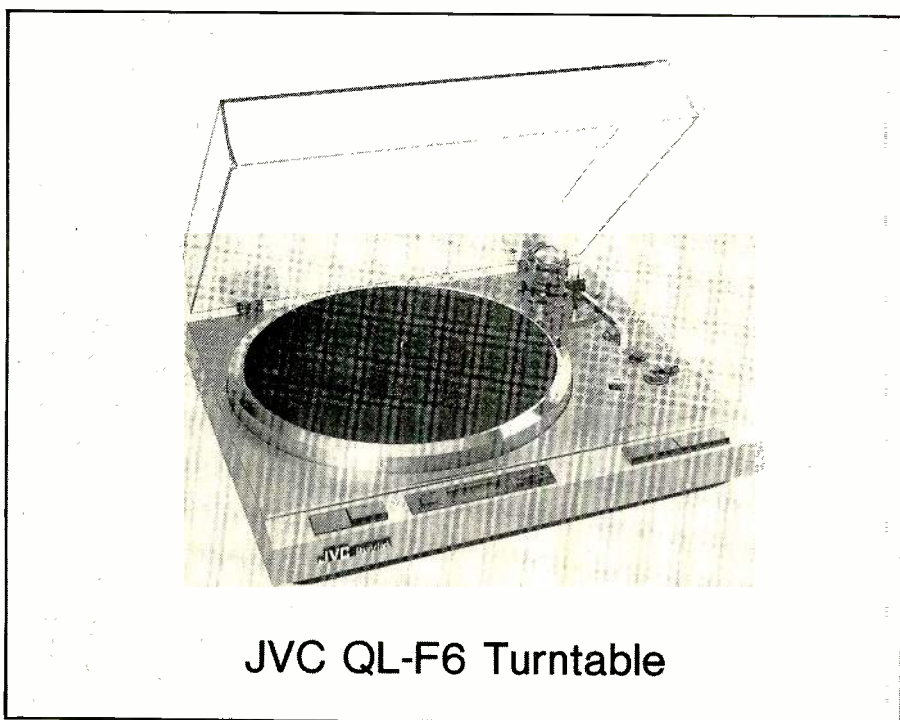
At the line-level inputs, a 68-mV signal produced a 0-dB meter indication, with the output measuring 460 mV. Microphone-in-

put sensitivity was 0.27 mV, with no overload evident until a 65-mV signal was applied. There was only 2.5 dB of additional microphone-input noise at maximum gain—one of the lowest figures we have measured. Headphone volume was more than adequate when checked with both 200-ohm and 600-ohm phones.

● **Comment.** In our listening tests the Phase Linear 7000 Series Two sounded just about as good as its measurements suggested—in a word, superb. Neither FM nor disc programs were audibly degraded by dubbing. And, with

metal-alloy tape, even FM interstation hiss was recorded without audible change until input levels were raised to a level of -6 dB. Tape handling was superb as well, and all of the features functioned precisely as described in the detailed and well-prepared manual. The price of the 7000 Series Two may put it beyond the reach of many who would appreciate its virtues, but those audiophiles who can afford the Phase Linear 7000 Series Two should count themselves fortunate in more than a purely financial sense.

Circle 140 on reader service card



JVC QL-F6 Turntable

THE JVC QL-F6 is a fully automatic single-play turntable whose speeds of 33 $\frac{1}{3}$ and 45 rpm are controlled by a quartz-crystal oscillator. A vernier adjustment for each speed is under the control of an adjustable voltage instead of the quartz-oscillator frequency. The novel tone arm of the QL-F6 features separately adjustable viscous damping of its horizontal and vertical pivots.

The cast-aluminum-alloy platter, together with its rubber mat, weighs about 4 pounds, 10 ounces. The speed of the QL-F6 is displayed on a small meter along the upper front edge of the base rather than by the more common stroboscope marks. This "control panel" section also contains the principal operating controls of the record player, the chief exception being the cueing control, which is located on the motorboard.

The meter is calibrated in per cent deviation from the nominal speed, with a "0"-center reading indicating exactly 33 $\frac{1}{3}$ or 45 rpm, depending on which of the two speed buttons

to its left has been pressed. In the normal quartz-locked mode, the meter is lit in green. When a button next to it is released, the speed control is transferred to a knurled wheel at the right of the meter, and the meter face is lit in soft white. Adjusting the vernier wheel shifts the turntable speed over a calibrated range of ± 6 per cent.

At the right of the control panel in front of the record player are two more flat buttons like those used for speed selection. A light touch on the START button turns the motor on and initiates the automatic operating cycle, causing the tone arm to move to the selected diameter and descend to the record surface. At the end of play it returns to the rest and the motor shuts off. Touching the REJECT button at any time initiates the shut-down cycle. The QL-F6 can also be operated manually, since lifting the arm from its rest starts the motor without activating the automatic arm-indexing mechanism.

On the motorboard, to the right of the tone

arm, are three knobs. The one marked REPEAT can be set to play a record automatically up to six times or to repeat it indefinitely. The RECORD SIZE knob sets the arm-indexing diameter for 7-, 10-, or 12-inch records. The arm-lift (cue) knob raises and lowers the arm with a gentle damped action.

The arm itself is perhaps the most unusual feature of the QL-F6, although it appears conventional at a casual glance. It is a J-shaped aluminum tube with a standard four-pin plug-in head shell. The counterweight rotates on the arm's threaded rear extension to balance it, and the tracking-force scale is calibrated from 0 to 3 grams at 0.1-gram intervals. The usual antiskating-compensation dial is on the motorboard next to the arm base and has separate scales for elliptical and conical styli.

On the top and side of the arm-pivot housing are two dials, each calibrated roughly from 0 to 3 grams. They are marked, respectively, HQ and VQ; the first letters refer to the horizontal and vertical pivots on which they act, and the "Q" to the degree of damping they apply to the pivots.

The arm is pivoted on gimbals, with each pivot immersed in a damping oil and sealed against leakage. The control knobs vary the pressure of the oil surrounding the bearings, and thus the degree to which the arm resonance is damped in each axis of movement. Since the user will not normally have the test equipment or the skills needed to fine-tune the damping for his specific cartridge, JVC has keyed the adjustments to the tracking force. A high force implies a low-compliance (stiff) stylus system, and thus a higher tone-arm/cartridge resonant frequency. Heavier damping would presumably be used in this case to reduce the effect of the resonance on the lower audio frequencies. A more compliant cartridge, which would track at a lower force, would have a lower resonant frequency and less damping would be needed to reduce its audible effects. But this is only our conjecture, since JVC simply recommends that the settings be made to match the tracking-force (and antiskating) dials.

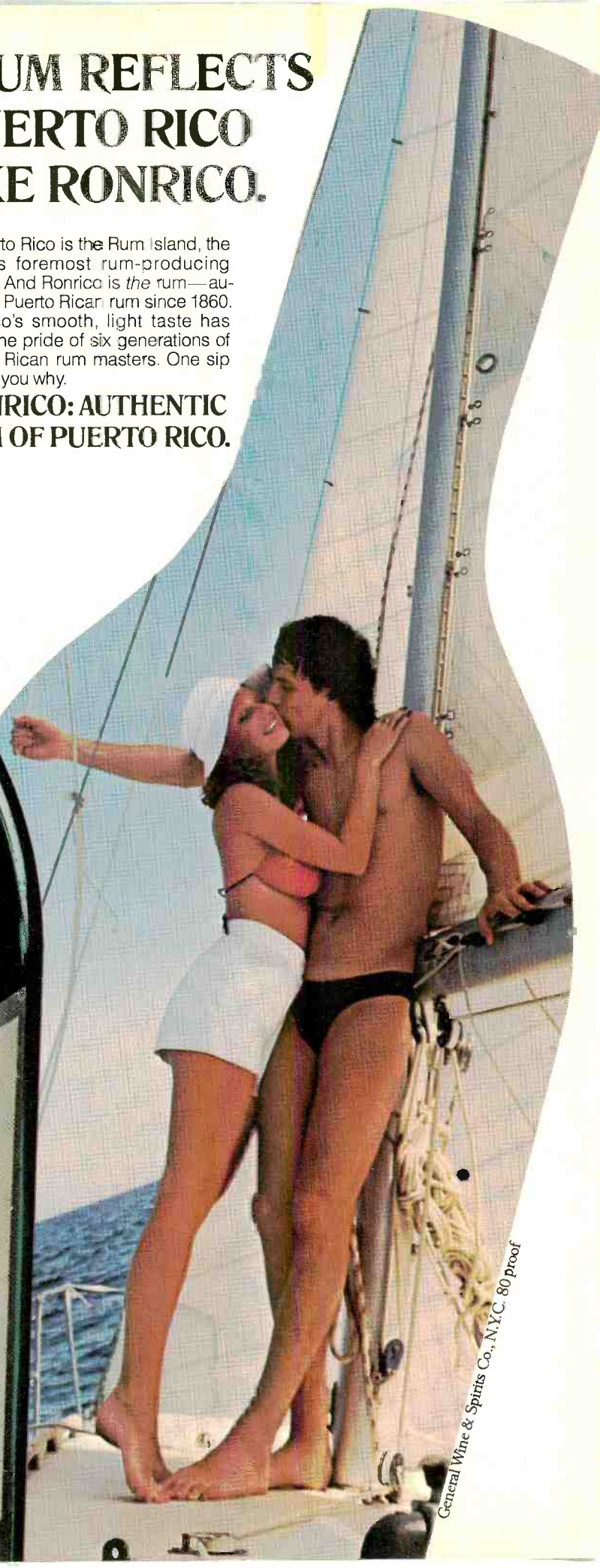
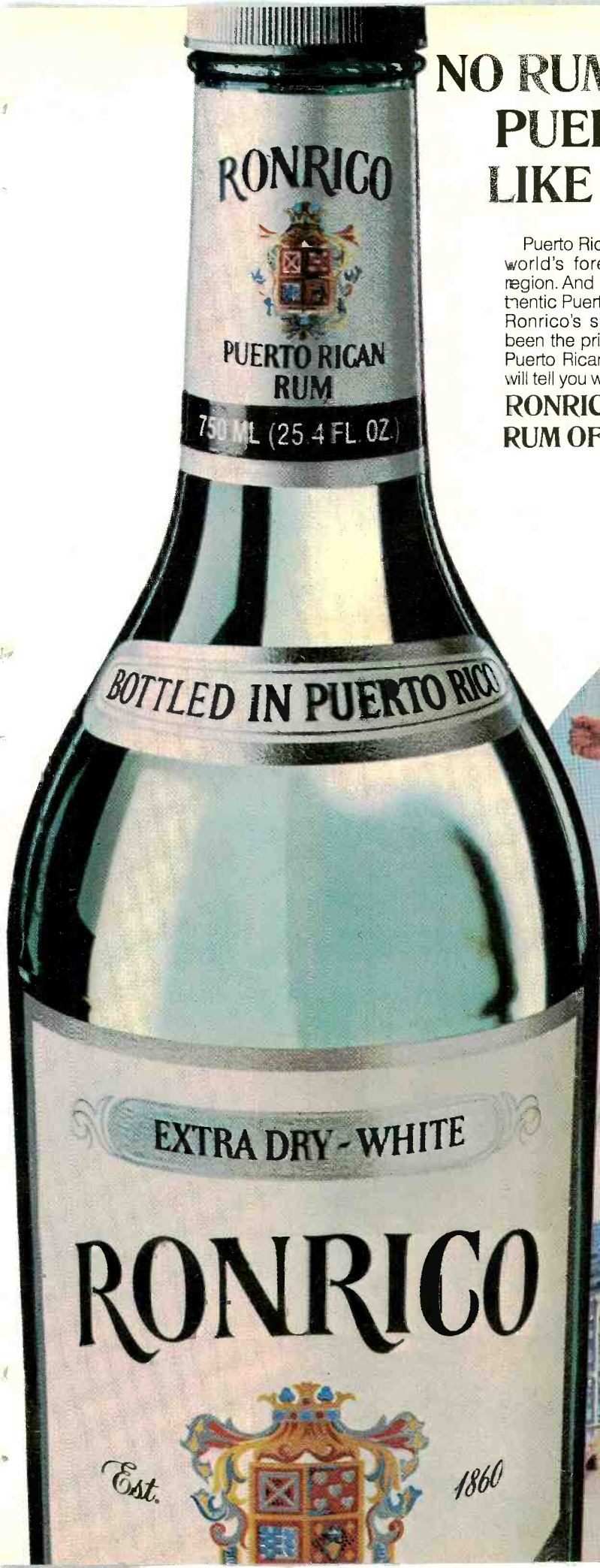
The base and motorboard of the JVC QL-F6 are of die-cast aluminum, with a sound-absorbent bottom cover and a hinged plastic dust cover. The entire record player is supported on spring feet to isolate it from con-

(Continued on page 44)

NO RUM REFLECTS PUERTO RICO LIKE RONRICO.

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

**RONRICO: AUTHENTIC
RUM OF PUERTO RICO.**



General Wine & Spirits Co., N.Y.C. 80 proof

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to low THD.

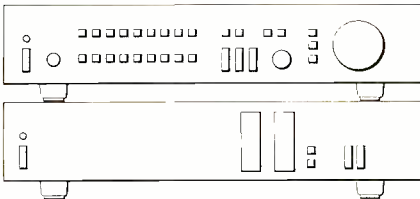
Ours gives you better sound.



Harman Kardon introduces low negative feedback design. High Technology Separates with low THD and inaudible TIM— for incredibly clean, open sound.

For the last few years, audio manufacturers have been rushing to bring you newer, lower THD (Total Harmonic Distortion) levels in their amplifier sections. And every year, they've accomplished this objective the simplest way they could. By adding more and more negative feedback, a form of electronic compensation that feeds the amplified music signal back through the circuit.

Unfortunately, this universal "cure" for THD—high negative feedback, typically 60-80 dB—creates a new form of distortion. It's called Transient Intermodulation Distortion, or TIM. And it's much more audible than THD. TIM causes music to become harsh, metallic and grating. And the spatial relationship of the instruments to become vague, smearing the image.



At Harman Kardon, our new 700 series amp and preamp give you low THD figures, too. But we did it the right way—by properly designing the amplification circuitry to deliver low THD even before we apply negative feedback. That keeps our negative feedback at just 17 dB. And our TIM level at just .007%. Well below the audible threshold.

The result is pure, clear, transparent sound and stereo imaging that places instruments and vocals precisely.

**"Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

Beyond TIM.

Of course all the Harman Kardon components incorporate our traditional ultrawideband design, which provides fast transient response and phase linearity. We also use discrete components instead of integrated circuits, which create their own distortion.

But beyond these major design considerations, we've also paid attention to all the small details.

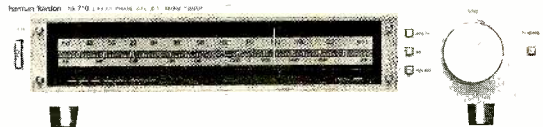
In the hk725 preamplifier, for instance, we used fixed resistor pushbuttons for tone controls. They introduce less distortion than rotary knobs. We also incorporated DC coupled FET front ends in both our 8-stage phono section and our high level stage. Again, less distortion. And improved signal-to-noise ratio.

On the hk770 power amplifier, we used two separate toroidal power supplies, which eliminate cross-talk and hum. And DC coupling, which provides tighter, more articulate bass.

Performance matched separates.

Once we designed the heart of our new 700 series High Technology Separates, we addressed the remaining components just as carefully.

The hk715 digital quartz-locked tuner gives you a full complement of features. It locks in to the channel center every time. And stays there, drift-free. It also has a memory subsystem that lets you store up to 8 stations and recall them instantly at the touch of a button.



We designed a linear phase analog tuner as well. The hk710. With an improved version of the phase-locked circuitry we introduced to the industry nearly 10 years ago. It remains the industry standard today for quality tuners.

Then there's the hk705 cassette deck. With metal tape capabilities, and a frequency response of 20-19,000 Hz (± 3 dB). And the all-new Dolby* HX headroom extension circuitry. It provides an added 10 dB of high frequency headroom, as well as a 68 dB signal-to-noise ratio that is comparable to open reel decks that cost twice as much.

Once we finished the inside, we went to work on the outside. To bring you a striking system of modular separates. Each measuring a compact 15.2" wide x 2.9" high.

These performance matched separates stack beautifully. They give you a noticeably cleaner, clearer, less distorted sound than any system anywhere near the price.

We suggest you audition them. But only if you're serious.

Once you hear the difference, you'll never be satisfied with anything less.

(For the location of the Harman Kardon dealer nearest you, call toll-free 800-528-6050, ext. 870.)

harman/kardon
55 Ames Court, Plainview, NY 11803

CIRCLE NO. 17 ON READER SERVICE CARD

ducted vibration. With the cover down, the record player is approximately 17 $\frac{7}{8}$ inches wide, 15 $\frac{3}{4}$ inches deep, and 5 $\frac{5}{8}$ inches high. It weighs 24 $\frac{1}{4}$ pounds. Price is \$400.

● **Laboratory Measurements.** To test the JVC QL-F6, we installed a Shure M95HE cartridge in its arm, operating it at 1.5 grams. The head shell has a calibrated scale that shows the distance from the mounting centers of the cartridge to the end of the arm tube. The optimum setting, according to JVC, is 48 mm (note that this is *not* the same as the stylus-to-pivot distance normally specified by most record-player manufacturers). However, we discovered that the dimension given should correspond to the *stylus* position rather than to the *mounting hole* position as shown in the manual. With most cartridges, the stylus is 9.5 mm beyond the mounting holes, so the scale reading on the head shell (when the arm is adjusted for minimum tracking error) will be about 38.5 mm.

When the cartridge was installed correctly, the tracking error was 0 at radii of 2.5 and 5 inches, and less than 0.7 degree per inch over the rest of a 12-inch record. The calibration error of the tracking force scale was about 0.1 gram after the arm had been carefully balanced. The capacitance to ground of each channel, measured at the end of the supplied signal cable, was about 89 picofarads, and interchannel capacitance was 3.5 pF.

The arm's effective mass measured at the stylus position was 21 grams, which is fairly typical of the more massive integrated record-player arms we have tested recently. The low-frequency resonance with the rather compliant Shure M95HE cartridge was at 7 Hz with an amplitude of about 8 dB. The "Q" dials had little effect, except that the lower settings gave a slightly flatter response than

the higher settings. The adjustment was so uncritical that the dials could be set anywhere in their range with no significant effect on measured performance.

The antiskating, as on most record players, gave its optimum compensation when the dial was set about 0.5 gram higher than the tracking force. Although the cueing device worked smoothly, with no tendency to jar or disturb the arm position, the arm drifted slightly outward during its descent.

The start and stop cycles of the automatic mechanism each required about 12.5 seconds. However, the motor had a very high torque that brought the turntable to exact speed within 1.5 seconds after the arm was lifted from its rest. A speed change from 33 $\frac{1}{3}$ to 45 rpm took only 0.5 second, but the massive platter took 5.5 seconds to slow down from 45 to 33 $\frac{1}{3}$ rpm. The vernier speed-control range was ± 6 per cent, as rated.

JVC uses a novel double-servo system in the QL-F6 to give it exceptional torque characteristics. Although we made no quantitative measurements of torque, we verified that resting a finger firmly on the edge of the platter produced absolutely no speed change in the QUARTZ LOCK mode. In the VARIABLE mode, the control was not quite so tight.

The turntable rumble was a very low -37 dB in an unweighted measurement and -62 dB with ARL weighting. Most of the rumble was infrasonic—under 5 Hz—with a small concentration about 20 to 25 Hz. The flutter was 0.07 per cent weighted rms (JIS) and ± 0.1 per cent weighted peak (DIN). Though they are not unusually low, these figures include the considerable contribution of the test records, whose normal eccentricities and warps prevent measurement of very low flutter levels on turntables. Flutter was principally under 8 Hz.

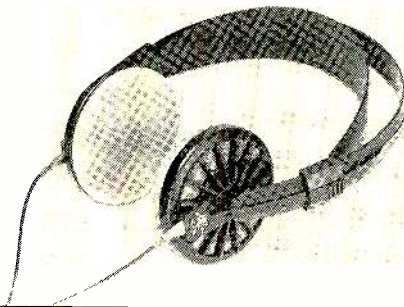
The isolation afforded by the spring mounting feet was about average for similarly designed direct-drive turntables, with the maximum transmission of vibration occurring in the 20- to 40-Hz range.

● **Comment.** We especially appreciated the QL-F6's operation in its fully manual mode, in which no waiting was required for an automatic cycle to "clear" before we could play a record manually. The very tight servo control of the speeds certainly guarantees that a record will be turning at the correct speed or at a known departure from that speed. JVC's meter is actually a more convenient speed indicator than the usual stroboscope system, and it is considerably more visible and legible. If one uses a record-cleaning brush of any kind during play, there is little or no chance that its presence will affect the turntable speed. If the meter reads "0," the speed is exact; otherwise, it reads off scale, indicating total loss of speed control.

From a human-engineering standpoint, we would have preferred to have the cueing control accessible with the cover lowered and more friction between the cueing-lift bar and the arm so as to prevent any arm drift during its descent. Other than the arm-damping question (which we were never able to resolve in our discussions with JVC), we found little to criticize in the operation of the QL-F6. The concept certainly seems valid, and JVC has clearly invested a great amount of engineering and production skill in the development of the arm (its workmanship is visibly elegant compared with many other arms we have seen). Overall, the JVC QL-F6 is a handsome and solidly constructed record player with innovative design approaches.

Circle 141 on reader service card

Sennheiser HD-420 Headphones



MOST Sennheiser headphones employ what the company calls "Open-Aire" construction, with the earpieces resting lightly on the ears and operating through acoustically transparent foam pads which provide little or no acoustic isolation. As a rule, this type of headphone is lighter and more comfortable to wear for extended periods than the sealing type whose ear cushions fit snugly around the wearer's ears to form a pressure seal against the head. The new Sennheiser

HD-420 headphones follow this "Open-Aire" tradition, but they take advantage of recent improvements in magnetic materials to provide improved frequency response and distortion characteristics, together with even less weight than their predecessors. Samarium-cobalt magnets in the earpieces produce increased magnetic-field strength in the voice-coil gaps (each earpiece is, in effect, a miniature loudspeaker). The thin plastic diaphragm is formed with a "whirl-shaped" sur-

round that is claimed to reduce mechanical resonances and improve the audio quality of the phones. Like most Sennheiser phones, the HD-420 has a 600-ohm rated impedance and a sensitivity that provides high volume levels with a very low power input (1 milliwatt of drive will produce a 94-dB sound-pressure level in the mid-frequency range). Harmonic distortion (under unspecified test conditions) is rated at less than 1 per cent. The overall rated frequency response of the HD-420 phones is 18 to 20,000 Hz, with no tolerance stated.

The Sennheiser HD-420 has a comfortable adjustable headband and a straight, 10-foot rubber-covered cord fitted with a molded plug. Should service ever be required, the phones are designed for quick disassembly without tools; the connecting cable plugs into each earpiece, and the earpieces snap on to the headband. The weight of the phones, less the cable, is only 4 ounces. Their suggested retail price is \$84.80.

● **Laboratory Measurements.** Sennheiser supplied us with frequency response and impedance curves on the phones they submitted
(Continued on page 46)



Breakthrough

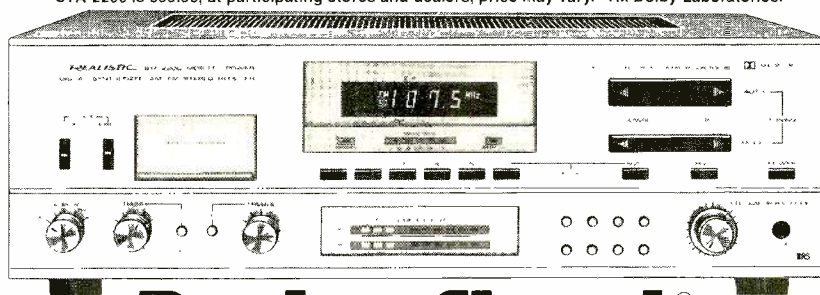
is a word that Realistic[®] uses very very very rarely. But nothing else describes our new STA-2200 all-digital receiver.

Could Radio Shack have scooped its peers (like Pioneer, Technics and Kenwood) in technology as well as features? Before you buy a conventional receiver that may be old-fashioned before 1980 is over, you can see what's really new at any of our stores. And decide for yourself!

The Computerized Tuner. Quartz-locked, microprocessor-controlled digital synthesis circuitry ends mechanical tuning errors and problems. No dial, no knob, no tuning meters. Instead, bright fluorescent digits display each station's frequency with absolute accuracy. Computer-type "feather-touch" tuning automatically scans up or down the FM and AM bands. Or you can select manual tuning. Store any six FM and any six AM stations in the microprocessor memory for instant recall. Even command the receiver to sample the stations in the memory, then touch-select the program of your choice. There's also battery back-up memory protection, Dolby[®] FM noise reduction, LED signal level indicators, and dual-sensitivity muting. And the display "off" is a quartz clock.

The High-Technology Amplifier. The Realistic STA-2200 uses a new generation of power transistors called MOSFETs. Their ultrahigh-speed operation brings you stunningly accurate sound reproduction through superior linearity, superior slew rate and inaudible TIM. They are more reliable than ordinary transistors and generate less heat. The amplifier features go on and on. 11-step bass and treble controls with turnovers for controlling ranges below 150 Hz and above 6 kHz. Tone control defeat. Hi-MPX filter. Monitoring and dubbing controls. And more. Power is 60 watts per channel into 8 ohms, 20-20,000 Hz, with no more than 0.02% THD. And one more thing: it's made by the same company that makes the breakthrough TRS-80[™] microcomputer.

STA-2200 is 599.95, at participating stores and dealers, price may vary. [®]TM Dolby Laboratories.



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The Nationwide Supermarket of Sound[®]

for test. Their curves were made on a B&K coupler with a B&K microphone, while we use a modified ANSI coupler and an Altec 21B microphone for our headphone-response measurements, as well as different paper and chart-pen recorder speeds, all of which factors can strongly affect the final response curve. In spite of these numerous differences, our frequency-response curve closely resembled the Sennheiser curve and had a range and smoothness of output that would do credit to any headphone.

Open-air phones, lacking a seal to the wearer's head, usually do not have the extended flat bass response of the sealing types. In spite of this, the HD-420 had a surprisingly good deep-bass response. It was essentially flat from about 70 to 1,000 Hz, falling off at lower frequencies to -7 dB at 20 Hz. Above 1,000 Hz there were the usual irregularities associated with headphone-coupler measurements, except that in this case there were none of the deep "suck-outs" or exaggerated peaks that we commonly find in headphone frequency-response curves. The average output above 1,000 Hz was perhaps 5 dB higher than at lower frequencies, but the irregularities were limited to about 4 dB peak-to-peak. The overall frequency response was ± 6 dB from 23 to 17,000 Hz (the response of our test microphone falls off rapidly above 15,000 Hz). The impedance of each earpiece was an

almost constant 600 ohms from 20 to 20,000 Hz.

The sensitivity of the HD-420 was almost exactly as rated, with an input of 0.77 volt (1 milliwatt) giving a midrange sound-pressure level (SPL) of 93 dB. We measured the harmonic distortion in the phones' output at 1,000 and 100 Hz, using SPLs of 90, 100, and 110 dB. At 1,000 Hz, the distortion actually decreased with a SPL increase from 90 to 100 dB, dropping from 0.43 to only 0.11 per cent. Even at a very loud 110-dB output the distortion was only 0.28 per cent. At 100 Hz, the distortion was greater because of the increased diaphragm excursion (just as in the case of loudspeakers). It was mainly second-harmonic, measuring 1 per cent at 90, 1.8 per cent at 100, and 5 per cent at 110 dB.

● **Comment.** Because of coupler difficulties, headphone frequency-response curves give only a crude indication of the actual performance of the phones on a human head. There is no substitute for actual listening when judging the quality of a headphone. In the case of the Sennheiser HD-420, our listening evaluation was completely consistent with our test measurements.

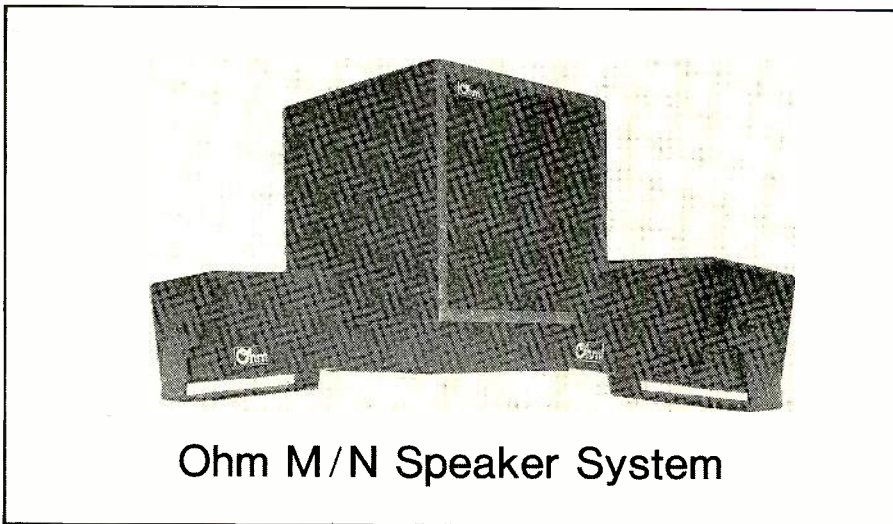
First of all, these phones are so light and comfortable that one can almost forget they are being worn. They do not attenuate external sounds to any appreciable extent, so that

ringing doorbells or telephones as well as nearby conversations can be heard about as well with the phones on as with them off. On the other hand, the program being played through the phones (at a reasonable level) can be heard only fairly close to the wearer.

The sound quality reminded us of what we have experienced with some very high-quality miniature loudspeakers. Of course, no phone sounds like a speaker (or vice versa), but we felt a sense of surprise that something so light and acoustically transparent could envelop the listener (subjectively) in a beautifully balanced sound field. Although we are rarely able to forget that we are wearing headphones, the HD-420 came about as close to achieving that goal as any we have used.

Headphone selection is as personal a process as choosing a loudspeaker, and what suits one person may not be to the liking of another. There are good physical reasons for this, in addition to psychoacoustic explanations, since the actual response of a headphone is closely related to the shape and size of the acoustic-loading cavity—the wearer's ear. Still, we have heard and read much praise of the Sennheiser HD-420 from others, and our own experience completely confirms that it is one of the better phones on the market, and at a most attractive price.

Circle 142 on reader service card



Ohm M/N Speaker System

THE Ohm M minispeaker and the Ohm N subwoofer can be combined to form a very versatile full-range stereo speaker system, or they can be used separately if desired. The Ohm N is suitable for extending the bass range of almost any pair of small speakers, and the tiny Ohm M can be used almost anywhere, including in automobiles and vans (the manufacturer refers to them, perhaps inevitably, as the "Mobile Ohm").

The Ohm M is a true minispeaker, being only 7 $\frac{1}{8}$ inches high, 4 $\frac{1}{2}$ inches wide, and 4 $\frac{1}{2}$ inches deep, but it weighs a solid 5 pounds. Its die-cast aluminum enclosure has a black

wrinkle finish, and accessory brackets are furnished for mounting the speakers in cars or elsewhere. It is a vented system, using a long-throw, 4-inch-diameter woofer which is vented to the rear of the box through a ducted port in accordance with the design criteria developed by A. N. Thiele. It incorporates an infrasonic filter to prevent excessive cone excursion and possible damage to the speaker. At 3,500 Hz, there is a crossover to a 1-inch cloth-dome tweeter. The system is rated for use with amplifiers delivering from 5 to 100 watts and has a rated frequency response of 120 to 20,000 Hz ± 4 dB. The nominal im-

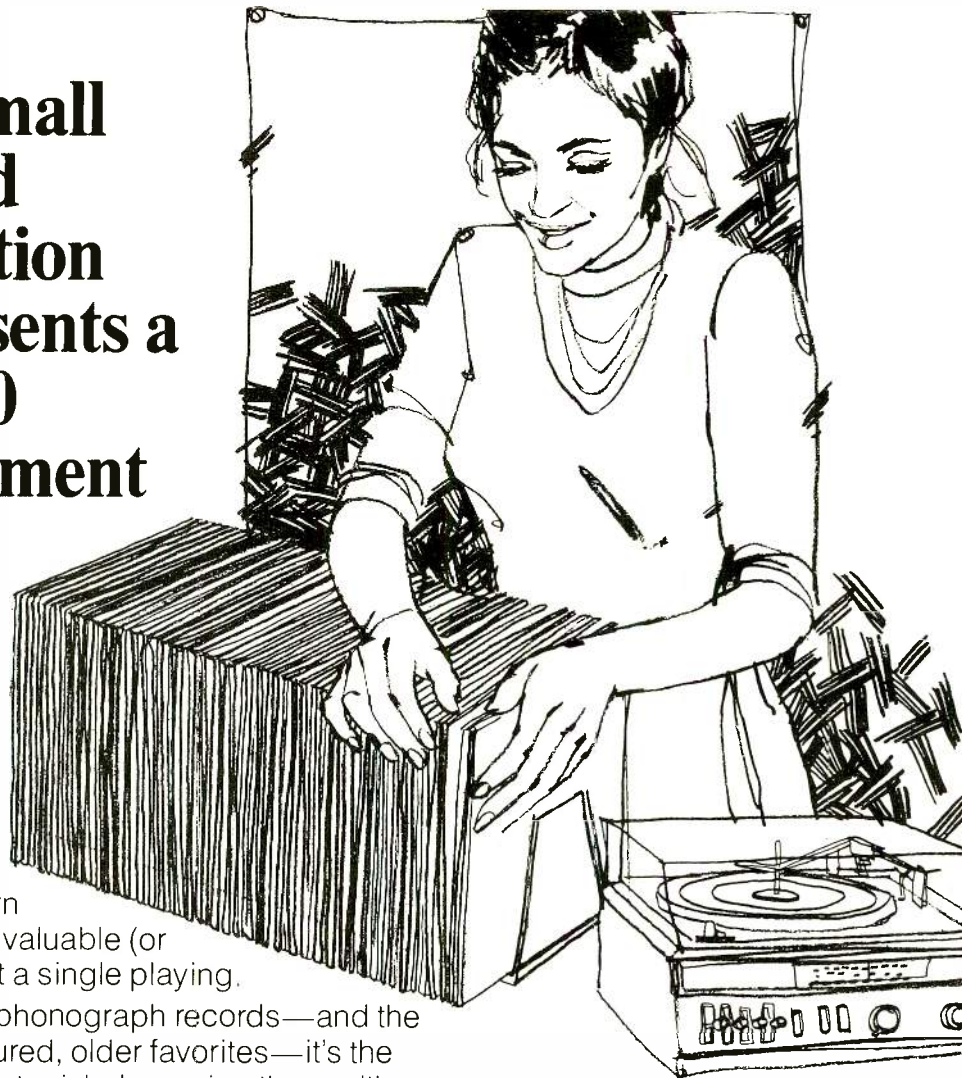
pedance is 4 ohms. The input connectors are insulated push terminals in the rear of the enclosure. The Ohm M is sold only in pairs.

The Ohm N is described by Ohm as a "subwoofer," which the company defines as a speaker dedicated to the reproduction of frequencies below the range of the human voice. By that definition, the Ohm N certainly qualifies as a subwoofer, having a rated frequency response of 32 to 140 Hz (no tolerance given). It is quite compact and nearly cubical in shape (16 inches high, 15 inches square). The interior of the cube is divided by a diagonal partition to form two acoustically separate enclosures. Each houses an 8-inch woofer and a 12-inch passive radiator located on adjacent sides of the cube. The Ohm N also contains a crossover network fixed at 140 Hz. The left- and right-channel signals from the amplifier enter the Ohm N through push terminals like those used on the Ohm M, and similar connectors carry the signals above 140 Hz to the satellite speakers (typically, but not necessarily, the Ohm M). Like any subwoofer, the Ohm N can be located almost anywhere in the room, not necessarily between the satellite speakers or even close to them (the only caution for the Ohm N is that it not be closer than 3 inches to any wall).

The nominal impedance of the Ohm N is 8 ohms, with a minimum rating of 4 ohms, and its efficiency matches that of the Ohm M minispeakers. A three-position slide switch under the subwoofer adjusts the signal levels to the satellites for system balancing. The Ohm N is designed for use with amplifiers delivering from 10 to 100 watts per channel.

(Continued on page 48)

fact:
this small
record
collection
represents a
\$1,000
investment



It's true—the largest investment in almost any hi-fi system is frequently the cost of the records played on it... and just as true that a badly worn phono stylus tip may ruin a valuable (or irreplaceable) record in just a single playing.

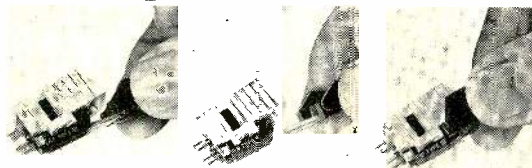
With the rising cost of new phonograph records—and the difficulty of replacing treasured, older favorites—it's the worst kind of false economy to risk damaging them with a worn stylus.

check your stylus (needle) at least once a year

Even a precision crafted diamond stylus tip will eventually become worn, and a worn tip will degrade your system's sound quality. Your Shure dealer can inspect your stylus, and, if necessary, replace it with a Genuine Shure stylus. It's the least expensive insurance for your valuable record collection.

Always insist on a Genuine Shure replacement stylus. Look for the name "Shure" on the stylus grip.

replacing your Shure stylus takes seconds... And requires no tools



- A. Grasp the stylus grip between thumb and forefinger.
- B. Gently withdraw the stylus assembly from cartridge.
- C. Push the new stylus into position in the cartridge until the stylus grip touches the cartridge body.

That's all there is to it, and your Shure cartridge is now back to its original specifications!



Shure Brothers Inc., 222 Hartrey Ave., Evanston, IL 60204, In Canada: A. C. Simmonds & Sons Limited
 Outside the U.S. or Canada, write to Shure Brothers Inc., Attn. Dept. J6 for information on your local Shure distributor.
 Manufacturers of high fidelity components, microphones, sound systems and related circuitry.

CIRCLE NO. 43 ON READER SERVICE CARD

It has four black cloth grilles, held in place by plastic snaps, and the wooden top and exposed edges are finished in walnut. The Ohm N weighs about 57 pounds. Suggested retail price of the Ohm M is \$290 (per pair), and of the Ohm N \$340.

● **Laboratory Measurements.** For the most part, our measurements of the Ohm M/N system were conducted as though they were conventional speakers—a semireverberant-field measurement from 100 to 20,000 Hz and a close-miked measurement of the woofer response from 20 to 1,000 Hz (this was made separately for the driven and passive cones, whose outputs were combined in accordance with their relative radiating areas). The two sets of curves were combined to form a single composite frequency-response curve. We also made a close-miked measurement of the Ohm M low-frequency response to develop a composite frequency response for that system alone.

The portion of the overall frequency-response curve attributable to the Ohm M satellites was smooth and wide, with an overall variation of only ± 2.5 dB from 160 to 20,000 Hz. There was a slight but definite peak of perhaps 3 dB at 14,000 Hz, but the response curve was otherwise as flat as our measurement technique permits. The tweeter's high-frequency beaming was apparent in the difference between the measurements made on the axis of the left speaker and about 30 degrees off the axis of the right speaker, but it was not at all excessive.

The response of the Ohm N subwoofer was flat between 30 and 50 Hz, rising to a +4.5-dB peak at 70 Hz before dropping off at about 12 dB per octave above and below that frequency. Because of the shape of this curve, splicing it to the essentially flat response curve of the Ohm M was less precise than we would have liked. The most reasonable-looking curve we could develop (which roughly

corresponded to what we heard from the system) had a peak at 75 Hz and a dip at 120 Hz before rising to a smaller peak at 220 Hz and continuing essentially flat at higher frequencies. Although the actual response would be a function of the listening room and the speaker placement, our curve could be described as being flat within ± 3 dB from 26 to 20,000 Hz, a rather impressive achievement for a pair of hand-size speakers and a subwoofer that can be tucked away in any part of a small room.

The impedance curve of the complete system started at 16 ohms at 20 Hz (it was evidently higher at lower frequencies) and reached lows of about 3 ohms at 200 and 700 Hz and from 8,000 to 20,000 Hz. One would hardly be likely to parallel two of these systems on a single amplifier (and few amplifiers would take kindly to such treatment), but it would probably be wise nevertheless to confirm that one's amplifier will not be distressed by a 3-ohm load, especially at the higher frequencies.

The bass distortion was quite low, averaging about 1 per cent at a 1-watt input above 40 Hz and rising to 6 per cent at 30 Hz and 9 per cent at 25 Hz. Increasing the drive level ten times made little difference in the distortion at frequencies above 60 Hz, but the low-frequency distortion rose much more rapidly, to 10 per cent at 40 Hz. These distortion figures refer to the driver whose output was dominant at each frequency (the driven cone above 80 Hz, and the passive cone at lower frequencies).

The sensitivity of the Ohm M/N was moderately high, as would be expected from a vented design. With the system driven by an octave of pink noise centered at 1,000 Hz at a 2.83-volt level (1 watt into 8 ohms), the sound-pressure level measured at a distance of 1 meter from one of the satellites was 88, 89, or 91 dB, depending on the setting of the three-way balance switch on the Ohm N. The

sensitivity of the Ohm N was about the same, matching the middle- and high-frequency sensitivity of the Ohm M satellites very well in our listening tests.

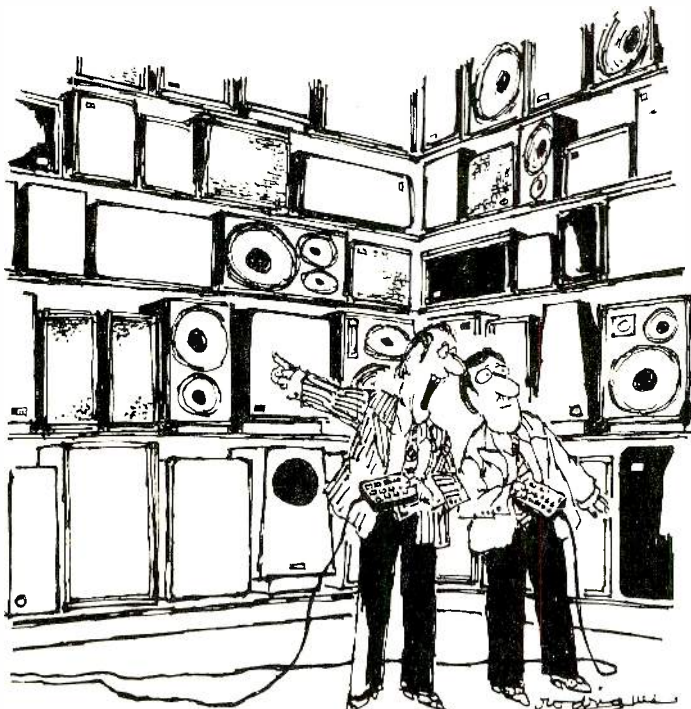
● **Comment.** One's initial reaction to seeing the components of the Ohm M/N system is one of disbelief: surely one cannot obtain a full frequency range from those tiny satellites and that very compact (but heavy) subwoofer module? Well, we can testify that one *can*, and one does, without a doubt. Even knowing the limitations of each part of the system, it is impossible to tell by listening at a normal distance that the lows are coming from the Ohm N. Only within a couple of feet of one of the satellites does the illusion vanish. We tried all the settings of the balance switch, but we did not come to any firm conclusion on an optimum condition. Generally we used the "maximum" position, which minimized the contribution of the Ohm N to the total sound.

It is obvious that a satellite-plus-subwoofer system such as this can eliminate many of the compatibility problems associated with trying to fit a good music system into a room whose decor does not suit a pair of sizable (and too visible) speaker boxes. The Ohm M mini-speakers need not be glaringly visible (although they should be installed close to ear level and in some reasonable approximation to a normal stereo configuration). For example, they could easily be placed on bookshelves, even between books, so that nothing but their black perforated grilles would be visible.

The Ohm N is about as attractive as a simple cube of its dimensions can be, and, being much smaller than most subwoofers we have seen, it can be located almost anywhere without clashing with room decor. Service as a lamp table is one likely possibility, and no doubt there are many other ways to fit it into the scheme of things.

The sound of the Ohm M/N system is smooth, clean, and generally well balanced, with a slight tendency toward bass heaviness when compared with some other speakers having roughly the same overall frequency range. We assume that this quality is associated with the 70-Hz bump in the Ohm N response. Although it does not do violence to most recorded material, including voices, at times it can be felt and heard as a more prominent bass than one might wish to have. This effect can probably be ameliorated somewhat by correct placement of the Ohm N in the room.

We played the Ohm M/N system as loudly as we wished, using much of the power reserve of a 200-watt-per-channel amplifier, without insult to our ears or damage to the speakers. The high efficiency of this system makes the use of a high-power amplifier unnecessary in any event. We have had little occasion in recent years to use miniature satellite/subwoofer systems (they enjoyed brief popularity in the early days of stereo), so that it came as a pleasant surprise to hear how very listenable such an arrangement can be. The Ohm M/N looks (and sounds) to us like a very successful adaptation of this time-honored system configuration to the latest in speaker technology.



“... THE AUDAL MARK FOURS. WHICH ONES ARE YOU LISTENING TO?”

(Continued on page 50)

Circle 143 on reader service card

The logic behind the Revox B77.

The logic is the logic which is built-in.

It's an ingenious and highly sophisticated system—much like the human nervous system—which controls the deck's functions.

You can push any button in any order with no chance of damaging your tapes. Our motion sensing system constantly feeds status reports to the logic circuitry which activates your commands in proper sequence.

The logic also permits full-function remote control, and an editing mode that keeps the playback circuitry live, even when the motors are stopped. You can make your splices right on-the-beat, and our built-in splicing block makes it easy.

The design and construction of the Revox B77 further guarantee smooth and accurate operation. To get the

long-life advantage of ferrite without static build-up or heat degradation, we use Revox's exclusive Revodur heads, made of metal to dispel heat and static, and vacuum-coated with permalloy for durability.

The B77 has a unique capstan motor that's monitored by a tacho head to precisely control speed and limit wow and flutter to professional studio standards.

Revox offers many options with the B77 including a full range of speed configurations from 15/16 IPS to 15 IPS, variable speed control, 1/4 track record/playback and more.

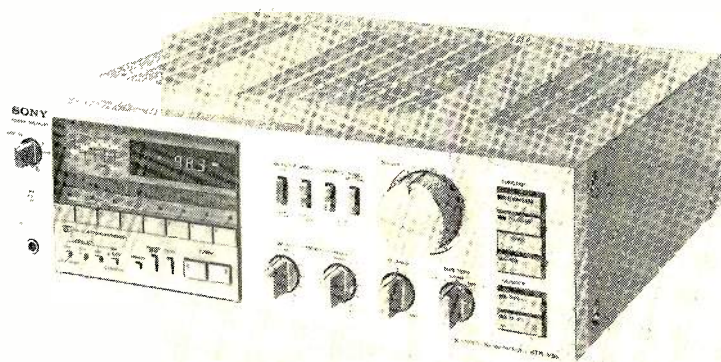
All this professional quality is neatly engineered to fit in a deck you can carry. After all, if you own a machine this good, it's logical to take it with you.

Experience the B77 and the full line of Revox audio components at your franchised Revox dealer today.



STUDER REVOX

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CIRCLE NO. 51 ON READER SERVICE CARD



Sony STR-V55 AM/FM Stereo Receiver

THE Sony STR-V55 is an unusually compact, lightweight, and distinctively styled AM/FM stereo receiver featuring quartz-crystal-controlled frequency-synthesized tuning on both the AM and FM bands. It has no conventional tuning dial, and the tuned frequency is displayed digitally by blue-white numerals in a dark window.

Instead of the usual signal-strength meter (the precise tuning of the synthesized local oscillator makes a tuning indicator unnecessary), the STR-V55 has five green LEDs that light up in succession with increasing signal strength. The light array slopes upward and to the right, with the highest three lights on a horizontal line (presumably to show that a signal strong enough to light any of them can give satisfactory reception). Below them a red LED glows when a stereo transmission is received.

Two modes of tuning are selected by a small pushbutton in the control area below the frequency and signal-strength displays. In the **MANUAL** mode, a touch on either of two flat pushbuttons, identified by left- and right-pointing arrows, shifts the frequency by 0.1 MHz in the indicated direction (up or down). In **AM** reception, the tuning increments are 10 kHz. If the button is held down, the tuner scans rapidly in frequency until the button is released, covering the 88- to 108-MHz FM band in less than 24 seconds and the AM band in 13 seconds.

In the **AUTO** mode, a momentary touch on one of the tuning buttons causes the tuner to scan rapidly until it comes to a signal strong enough to overcome its muting threshold (there is a choice of two muting levels and an off position). Upon intercepting a signal, the scanning action stops, and in less than a second the signal lights come on (plus the stereo light, if appropriate) and the sound is heard. During all tuning operations, the receiver is muted, and nothing is heard until a station is fully turned in.

Alternate touches of a small pushbutton select FM or AM reception. The band in use is identified in the frequency-display window by the letters FM or AM and MHz or kHz, as well as the frequency-readout numbers. The STR-V55 has a nonvolatile digital memory that can store up to eight station frequencies indefinitely, even when the receiver is unplugged from the power line. The stored frequencies can be called up at any time by a

touch on one of eight flat buttons between the control and display areas. To store a frequency in the memory after the station has been tuned in, a **MEMORY** button and one of the eight selector buttons are touched. Either an AM or an FM frequency can be assigned to each of the buttons in any sequence. Subsequently, a touch on any button recalls the stored channel instantly and a small red light above the button comes on.

There is a **MEMORY SCAN** mode, activated by touching one of the buttons, which causes the receiver to scan in sequence through all the stored channels, pausing for five seconds on each one (with the corresponding red LED blinking on and off) before moving to the next. To stop the scan, one merely has to touch one of the station-selector buttons.

Sony has provided a simple yet effective means of identifying the frequencies assigned to each of the buttons. A plastic slide with eight rectangular panels corresponding to the button positions can be seen through a window above the buttons. It can be removed easily through a slot on the left side of the receiver. Numbered paper labels are provided with the receiver, and once they have been mounted on the slide, the frequency and band assigned to each button are visible at a glance.

The other operating controls of the Sony

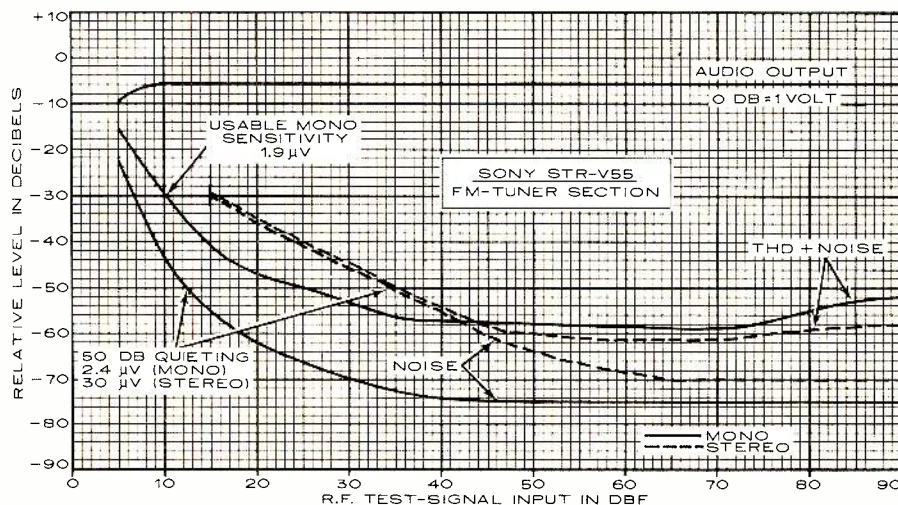
STR-V55 are conventional. A knob at the upper left of the panel turns on the receiver and activates either, both, or neither of two pairs of speaker outputs. Below it is a stereo-headphone jack. To the right of the frequency display are four narrow rectangular pushbuttons controlling the **LOW FILTER** (with a 15-Hz cut-off), the **MONO/STEREO** mode, **LOUDNESS** compensation, and **AUDIOMUTING** (a 20-dB volume reduction). To their right is a large volume knob, lightly detented to give it a positioning "feel."

Below these controls are bass and treble tone controls, each having five positions of boost and cut, and a center defeat position. The balance control has a center detent. The **TAPE-COPY** knob connects two tape decks for dubbing from either machine to the other, or for recording the selected source program on either or both machines. The remaining controls are larger flat pushbutton switches in a vertical row at the right side of the front panel. Five of them are input selectors, for moving-coil or moving-magnet (MC or MM) phono cartridges, aux, and tuner inputs. Two at the bottom are the tape-monitor switches for the two tape decks.

The rear apron of the receiver carries the usual input and output connectors, antenna terminals, and a hinged and pivoted ferrite-rod AM antenna. There are separate **PRE-OUT** and **POWER-IN** jacks, joined by jumper plugs, that allow accessories to be connected between the preamplifier and power-amplifier sections. One of the two a.c. outlets is switched.

One of the most unusual features of the Sony STR-V55 is not visible externally, nor can it be heard, although its presence can be appreciated when one picks up the receiver. The words "Pulse Power Supply," discreetly printed on the front panel, are a clue to its nature. Unlike other receivers that pass the incoming 120-volt, 60-Hz power through a large, heavy power transformer, rectify it, and smooth the d.c. with large filter capacitors, the STR-V55 has a pulse-type power supply only a fraction the size and weight of an equivalent "brute force" power supply. The 120-volt power goes to a bridge rectifier (without an intermediate transformer) whose d.c. output is partially filtered by a relatively small capacitor before it enters a completely sealed metal can mounted to the left side of

(Continued on page 52)



The 1980 Mazda RX-7 GS

Just one look is all it takes to appreciate the exceptional value of the Mazda RX-7 versus Datsun 280ZX or Porsche 924.

As remarkable as the Mazda RX-7 is on its own merits, it looks all the better when compared with the competition. Because the sleek, aerodynamic RX-7 is virtually everything you could want in a refined sports car—at an almost unbelievable price.

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In auto racing, a specially-prepared RX-7 won its class at the Daytona 24-hour race. Another RX-7 set a world speed record at Bonneville.

The smoothness of the rotary engine makes the RX-7 a quiet sports car. All this performance from a car that can attain excellent gas mileage on the open road.

17 EST. mpg **28** EST.** hwy mpg

But the front mid-engine RX-7 offers infinitely more than performance. It also provides extraordinary comfort.



So if you know what you want in a sports car, and you don't want to pay a king's ransom to get it, take a look at the RX-7 GS or S Model. The beautifully-styled, high-mileage, high-performance sports cars from Mazda.

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• Styled steel wheels • Steel-belted radial tires • Front and rear stabilizer bars • Ventilated front disc and finned rear drum brakes with power assist • Electric remote hatch release. 3-speed automatic transmission, air conditioning, aluminum wheels and sun roof available as options.

\$8295*

*Manufacturer's suggested retail price for GS Model shown. S Model \$7495. Slightly higher in California. Actual prices established by dealers. Taxes, license, freight, optional equipment and any other dealer charges are extra. (Wide alloy wheels shown \$275-\$295.) All prices subject to change without notice.

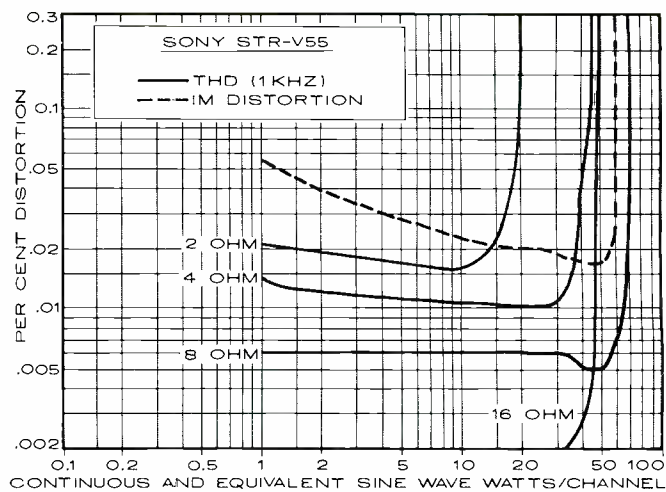
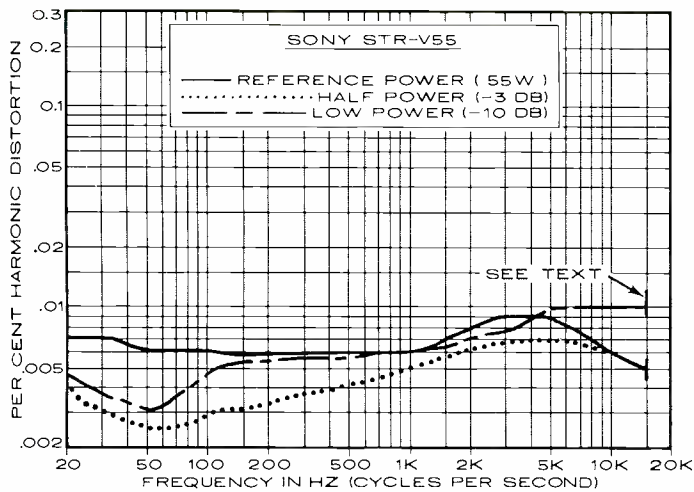
**EPA estimates for comparison purposes for GS Model with 5-spd. trans. The mileage you get may vary depending on how fast you drive, the weather, and trip length. The actual highway mileage will probably be less. California, 16 estimated mpg, 27 estimated highway mpg.

Mazda's rotary engine licensed by NSU-WANKEL.

Mazda

The more you look,
the more you like.





the chassis. There it powers a 23-kHz oscillator whose output goes through a small power transformer before being rectified and filtered. High-frequency transformers and filter capacitors are dramatically smaller and lighter than comparable low-frequency units. The d.c. voltage from the rectified 23-kHz voltage leaves the sealed box and powers the receiver's circuits. The supply is electronically regulated, since any shift in the output voltage is fed back to the oscillator so as to correct for the change.

A pulse-type power supply must be completely shielded to prevent harmonics of the oscillator (whose signal is a square wave rich in harmonics) from radiating either into the tuner circuits or into other nearby receivers. Sony has taken great pains to "button up" the power supply of the STR-V55, and as a result no trace of the oscillator frequency or its harmonics can be detected in or near the receiver. The cabinet and panel are finished in a silver-grey color, and overall dimensions are 16 $\frac{7}{8}$ inches wide, 14 $\frac{3}{4}$ inches deep, and 5 $\frac{1}{2}$ inches high including the knobs and rear projections. The receiver weighs only 14 $\frac{3}{4}$ pounds, and the suggested retail price is \$550.

● **Laboratory Measurements.** The high efficiency of the receiver's pulse power supply

was evident from the only mildly warm exterior after an hour of operation at one-third rated power and five minutes at full power. When we drove both channels at 1,000 Hz into 8-ohm loads, the outputs clipped at about 70 watts per channel. The clipping powers into 2-, 4-, and 16-ohm loads were, respectively, 21, 49, and 47 watts. (The amplifier's protective relay disconnected the outputs when we tried to drive 2-ohm loads beyond 21 watts.) The IHF clipping headroom (8 ohms) was 1.06 dB. In dynamic-power measurements, the power at clipping was 75.5 watts into 8 ohms (IHF rating of 1.38 dB) and 59 watts into 4 ohms. We made this measurement with 2-ohm loads as well, but there was no distinct "clipping level" visible on the waveform, which became visibly distorted at about 19 or 20 watts.

The harmonic distortion of the STR-V55 at 1,000 Hz (8 ohms) was a constant 0.006 per cent from under 1 watt to more than 30 watts output, dropping to 0.005 per cent at 40 to 50 watts and reaching 0.01 per cent at about 65 watts. Driving 4-ohm loads, the distortion was between 0.01 and 0.02 per cent from 1 to 38 watts, rising to 0.05 per cent at 40 watts. The distortion readings at 2 ohms were 0.016 to 0.02 per cent from 1 to 14 watts, rising to 0.18 per cent at 20 watts. The intermodulation distortion with 8-ohm loads

decreased from 0.055 per cent at 1 watt to 0.02 per cent or less from about 10 to 55 watts, and it was 0.027 per cent at 60 watts.

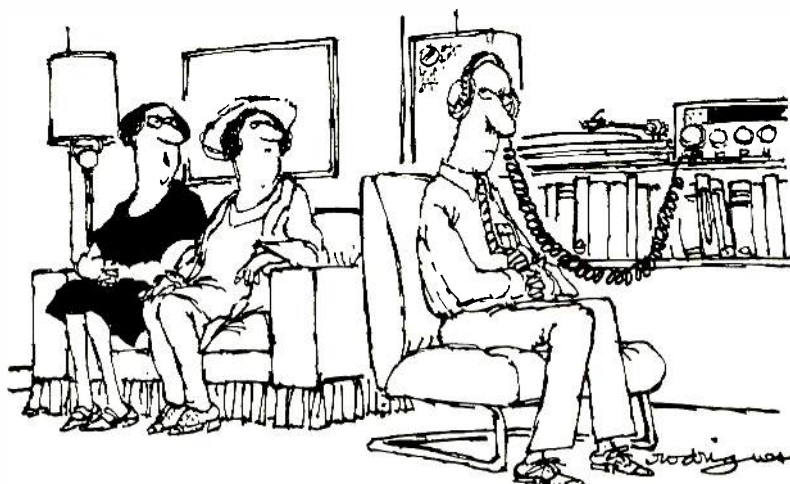
The distortion (8-ohm loads) remained low at all audio frequencies. At rated power it was typically 0.006 per cent, remaining between 0.005 and 0.009 per cent from 20 to 20,000 Hz. The distortion characteristic at lower power outputs was similar, with slightly lower readings at most frequencies.

The amplifier delivered a reference output of 1 watt with an AUX input of 11 millivolts (mV) or a PHONO (MM) input of 0.15 mV. The respective noise levels were -71 and -69.5 dB, referred to 1 watt (A-weighted). The phono preamplifier overloaded at about 175 mV, although at 20,000 Hz the overload (referred to an equivalent 1,000-Hz level) occurred at 157 mV. The high-frequency overload took the form of a soft and gradual rounding of the waveform with no hard clipping visible.

The amplifier rise time was 6 microseconds through the AUX input and 1 microsecond through the POWER AMP inputs in the rear of the receiver. The slew rate (through the complete amplifier) was 15 volts per microsecond, and the IHF slew-factor exceeded our measurement limit of 25.

The tone controls had the usual characteristics: a sliding bass-turnover frequency and a hinged treble response. A peculiarity of the treble-control curve was the fact that almost all of the response change took place in the first couple of steps away from the flat setting, and at some frequencies the output was actually greater with maximum cut than with a partial cut! The loudness compensation boosted the low frequencies and, to a much lesser degree, the highs. The 15-Hz filter reduced the output by 1 dB at 30 Hz and 3 dB at 20 Hz. RIAA phono equalization was accurate within ± 0.5 dB from 40 to 20,000 Hz, and it was down 1.5 dB at 20 Hz. When measured through the inductance of typical phono cartridges, the phono response increased slightly (by up to 1 dB) at frequencies between 3,000 and 20,000 Hz.

The FM-tuner section had a mono usable IHF sensitivity of 10.8 dBf (1.9 microvolts, or μ V), and in stereo it was 15 dBf (3 μ V). The stereo switching threshold was 13.5 dBf (2.5 μ V). The mono 50-dB quieting sensitivity was 13 dBf (2.4 μ V) with 1.6 per cent total harmonic distortion (THD), and in stereo it was



"... No, those are open-type earphones. The little snake can hear every word I'm saying."

35 dBf (30 μ V) with 0.34 per cent THD. At a 65-dBf input (1,000 μ V) the distortion was 0.11 per cent in mono and 0.09 per cent in stereo (the distortion was slightly higher at both higher and lower signal levels). The signal-to-noise ratio in mono was 74.5 dB, and in stereo it was 70 dB.

The stereo-FM frequency response was ± 0.5 dB from 30 to 15,000 Hz, and the channel separation reached an impressive 52 dB at low audio frequencies. It was more than 46 dB up to 1,000 Hz and better than 30 dB over the full 30- to 15,000-Hz range. The 19-kHz pilot-carrier leakage into the audio was 38 dB below 100 per cent modulation, and the tuner hum was a low -75 dB.

The FM capture ratio was in the 1.2- to 1.3-dB range depending on signal strength. The AM rejection was a fair 49 to 50 dB. Image rejection was a good 81 dB, and the alternate- and adjacent-channel selectivity measurements were, respectively, 71 and 5 dB. The FM muting threshold was 14 dBf (2.7 μ V).

The signal-strength lights in FM reception came on at inputs of 4, 18, 30, 38, and 55 dBf. The last three, which are on the same horizontal line on the display, also correspond to levels that will give reasonably quiet reception even in stereo. The only measurement that we made on the AM-tuner section was of its frequency response, which was down 6 dB at 200 and 3,000 Hz relative to the 1,000-Hz level.

● **Comment.** The unit we tested was a very early production sample, and it is possible that some of the measurements, particularly on the tuner section, would have been better on a later production unit. Nevertheless, no apologies need be made for this very handsome, compact receiver.

The amplifier section was unqualifiedly excellent, and the FM-tuner performance was quite good except for the AM rejection and the pilot-carrier suppression, both of which were merely okay. We did appreciate the smoothness and silence of the tuning operation, for it eliminates the last vestige of human error from the tuning process. The controls, both pushbuttons and knobs, operated positively yet very lightly.

We did not test the moving-coil phono input of the STR-V55 other than to verify by listening that it had reasonably low noise. The overall sound of the receiver, using either FM or phono sources, was excellent. We were especially impressed with the effectiveness of the shielding and filtering of the pulsed power supply. An earlier experience with an amplifier using a similar power supply had shown us the size and weight savings it provides, as well as the difficulty of controlling its spurious radiation. Sony has solved the latter problem 100 per cent in the STR-V55, since a spectrum-analyzer search of the audio outputs failed to reveal a trace of the power-supply oscillator frequency or its harmonics.

The appearance of the Sony STR-V55 is distinctive—in fact, unique—with little resemblance to former Sony styling or to that of any other brand. The size and weight of the receiver could give one the impression that it is a low-power unit (it is smaller and lighter than most 15-watt receivers), but it is actually powerful enough—and good enough—to do justice to the finest music system.

Circle 144 on reader service card

MARCH 1980

The advertisement features a large, stylized portrait of the Bee Gees (Barry, Robin, and Maurice Gibb) against a dark background with star trails. In the foreground, two Ampex Grand Master 90 tape boxes are shown, one slightly behind the other. The text is arranged in a dynamic, flowing manner across the bottom half of the image.

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Ampex Grand Master The Tape of the Stars

CIRCLE NO. 3 ON READER SERVICE CARD

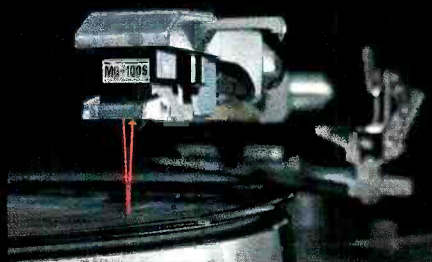
AMPEX CORPORATION Magnetic Tape Division Redwood City, CA 94063 (415) 367-2888

The new



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

Push the wireless remote control button and select track 1, track 3, track 6 or any other. The micro processor automatically moves the arm to play the selected track. You can repeat the same track, select another or play



the entire record over again all by wireless remote control. And there's an LED readout to indicate the track being played.

Since you can select the music you want to record, making tapes from your record collection becomes easier and more convenient than ever before.

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

Fisher's exclusive Linear Drive. With Linear Drive, the only moving part is the platter itself. So, there's

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

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

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

It's what you'd expect from the new Fisher. We invented high fidelity

over 40 years ago. And never stopped innovating. So check out the new MT6360 at your Fisher dealer. One demonstration of the automatic track selector will change, forever, the way you listen to records.

Fisher Corporation, 21314 Lassen Street,
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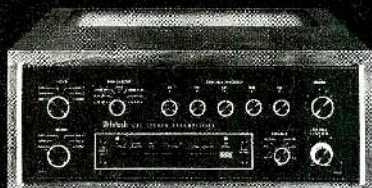


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CIRCLE NO. 31 ON READER SERVICE CARD

The Pop Beat

By Paulette
Weiss



Pop Music Editor Weiss
with singer/songwriter
Willie Nile.

MAD ABOUT THE BOY

I SPOKE to Stevie Simels; he feels the same as me: there is nothing more exciting for a music journalist than discovering an important new artist early in his career. Consequently, the best Christmas present I received last year was a young New Yorker named Willie Nile, provided with the compliments of Arista Records. No, Arista did not send him to me all done up in ribbons and bows, but merely gave me an exclusive first hearing of his debut album, "Willie Nile" (Arista AB 4260), while it was still in preliminary tape form.

Nile began performing in Manhattan folk clubs early in 1978. Arista signed him toward the end of that year, and by December 1979 his first album had been recorded, edited, and scheduled for release in February. It is dazzling—at times vibrant and driving, at other times tender and melodic. To describe the album's contents merely as rock-'n'-roll laced with folk is about as accurate as describing a Rolls Royce Silver Cloud as a large car with four doors.

Nile's music is like a big surprise package into which are crammed twenty-five years of rock history. If you enjoy looking for influences, you will notice, as you play his album, a modified Jerry Lee Lewis boogie-woogie piano run on *I'm Not Waiting* and a chiming Byrd-like guitar intro on *Vagabond Moon*. You'll hear that Nile's *Sing Me a Song* not only sounds a bit like Dire Straits' *Sultans of Swing* sped up, but also slyly and smoothly incorporates a snatch or two of the venerable *Ghost Riders in the Sky*. Despite these and other recognizable influences (such as Buddy Holly, the Stones, a clutch of British popsters and American rockabillys), Willie Nile has an unquestionable originality. The ragged quaver in his voice may remind many listeners of the early Bob Dylan, but he uses it much more tellingly than Dylan ever did.

The scope and authority of Nile's songs is impressive. There are wit and passion and even disturbing personal images. The instrumental arrangements carry the lyrics without ever competing with them or obscuring them. Of the eleven songs on the album, *Old Men Sleeping on the Bowery* is the most arresting, the most cohesive, and the one I find the best measure of Nile's artistry. His intense vocal

vibrates with a restrained rage and is accented by a repetitive jangling guitar and an insistent supporting drum figure. Unlike most angry-young-man rock songs whose lyrics state the cause of anger ("My woman left with my dog and my manager/I'm so mad I'm gonna punch myself in the eye"), *Old Men Sleeping on the Bowery* simply juxtaposes three distinct visual images. The rage issues from these images through the powerful instrumentals and Nile's emotion-packed vocal, which culminates in a wail that runs up the scale and breaks off abruptly. It is a magnificent performance.

Not all the material here is so hard-driven; the program is beautifully paced. Lovely melodic ballads, such as *Across the River*, alternate with *Dear Lord*, a spunky novelty number reminiscent of Janis Joplin's *Oh, Lord, Woncha Buy Me a Mercedes Benz*, and with *That's the Reason*, a rambunctious pop tune with roots somewhere in the early Sixties.

In his lyrics Nile often creates vivid images and sometimes comes up with a gem of wit. I particularly like some of his rhymes—for example, "Came summer, came autumn/ Came the years, we tried, we fought 'em" from *It's All Over*. Occasionally he succumbs to cliché, notably in the rather colorless *Behind the Cathedral*.

Nile handles vocals, piano, and acoustic and electric guitars on the album, which was produced by Roy Halee, best known for his work with Simon and Garfunkel. The group—Clay Barnes, electric guitar and background vocals; Tom Ethridge, bass; Peter Hoffman, electric guitar; and Jay Dee Daugherty, drums and percussion—will be changed for Nile's tour beginning in March. Barnes and Ethridge will return to their own group, the Cryers, but as of this writing no replacements had been named. Nor had it been confirmed that Nile would be touring with the Roches, who had requested a double bill with their friend from the New York folk-club circuit.

REGULAR readers of this column know that I rarely plug an artist—known or unknown—in print. But Willie Nile has enough talent and vision to make me believe he might be the Great Rock Hope for the Eighties, so as long as he keeps plugging, so will I. □

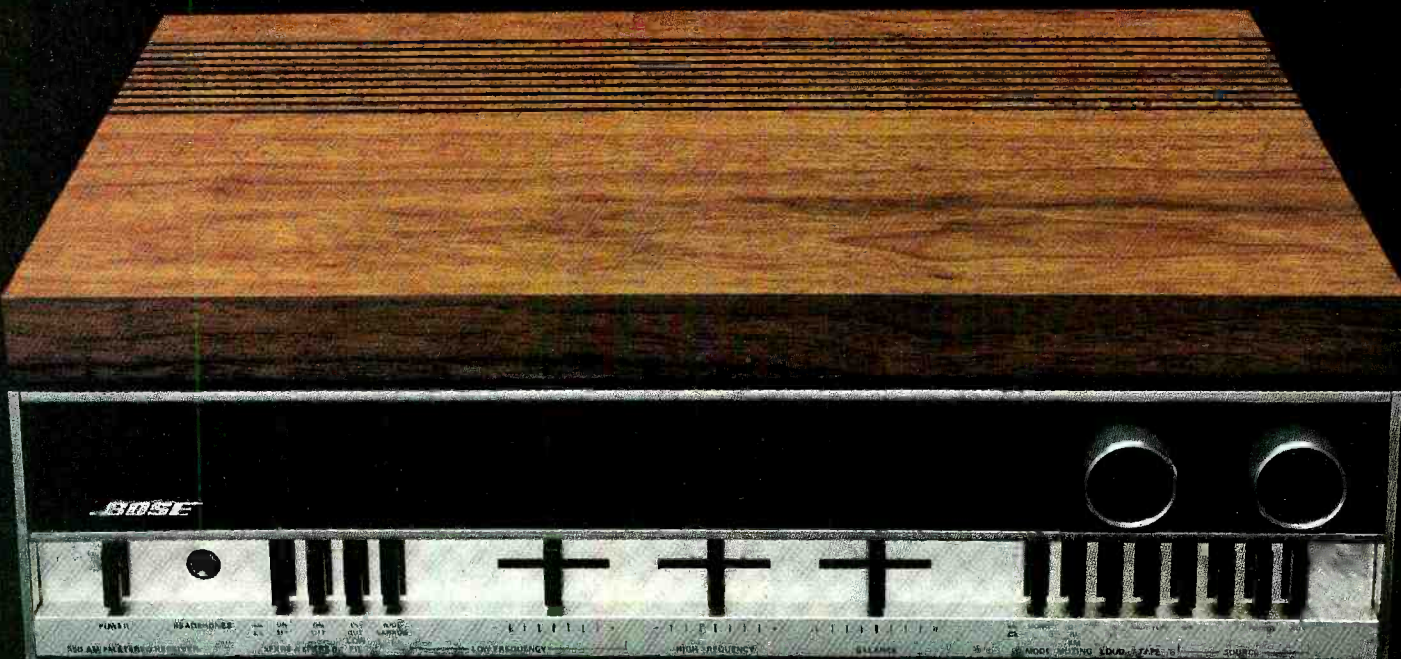
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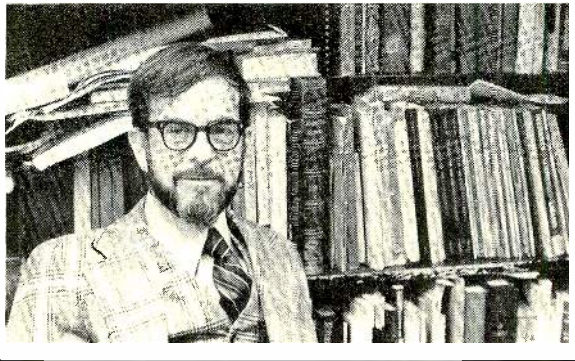


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Going on Record

By James Goodfriend



A CANTICLE FOR NONESUCH

Few people outside the industry have any notion of how many individuals it takes to constitute a record company—particularly a classical record company. The very idea of a nationally distributed product is enough to evoke a vision of a vast organization equipped to handle every problem, every project, and every communication from the outside world. Don't you believe it. A classical record company is a half-dozen people, overworked and underpaid.

Even those six are there only to see that most of the work eventually gets done. So far as determining the style of the company, the quality—musical and technical—of the recordings, the repertoire, the artists, the kinds of promotion, advertising, cover art, and literary material, the typical classical record company is actually only one person or two. Eliminate that one or two and you have killed a classical record company.

So it is no overstatement to say that when Ms. Teresa Sterne was fired by Elektra/Asylum/Nonesuch Records as of January 1 of this year, Nonesuch Records was, in every meaningful way, killed. Ms. Sterne ("Tracey" to the industry) was director of Nonesuch for fourteen of the fifteen years it has been in existence, and the company, as it exists at this moment, is totally a reflection of her standards, her musical sophistication, her inventiveness, her perfectionism, her ideas, and, far from least, her hard work and long hours. It is taking nothing away from her excellent staff (who also got fired) to suggest that Nonesuch is the archetypal one-woman record company.

Nonesuch began in the mind of Jac Holzman, former president of Elektra Records (long before it became Elektra/Asylum/Nonesuch, a division of the huge Warner Bros./Atlantic/Elektra combine), as a packaging and marketing concept. The idea was to lease available European-recorded material, package it in jackets with witty, well-executed art work on the covers (a very new thing), and sell it at half the going price for an LP record. That Nonesuch grew into a company that recorded (superbly) the majority of its own material, built artists' careers to a point of real success, began trends later imitated by larger companies in the field, made the greatest possible contributions to re-

corded Americana, cut through the phantasmagoria of contemporary music to find and record the works that really *had* to be heard, and made records that, all in all, were near the top of the heap in every area but price—all this, one can say without fear of contradiction, was the doing of Tracey Sterne. And so, regardless of the asseverations from on high that Nonesuch will continue to exist as a label, *that* special vision of a classical record company no longer applies to it.

Why did this particular massacre take place? Well, there was, apparently, a downturn in sales. I dare say that a little "creative bookkeeping" could easily show that Nonesuch lost so-and-so many thousands of dollars last year, although one might guess that Elektra/Asylum lost considerably more and that perhaps a large chunk of the overhead fell on Nonesuch. It is also more than possible that Warner's is impatient with the way the classical business operates: small but steady sales over a long period of time. But there are other probable reasons. Most large companies carry their classical divisions at least partially for prestige, but prestige for Atlantic Records has always meant jazz; for Elektra, folk music; for Warner Bros., the oddballs of rock. Nonesuch will be sacrificed largely because there is apparently no one in the upper reaches of the organization who places any value on it. It could perhaps be tolerated as a simple licensing and marketing company (and that is probably what it will turn into again), but Tracey Sterne violated what seems to have become one of the cardinal rules of American industry, once formulated by the late David Kapp (of Kapp Records) as "Don't improve us out of business."

I AM reminded of a scenario Editor William Anderson once set out for me. The scene: any time of world crisis and disorder. The invaders have come. The cities are aflame; looting, killing, and destruction are everywhere. A little man with wild eyes hurries out of a burning building, clasping to his breast irreplaceable fragments of a great culture about to be turned into ashes, and heads for the hills. Will he make it? Will the scrolls, the paintings, the writings be successfully hidden and preserved for posterity? Some Visigoth spots him. Zap. □

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Buyer's Guide to **CASSETTE DECKS**

A close look at today's market by price categories,
plus a discussion of some theoretical angles
that will help make your decision the right one

By Steve Ohr



CASSETTE DECK FOREGROUND:

A practical
approach to
buying

SHOPPING for a cassette deck must be a lot of fun; we know people who've been doing it for years. It's actually deciding which deck to buy that seems to be the hard part. With all the improved specifications and the dazzling new features available, it's very easy to become uncertain about what is really important for one's own purposes, and it's particularly confusing if your budget is limited. So get systematic. The best way to make a decision is (1) see what level of performance and which features are available in a given price bracket, and then (2) discover the best possible buy (without too much compromise) in the bracket your budget can handle.

● **Under \$150.** The least expensive cassette decks naturally have the fewest features. And, too, their performance specifications are not generally terribly impressive, so they are rarely given in great detail. Frequency response, when it's listed at all, will usually be stated as about 50 to 13,000 Hz (with no clue as to how flat it might be), and signal-to-noise ratios will average about 55 dB with Dolby. There are a few decks *without* Dolby (or some other type of noise-reduction system) in this price class, but these are best ignored.

Some listeners consider these inexpensive decks suitable only for the spoken word, but others find them quite adequate for music. In any case, if your budget has you tied down in this neighborhood, be sure to *listen* carefully to

any deck under consideration. If your intention is to record music, be sure to check whether the unit has a recording-level control knob and meters (a few very low-price decks have only automatic level control). These days, even inexpensive decks are likely to have at least one switch to set the deck to handle either "normal" tapes (low bias and a 120- μ sec equalization curve) or "CrO₂-type" ones (high bias and 70- μ sec equalization). Such decks can *play* the new metal tape (on the "CrO₂" setting), but they can't record on it. (Incidentally, almost all of the cassette technical terms you'll encounter in this article are defined in David Ranada's detailed tape glossary starting on page 68 of this issue.)

In practically all cassette decks, the erase and record/playback heads are mounted on a separate internal platform with the pinch-roller. When the recording or playback mechanism is engaged, the platform slides the tape heads into the openings along the edge of the cassette housing, bringing the heads into contact with the tape and the pinch-roller into contact with the capstan. In decks in this price range (as well as in some more expensive ones), the platform is moved into position mechanically and latched by pressure on the "piano-key" play lever. This type of operation provides a reliable means of bringing the tape heads into contact with the moving tape and engaging the capstan/idler mechanism. Wow and flutter specifications are likely to be

CASSETTE DECK BACKGROUND:

Some theoretical
aspects of
performance

As cassette-deck performance improves, there is a natural tendency to compare cassette and open-reel machines. The gap between the two is certainly narrowing, but it still exists. Open-reel tape for home use is 1/4 inch wide (some multitrack *studio* decks use 1/2-inch to 2-inch tapes) and crosses the tape heads at speeds from 3 3/4 to 15 ips, with 7 1/2 ips most commonly used.

Cassette tape, in comparison, is only 1/2 inch wide, and the slow normal recording speed (1 7/8 ips) means that the cassette must pack the same amount of musical information into far less space than an open-reel tape has to. Cassette tapes therefore have a great tendency to suffer magnetic saturation (overload), especially at high frequencies where the information must be packed even more tightly on the tape. This acts as a limitation on both dynamic range and frequency response. (The wow and flutter specification is potentially higher, too, since lower rotational speeds in a deck's mechanical parts means there is less speed-smoothing momentum. In practice, however, the wow and flutter specification of the best cassette decks is about equal to that of most open-reel models.)

The printed frequency-response specifi-

cations for the best cassette decks rival those of open reel. That results, in part, from the industry's concentrated effort to advance cassette-tape and cassette-recorder technology for the very good reason that that's where the need, the potential benefit, and the market size are all greatest. Some of the comparable figures, however, result merely from a difference in the way open-reel frequency response and cassette frequency response are measured.

No consumer tape deck's frequency response is specified as having been measured at a recording level of "0 dB." Open-reel decks are usually measured at -10 dB and cassette decks at -20 dB. That's really not hocus-pocus, since in much music—particularly classical—there's less energy in the high frequencies than in the midrange. So when you're recording music with an indicated "0 dB" on peaks, depending on the content of the program material, the high frequencies may well be recording at a level of -10 to -20 dB.

The frequency-response difference is evident in Hirsch-Houck Laboratories reports on cassette decks or in the specifications of the few metal-tape-compatible tape decks that provide response figures for both the

CASSETTE DECK FOREGROUND...

just below 0.1 per cent. This should be inaudible, except possibly on drawn-out notes on the flute or piano. A mechanical tape counter is standard in this price bracket, as are meters that indicate the average (rather than peak) recording levels over a range of about 22 dB.

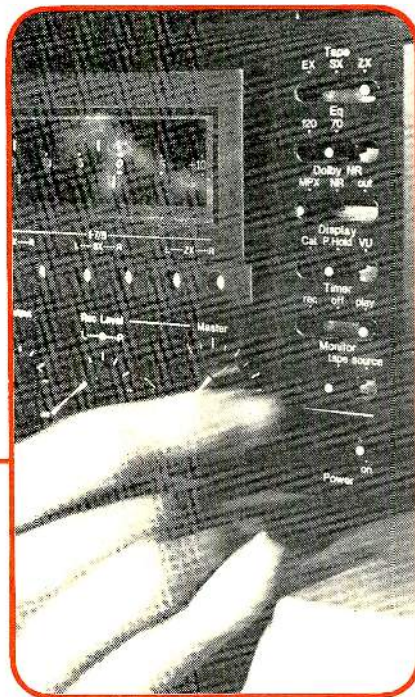
● **\$200 Range.** Until recently, you would be hard put to find a \$200 cassette deck whose frequency response extended flat out to 15,000 Hz. It is now possible, however, to find decks in this price range that can record on metal-particle tape. If a deck is to use metal-particle tape, its manufacturer has to soup up the bias oscillator and redesign the record and erase heads. When they do, they find that they have also extended the high-frequency performance to close to 20,000 Hz—with metal tape, of course.

Peak limiters are available in this price range, as are MPX filters. The peak limiter can be switched into the recording circuit to prevent tape-overload distortion when recording sonic material that contains sudden loud peaks. The MPX filter, used when recording stereo FM broadcasts, will remove the remains of the 19-kHz FM "pilot-carrier" signal which may not have been adequately suppressed by the FM tuner or receiver.

Decks in this price bracket have low-

er wow and flutter than the under-\$150 units, sometimes as low as 0.05 or 0.06 per cent, owing to better-built capstans and motors. Piano-key actuation of functions is the rule here, as are standard recording-level meters. Features remain essentially basic, although some small extras occasionally appear: there may be peak LEDs that flash to indicate instantaneous musical peaks too fast to be registered on the meters, separate input- and output-level controls, provision for operation by an external timer, and, in at least one case, a circuit that can stop the tape between recorded selections.

Also to be found in this category are a number of cassette decks with mechanical "memories" that work in conjunction with the digital tape counter. You can mark the beginning of a particular tape segment by setting the tape-index counter to 000, and when



the tape is rewound (with the memory button on) the deck will automatically stop at that setting on the counter.

● **\$300 Range.** In this price category we first encounter claims of extended frequency response (say, 20 to 18,000 Hz and above—without metal tape). And most decks whose specs claim such response can achieve it—give or take an unknown number of decibels. Better indices to performance are the "secondary" frequency-response curves shown in the specifications; these state response within ± 3 dB and are therefore more representative of the deck's actual audible response. This response can be achieved either with or without metal-tape capability (though, in this price range, many decks already have it, and virtually all of those making their debut this year certainly will).

One method of increasing the frequency response is to double the tape speed (from $1\frac{7}{8}$ to $3\frac{3}{4}$ ips, thus, of course, halving the playing time), and several companies have decks that do just that. The idea is to obtain the dynamic range and frequency response of open-reel in the cassette format. By doubling the amount of tape that passes over a recording head in any given period you effectively double the area available for recorded information. This produces a significant improvement in the signal-to-noise ratio, dynamic range, and high-frequency response. It also reduces the wow and flutter slightly. While most conventional single-speed cassette decks offer a frequency re-

CASSETTE DECK BACKGROUND...

conventional -20-dB and higher levels. The frequency response at the higher recording level will be far more limited and the difference will also be far more pronounced with conventional tapes than with metal ones, which are harder to saturate.

Some manufacturers choose to trade off some of a tape's high-frequency potential for other benefits such as greater dynamic range, while others prefer the reverse. Your ears will tell you which approach is right for you. And you should know that the price has a tendency to climb with frequency-response-range potential. Each extra kilohertz of response makes a smaller audible contribution and costs more than the previous thousand hertz of improvement. It's up to you to decide at what point the increased cost begins to outweigh the importance of improved sound.

● **Metal tape.** The most extended high-level frequency response is to be obtained with

those decks that can record on metal tape (virtually *all* new models over \$300, and many at the \$200 level). But extended response isn't the principal benefit, as a close look at the specifications will show. On many decks, the frequency response for metal tape is equalled by that obtained with CrO_2 or ferrichrome (FeCr) formulations; on others, the difference is a mere kilohertz or so.

If you record material that is rich in high frequencies (such as much rock and electronic music—and live music with good mikes), you may hear a bigger difference than the metal-tape specs might indicate. That's both a direct and an indirect result of an important property of metal tape: high-frequency "headroom." In practice, you can

get a bit more performance out of metal tape by recording at slightly higher levels, thus raising the signal further above the noise. The tape's extra headroom will minimize the high-frequency overload distortion (unless the sound source is unusually rich in highs). The instructions for some decks recommend setting the controls for +3 dB on peaks with metal tapes.

What are the disadvantages of metal tape? First, their cost—roughly double that of other premium tapes—not to mention the additional cost of a new deck if your current deck can't record on these new tapes. Second, availability: although all the major tape makers have joined the metal-tape brigade, metal tapes are still somewhat harder to find in stores than other types. What about head wear? The same rumors that for a while dogged chromium tapes are now dogging metal—with, it seems, just as little cause. Metal tapes are no more nor less abrasive than ferric types.

Is metal tape worth it? That depends both on your ears and on what you intend to record. The more demanding the material you tape, the more the difference will be audible. If all you do is tape FM programs or

sponse that extends out to 15,000 or 18,000 Hz, a two-speed deck can extend frequency response by another 2 to 3 kHz or more.

Another feature which has just begun to appear in this price range is gas-discharge, LED, or fluorescent bargraph level indicators. These displays offer a number of advantages over conventional mechanical meter movements. In addition to looking sleek, modern, and (in some cases) colorful, these lighted bar-graph displays are all-electronic—meaning that, unlike the slow-moving meters, which usually indicate *average* signal levels, they can show *instantaneous* signal peaks.

Good as they are for registering fast signals, however, these displays are no match for meters when it comes to making fine technical adjustments using steady-state signals. Electronic displays operate in discrete increments, but meter needles move through an infinite number of positions, and the eye can easily judge whether a stationary needle is right on the "0" line or just a hair below it. On normal musical signals, though, even a fourteen-step bargraph usually gives the eye all the information it needs or can use to adjust recording level.

● **\$400 Range.** A number of solid mechanical conveniences begin to appear more frequently in this price range. For example, the use of two motors usually provides a better wow-and-flutter rating (the capstan motor need handle only the capstan), and it nearly always

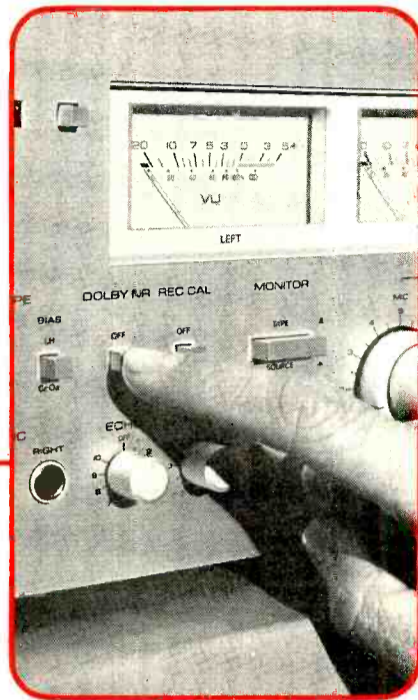
ensures faster rewind time and greater reliability (individual motors are usually far more reliable than the mechanical linkages used to distribute a single motor's rotational energy to three separate drive points).

The dual-motor approach, using electrical switching in place of mechanical linkages, also facilitates solenoid operation. The user merely touches an electrical pushbutton rather than activating the mechanical linkages of a piano-key control. The button switches in appropriate motor-control circuits and activates (in recording or playback) a solenoid which pulls the heads and the pinch-roller that presses the tape against the capstan into place. Solenoid operation not only reduces the effort required to engage the playback mechanism, but it also reduces the time it takes for the deck to swing into action. The result is a more responsive, sturdy,

and reliable tape-recording/playback system.

With electrical pushbuttons controlling the cassette deck, *remote* control then becomes possible. Most remote controls are at the end of a thin cable connected to the deck, but a few high-price machines have "wireless" controls that use infrared signals to send commands back to the deck. As a natural accompaniment to solenoid operation you'll very often find IC (integrated-circuit) logic controls. These electronic circuits automatically sequence the tape transport to respond smoothly and safely to the command signals you've fed in via the electrical pushbuttons. For example, when the deck is in a fast-wind condition, the tape should come to a stop before the "play" or "record" mechanism is engaged. Otherwise the tape can become jammed or broken—perhaps not immediately, but later as a result of tensions set up in the "pack" on the hubs. The IC logic controls assure that a proper, smooth transition will take place no matter how fast you key the controls—or in what order.

On some machines, dual capstans (one at each end of the cassette flanking the tape heads) isolate the tape flow from such influences as friction, tape-pack binding, and hub drag, any one of which could cause speed fluctuations. Dual capstans also provide a more even tape tension across the heads. Such decks commonly have two motors, but the second motor drives the tape take-up and rewind hubs, *not* the second capstan. (Continued overleaf)



your own voice through a \$19.95 mike, you may never hear the difference. Reserve metal tape for those recordings where metal's extra qualities *will* make a difference. And since any metal-capable deck is also going to be a new one, such a deck will probably give you better performance on conventional tapes, too.

● **Variable bias level and EQ.** The switches that adjust bias and equalization for different tape types don't do an absolutely *perfect* job of matching the deck to whatever tape you're using. Individual tape formulations differ within each tape-type category, and so do their requirements.

It would be good, for that reason, to have a way of optimizing tape decks for each tape used—and tape-deck manufacturers now offer several such systems. The oldest and simplest of these tape-adjustment systems is a simple bias fine-adjustment knob, which varies the recording bias just enough to match virtually any tape of the type the switches are set for. Although it is possible to "tune" such knobs by ear, listening for the best compromise between noise, distortion, and frequency range, it is better to do

it using some sort of test signal to guide you. Several new tape decks provide test-tone oscillators whose output(s), when taped, can be read on the deck's own meter(s) or on a simple LED indicator.

As soon as there were indicators available to keep the user from grossly misadjusting the deck, manufacturers got a bit more daring and added "trim" adjustments for recording calibration (the signal level fed to the tape for "0" meter reading) and, in a few decks, *recording* equalization. *Playback* equalization is standardized for both "normal" and "high-bias" tapes; variable recording EQ merely tailors the signal fed onto the tape so that it will play back "flat" with a standard playback EQ.

The ultimate, of course, is to have the

deck itself make all these adjustments for you automatically during a preliminary test run with a given tape. And a growing number of decks will do just that—at a cost commensurate with such luxury. Short of that ideal, a two- or three-position bias switch will bring a deck very close to optimum performance with the majority of quality cassettes, even if it doesn't put them precisely "on the money." If you standardize on one tape, you may find that your hi-fi dealer's service department can adjust your deck (or at least its bias current) to match that tape precisely. The adjustment can be made when you buy your deck, but it should be rechecked periodically—settings *can* drift. And the adjustment should be rechecked and readjusted, of course, if you change tape brands. Your ears should be able to tell when readjustment is needed.

● **Two heads versus three.** A greater and greater number of cassette decks, especially in the upper price ranges, are "three-head" models with electrically separate erase, record, and playback heads. Some three-head decks may appear to have only two heads because the recording and playback heads

You're looking at four new machines that have more in common with data recorders than audio recorders. Together they are called the X-Series. And they bring a totally new kind of technology to the open reel format.

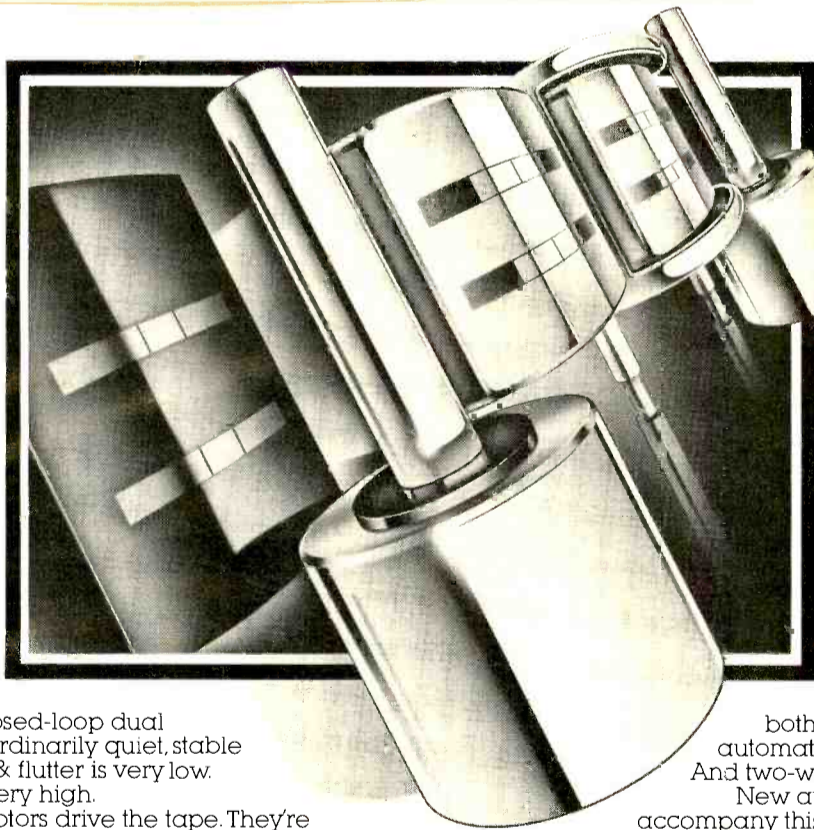
Each X-Series transport is an instrumentation mechanism. For 15 years, this TEAC design has stood the grueling test of time in computer installations where dependability is worth millions.

The basic configuration is closed-loop dual capstan. It's extraordinarily quiet, stable and precise. Wow & flutter is very low. Speed accuracy very high.

Three DC motors drive the tape. They're used to keep changes in motor temperature to a minimum under different loads so constant torque is maintained.

Our Magnefloat flywheel assembly, a completely new concept, uses magnetics rather than mechanics to eliminate problem-causing springs and pressure plates. Axial variations between the tape and capstans are prevented so proper tracking is assured. The result is highly accurate audio reproduction even after years of hard use.

The X-Series transport maintains ideal tape-to-head contact. Audible drop-outs, level and frequency losses are absolutely minimized. Frequency response is wide and flat. And signal articulation is unusually clear.



The brain behind the transport is our LSI control chip. It eliminates the need for mechanical relays so transport control is faster, more positive and reliable. The LSI also lets us provide full motion-sensing in the X-10 and X-10R.

Within the X-Series, machines have been specifically designed for bi-directional record and playback. Perfectly symmetrical head stacks (6 heads in all) assure top performance in

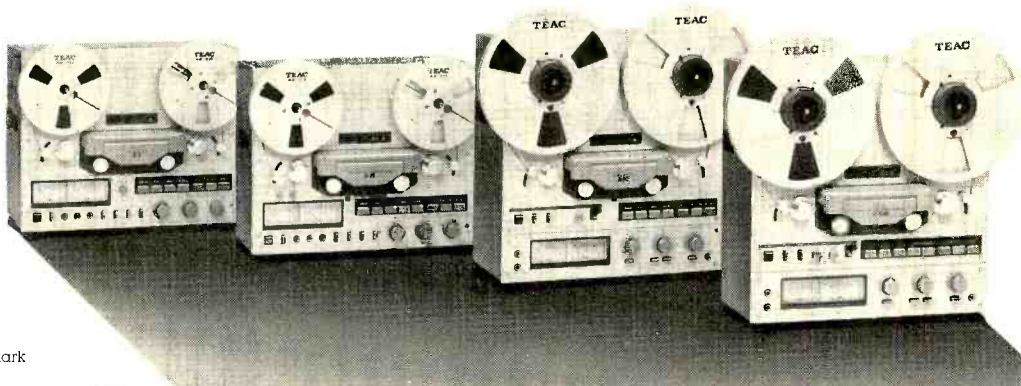
both directions. There's automatic reverse and repeat. And two-way cue monitoring.

New audio electronics accompany this new transport technology. Record and playback amplifiers are quieter and completely free of audible distortion. The sound is cleaner, more faithful to the source. The fidelity is unsurpassed.

An option previously available only on our professional recorders can now be added to any X-Series machine. Called dbx I*, this noise elimination system adds 30dB to the already high S/N and over 10dB of headroom to give you master-quality recordings.

If your audio perception is critical, your listening standards high, audition an X-Series recorder. The performance is flawless. The sound peerless.

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CASSETTE DECK FOREGROUND...

The dual-capstan design is often used in auto-reverse decks (which also begin to make their appearance in this price range); these play tapes in both directions without your having to flip the cassette over to play the other pair of tracks. (Some dual-capstan auto-reverse decks, however, use the second capstan only to pull the tape in reverse mode, rather than using both capstans at once as described above.) Auto-reversing decks use four-channel playback or record/play heads, the second pair of head gaps scanning the top pair of tracks during reverse play. The few auto-reverse decks that will *record* as well as play in both directions will be found in higher price brackets.

Other useful features appearing on more and more cassette decks at the upper end of the \$400 price range are microprocessor-controlled clocks, timers, and tape-search functions. Cassette decks with microprocessor controls can be programmed to start and stop automatically and to seek out any selection on a tape. The more expensive models can even play these selected sequences in any pre-arranged order.

Also to be found in this price range are "three-head" decks, so called because their record, playback, and erase heads are electrically independent (though the record and playback heads are frequently "sandwiched" into a single housing). There are two advantages

CASSETTE DECK BACKGROUND...

are made to share a common housing. That's done for a couple of reasons: first, because the cassette shell has only a few openings into which separate heads can fit (the pressure pad is built into only the center opening), and second, because the tape can skew between physically separate recording and playback heads, causing high-frequency losses.

A three-head system has two advantages over a two-head system (which has an erase head and a head that serves alternately for both recording and playback). First, and most important, separate heads can have

CASSETTE DECK FOREGROUND...

Some meter movements are switchable from an average VU setting to a peak-reading mode. And one manufacturer puts two scales and pointers in the same meter—one for peak and the other for standard VU indications—with separately selectable peak-hold functions. All the new decks in this price range can record on metal tape. And at least one takes special advantage of that tape's wide frequency range by providing the option of recording at 15/16 ips, *half* the normal cassette speed, thus providing 90 minutes per side of high-quality performance without resort to fragile C-180 tapes.

Decision Time

In case you haven't quite gotten the picture by now, there is an abundance of cassette-deck features that are useful and important, and others that are just plain fun. Many of them, accompanied as they are by enhanced specifications, don't come cheap. Matching what you need, or what you would like to have, against what you can afford may not be easy.

One method that may be helpful is to check out, as best you can, the *top-of-the-line* models even though you may not at the moment be able to afford them. You can't really know which of those exotic features you can't live

CASSETTE DECK BACKGROUND...

some sort of hold-back tension on the supply hub. In fast-forward or rewind, the transport must release the pinch-roller so the tape can move freely and apply a faster rotational drive to the take-up or supply hub.

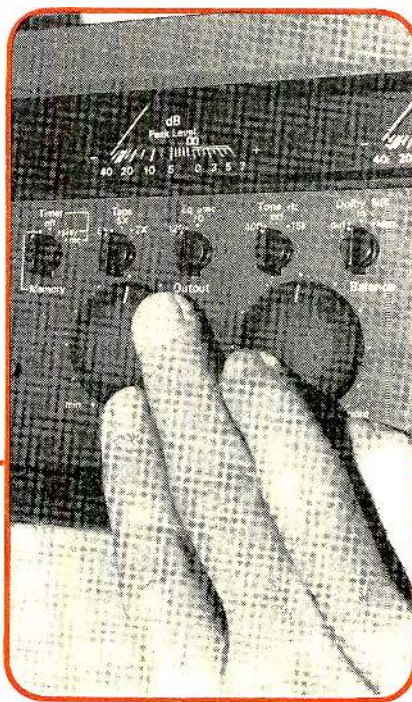
The most critical part of the transport's job is to maintain speed stability, especially to avoid short-term, cyclical speed variations—wow and flutter. Wow and flutter specifications vary from about 0.03 to 0.2 per cent for current cassette decks (open-reel decks vary between about 0.02 and 0.2 per cent).

Wow and flutter specifications will also be affected by the tension of the tape itself across the tape heads. On most cassette decks, the tape tension is maintained by the resistance of the tape-feed reel; that is, the tape is usually pulling against the slip clutch in the supply reel. Since cassette tape is tissue-paper thin, controlling tape tension is obviously important. One way to do this,

to this: with an independent playback head, you can monitor directly from the tape and check quality while the recording is being made. And heads designed to handle only recording or playback can be optimized to do that one job better than a compromise combination head can. For best performance, the head gap should be wide on a recording head and narrow on a playback one.

The ability to monitor the tape is more important in decks at this price range because many of them permit slightly greater control over quality through bias fine-adjustment knobs. Listening as you record and using the monitor/source switch to compare the recorded signal to the input signal will let you know quickly whether the bias is set right.

Another feature designed to meet the needs of serious recordists is the indi-



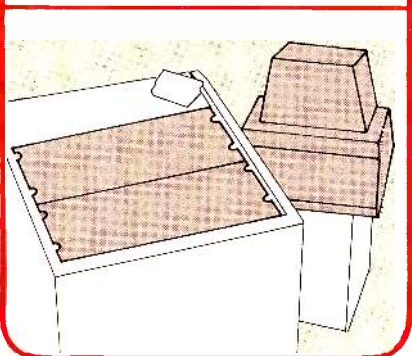
If you listen to the monitor output, comparing it with the signal you're feeding to the tape, your ears will tell you if you have noise, overload, or frequency response problems *while there's still time to correct them*. Without monitoring, you'd have to wait until the recording was done, then rewind and listen, or make some test recordings first. When dubbing, listening in the

without until you've actually seen them in action. After seeing—and hearing—what the very best can do, you'll be in a better position to say which features or performance levels are on your "must-have" list—the danger being, of course, that having seen the very best, you'll never be completely satisfied with less.

Living within your budget may not be merely a matter of forgoing some frills and features, but of compromising somewhat on performance as well. Manufacturers upgrade both as they go up the price scale, and some features (such as independent playback and recording heads) carry performance advantages too. Within a given price range, however, you may find that one manufacturer is offering more features while another offers a bit more per-

THIS MONTH'S COVER

THE Eumig FL-1000 cassette deck/Pet personal computer combination shown on the cover exemplifies the versatility possible with products containing today's microelectronics. For example, you can use the computer power of each of the three units' microprocessors to create and display a cassette-stored catalog of your record, tape, or book collections. The tape-deck/computer system will also perform automatic program selection, cueing, playing, replaying, and recording. With one computer, you can control as many as a couple of dozen FL-1000s.



a method adapted from open-reel practice, is to use dual capstans.

A dual-capstan cassette deck (one can seldom be had for less than \$500) is designed so that the capstan in the normal position is pulling at a slightly faster rate than the capstan near the feed hub. Both capstans are usually driven by one motor.

● **About motors.** Additional motors will effectively increase the reliability of your cassette deck. The capstan drive motor is probably the single most important item in the tape-transport mechanism, and it is frequently overworked in less expensive tape decks, for it must not only drive the capstan, but must also move the take-up-reel hub.

vidually controlled line and microphone inputs found on some decks. These make it possible to mix live sound from the microphones with music coming from other hi-fi components so as to make effective "voice-over" tapes.

● **Over \$500.** In this price class, many decks offer elaborate tape-matching adjustment systems. The record bias adjustment is joined by adjustments for optimum recording level, and these are often accompanied by built-in oscillators (to provide the necessary test tones) and by built-in indicators (either separate or as extra functions of the recording-level meter) to show when they have been set correctly. Many decks also switch between "normal" and "CrO₂-type" tapes automatically by sensing special notches found in the housings of most CrO₂-type tapes.

Many models also feature a "peak-hold" function on their fluorescent or LED meters. The peak-reading meters will indicate the highest peak obtained within some short period of time. The meter is actually presenting the highest recent peak as well as the current peak and the general drift of the recording level.

With so much attention currently focused on LED and fluorescent bargraph displays, it's easy to overlook some of the very useful features of *conventional* meter movements. Some of them (in this price range, at least) are calibrated to register audio signals across a range extending from -40 to +6 or +8 dB. (Continued on page 66)

Dolby-encoded tape it will sound the same as during normal playback.

A few *four-head* decks also exist. The fourth head facilitates recording in both directions. It is an additional erase head that encounters the tape before the record head when recording in the reverse direction.

● **The mechanical transport.** A tape deck is half electronic, half mechanical; tape heads, too, are a little bit of both. The mechanical half of the deck is, of course, the tape transport. Its purpose is to move the tape smoothly across the heads, a job that—on the surface, at least—seems deceptively simple.

Consider how the transport works. The tape's speed is basically controlled by a metal canstan that turns at a constant

formance. *Listening* to the decks can help you decide how much the performance difference means to you; *playing* with them will help you determine which features you really "need."

It is good to remind yourself from time to time that you can buy a high-quality cassette deck with wide frequency response, good signal-to-noise ratio, Dolby noise reduction, a d.c. servo-controlled capstan motor, a stable mechanically operated transport, two heads, a two-position selector switch for bias, and EQ and VU meters with separate LED peak indicators for \$250 to \$300. Additional features beyond those will cost you more, though not necessarily in the \$100 increments into which we've divided this survey.

When you find yourself zeroing in on two or three favored models, try whenever possible to make live vs. recorded comparisons. With a two-head deck, you need first to record a section of a disc; then rewind the tape and compare its sound with the sound of the original by using the tape-monitor switch on the amplifier. *No* recording will match the original exactly, but on the better machines it will come *very* close. Be sure to keep the recording level below zero on peaks when making a test recording.

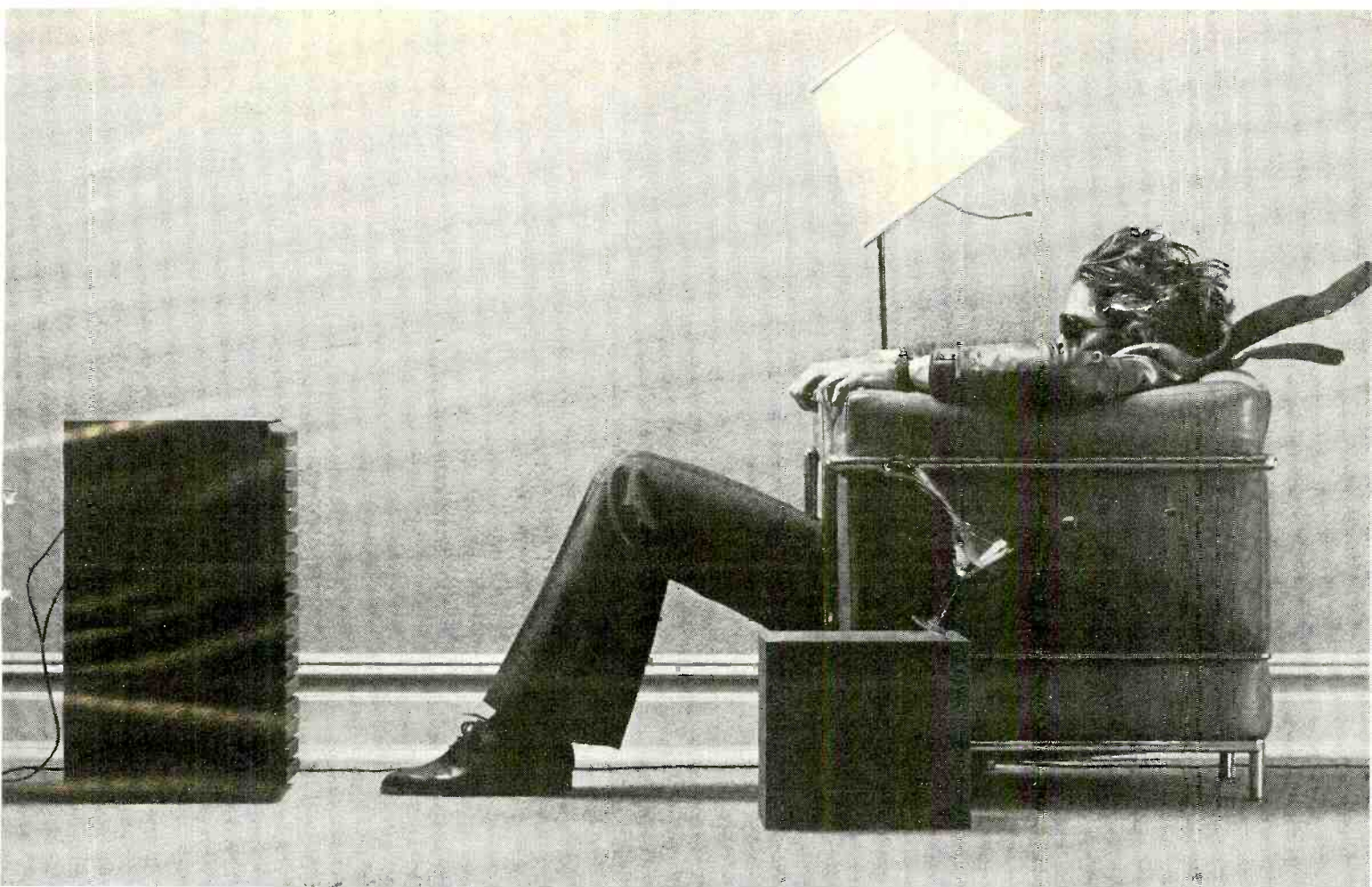
KEEP in mind that the prices mentioned in this article are manufacturer's list prices. Many items are already discounted, and others might be discontinued (and therefore reduced in price—if still available) by the time you reach the store. □

With all its belts and pulleys and gears, this mechanism can become fairly cumbersome, opening the way for slippages and speed inaccuracies.

In cassette decks costing over \$500, two and sometimes three motors handle the transport functions. One tightly regulated motor will turn the capstan while another drives the take-up or feed-reel hubs. The advantage of this "dedicated" function design is that it not only simplifies the transport mechanism, but increases the life of the motors as well. Beyond this increased longevity, a multi-motor design has the additional useful feature of shorter fast-wind and rewind times. Since the intermediate mechanisms between capstan and tape hubs are simplified, the motors drive the tape hubs more directly, providing a rewind or fast-forward time of 60 to 90 seconds for C-60 cassettes. □

Steve Ohr, components editor of Electronic Design, has taught courses on audio systems at the New School in New York City and occasionally writes on audio topics.

AFTER 500 PLAYS OUR HIGH FIDELITY TAPE STILL DELIVERS HIGH FIDELITY.



If your old favorites don't sound as good as they used to, the problem could be your recording tape.

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

What can happen is, the oxide particles that are bound onto tape loosen and fall off, taking some of your music with them.

At Maxell, we've developed a binding process that helps to prevent this. When oxide particles are bound onto our tape, they stay put. And so does your music.

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

maxell
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CIRCLE NO. 29 ON READER SERVICE CARD

RECORDING tape and the machines that use it have evolved at a rate unmatched by any other component in our audio systems. The resulting expansion of capability, versatility, and features in a profusion of new products (particularly in the cassette area) has created a parallel expansion in the vocabulary used in component advertising, in test reports, and in technical articles.

For the ordinary consumer, this often bewildering thicket of new terms has further complicated the already challenging task of shopping, with the result that he needs buying guidance more than ever. Since knowing the lingo is at least half the battle, we have prepared the definitions in the basic tape-recording vocabulary that follows as much as possible in layman's language. We've tried to make reading the definitions as interesting and painless as possible, so there's also a good deal of hi-fi trivia included (do *you* know what Sendust is made of?). To save space, references to other defined terms are printed in *italics* within the definitions.

Alignment—The geometrical relationship between *head gap*, tape guides, and tape. The most important alignment is azimuth alignment, which requires that the head gap be perfectly perpendicular to the direction of tape travel. Aspects of performance which depend on azimuth alignment include high-frequency response, phase response, and compatibility with tapes recorded on other machines. All heads in a recorder must be aligned, especially the record and play heads in *three-head* machines. Some three-head cassette decks have their record and play heads installed side by side in the same housing, thus reducing the alignment problem (see p. 70).

ANRS—A complementary *noise-reduction system*, developed by JVC, which operates on low-level high-frequency signals as a *Dolby B* circuit does. There is some compatibility between ANRS and Dolby B. Super ANRS, in addition to the actions of an ANRS circuit, compresses high-level high-frequency signals during recording and expands them during playback to increase high-frequency *dynamic range* and decrease high-frequency distortion.

Back coated—Some tapes have the back side of the plastic base material (the side opposite the magnetically coated side) covered with a conductive compound. The surface texture of the compound improves the tape's traction through the recorder.

Bias—A large ultrasonic signal of constant frequency and level sent to the record head along with the audio signal. The bias signal is applied to the tape to reduce noise and distortion which would otherwise be generated by the recording process. The correct bias level is crucial to obtaining best performance with a given tape formulation: too high a bias level gives a rolled-off high-frequency response, and too little bias reduces the *signal-to-noise ratio* and increases distortion.

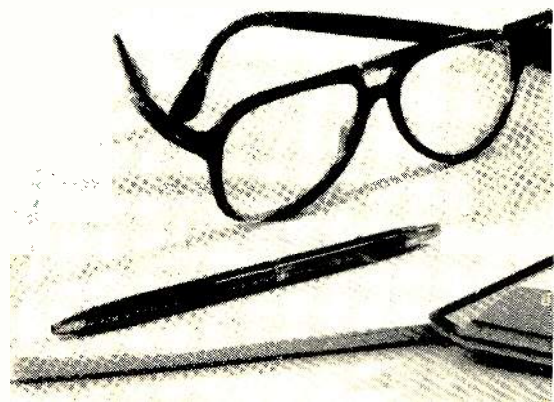
Capstan—The driven spindle or shaft in a recorder which rotates against the tape. In conjunction with the pinch-roller, it pulls the tape through the machine at constant speed. The capstan's rotational speed and diameter determine tape speed. Some advanced professional machines do not use a pinch-roller but instead use only a large-diameter, servo-controlled capstan and reel drive.

Chromium dioxide (chrome, CrO₂, Crolyn)—A high-*coercivity* magnetic material, particles of which are used in magnetic

A BASIC VOCABULARY OF TAPE RECORDING

to make your shopping
just a little easier

By David Ranada



tape. The high coercivity of chromium dioxide permits greater high-frequency output at slow tape speeds than that possible with "standard" ferric tapes. Chrome tapes are *not* more abrasive than other types and do *not* wear down heads faster than other tapes.

Closed-loop drive—A tape-transport system which drives both incoming and outgoing tape in order to control the portion of the tape contacting the heads and isolate it from the reels or cassette hubs. There are several closed-loop geometries regularly used with open-reel recorders, but *dual-capstan* drive is the most popular for both open-reel and cassette tapes.

Cobalt doped—Tape utilizing a combination of "standard" gamma ferric oxide and cobalt as the magnetically active portion of the coating in order to improve *maximum output level* at low and high frequencies.

Coercivity—The magnetic field, measured in oersteds (Oe), required to reduce the magnetization of a *saturated* material to zero. Coercivity is proportional to the high-frequency capabilities of a tape as well as of the recording, *bias*, and erase levels that it requires.

Companer—A type of *noise-reduction system* that compresses all or part of a signal during recording and expands it in a complementary way during playback. In general, such companders as *ANRS*, *dbx*, and *Dolby B* must be used during both recording and playback, otherwise the signal may be unlistenable or at least have boosted highs. Anomalies in the record-playback process (involving frequency-response irregularities or level changes) will cause

some sort of mistracking between the input and the output halves of the companding process. The effects of this may or may not be audible.

dbx—Refers either to a series of *dynamic-range* enhancement devices, or to a complementary *companer* system, developed by dbx Inc. The companding system translates every 2-dB change in the overall input signal level to a 1-dB change fed to the recorder. During playback, the reverse process takes place: every 1-dB change is retranslated to a 2-dB change at the dbx output. The dbx system can provide up to 30 dB of noise reduction over the entire audio band.

Decibel (dB)—A ratio of quantities expressed in logarithmic terms. The number of decibels between voltage A and voltage B is twenty times the logarithm of A divided by B.

DIN (Deutsche Industrie Normenausschuss)—A set of standards and specifications promulgated by German manufacturers and covering such audio-related matters as connectors, frequency weighting, measurement techniques, and specifications. Similar to the ASA (American Standards Association).

Dolby B—A complementary *noise-reduction system* designed to reduce tape (and FM) hiss. A Dolby-B circuit boosts low-level high-frequency signals during recording and reduces them, along with the tape's added noise, in a complementary fashion during playback. Noise can be reduced up to 10 dB above 5 kHz with the Dolby-B sys-

tem. It is now in virtually universal use in cassette decks.

Drop-out—A momentary drop in signal level caused by a loss of the required close tape-to-head contact. Drop-out problems can be minimized by choosing a high-quality tape, cleaning the recorder regularly, and protecting the tape and recorder from mishandling, dust, dirt, and fingerprints.

Dual capstan—A tape-drive system in which the tape is pulled by two capstan/pinch-roller combinations, one on either side of the head assembly. This form of tape drive isolates the movement and tension of the tape over the heads from any motion irregularities at the *feed* or take-up reels.

Dynamic range—In a recording system, the range in decibels (dB) between the maximum undistorted output level and the noise level. Just how distorted the "undistorted output level" depends on whose spec sheet is being read, and the interpretation of "maximum" output can range from the *maximum operating level* to *saturation*. Dynamic range varies with frequency. The dynamic range of a program is the range through which its volume changes. See *noise, weighting, decibel*.

Equalization (EQ)—The process of selective amplification or attenuation of certain frequencies or frequency bands in a recording system so as to give a flat overall frequency response, minimize noise, or create a special effect. Equalization is performed in tape re-



TAPE TERMS...

orders for the first two reasons. The better cassette recorders provide a choice of equalization in order to obtain the best performance from various tape formulations. Cassette playback equalizations (70-microsecond "chrome" and 120-microsecond "ferric"), along with open-reel playback EQs (NAB, CCIR), have been standardized to assure intermachine compability of recordings.

Feed reel—The reel (or cassette hub) from which tape is drawn during recording or playback. Also known as the supply reel.

Ferric—The original tape formulation, available today in many variations, based on magnetic particles of gamma ferric oxide ($\gamma \text{Fe}_2\text{O}_3$). See *cobalt doped*.

Ferrichrome—A tape formulation with a layer of "ferric" particles beneath a thin layer of *chromium-dioxide* particles. Benefits claimed for this tape include increased low- and high-frequency *headroom* over standard chromium-dioxide formulations.

Ferrite—A family of nonmetallic, ceramic-like materials usually made from ferric oxide in combination with other oxides. The magnetic properties of ferrites and their exceptional hardness make them suitable for magnetic heads.

Frequency response—An indication of a recorder's ability to reproduce all the audio frequencies supplied to it without altering the original balance among them. A perfect frequency response would extend at least from 20 to 20,000 Hz (the traditional and numerically convenient limits to human hearing) with a ± 0 -dB deviation. The record-playback frequency response of a tape recorder varies with the recording level: as the overall recording level increases, high-frequency response decreases. When comparing record-play specifications make sure that the recording levels are equal.

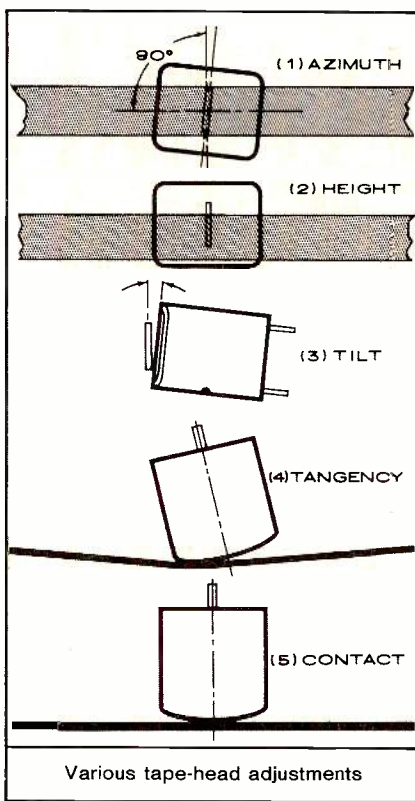
Harmonic distortion—Distortion in which spurious harmonics (arithmetic multiples) of the original input frequencies appear at the output. Usually expressed as a percentage of the output signal and abbreviated HD or THD (total harmonic distortion). Harmonic distortion in tape recorders varies with *bias* and overall recording levels.

Head—A generally broken-ring-shaped electromagnet over which the tape is drawn. A head can: (a) erase a previous recording by producing a large, rapidly alternating magnetic field; (b) make a recording by converting an electrical signal to a varying magnetic field which is picked up and retained by the tape; or (c) playback a recording by sensing the varying magnetic patterns on a tape and converting them to electrical signals. The break in the "ring" of a head is called the gap, the length and width of which help determine the fre-

quency response and noise of the playback system.

Headroom—The range between a reference recording level and the *maximum output level* available at a specific frequency or band of frequencies. See *noise*, *weighting*, *dynamic range*, *signal-to-noise ratio*.

Flutter—Rapid, periodic variations in tape speed causing rapid changes in pitch and volume. Flutter and *wow* are sometimes specified in mutually un-comparable ways by different manufacturers. Differences in wow and flutter measurement methods (peak versus *rms* versus average) and frequency *weighting* should be noted. In its test reports, Hirsch-Houck Labs uses both a weighted-rms method popular in Japan and a *DIN* peak-weighted method.



Hiss—The most noticeable form of tape noise. The human ear is most sensitive to noise in the 2,000- to 8,000-Hz range—which is heard as hiss. In fact, it is this region of frequencies that gives wideband "white" noise (which contains all audible frequencies) its "hissy" quality.

Light-emitting diode (LED)—An electronic device which converts a current directly and instantaneously into light. This property makes the LED suitable for peak-reading or peak-indicating audio displays. At present only red, yellow, and green lights are commercially available.

Liquid-crystal display (LCD)—An alphanumeric display that uses liquid crystals which interact with an external source of polarized light. Originally used in watches, they are

now found in calculators and various hi-fi readouts. LCDs require very little power, but the earlier types had very slow response and were temperature sensitive.

Logic controlled—A tape *transport* with its functions switched by digital-logic circuitry activated by front-panel switches or a remote control. Logic control theoretically does not permit an improper or potentially damaging series of commands to be executed by a tape deck, and it is likely to be found only in *solenoid*-operated machines.

Maximum operating level* or maximum recording level (MRL)—The magnetization level of a tape which results in a specified level of distortion. The MRL varies with the applied *bias* level and frequency: as the MRL at 1,000 Hz rises, the MRL at 10,000 Hz falls.

Maximum output level (MOL)*—The playback level produced by a tape after it has been saturated with a signal (typically 333 Hz). At other frequencies maximum output level is the point at which an increase in the recording level produces a decrease in the playback level (a result of a phenomenon known as self-erasure).

Metal tape—Tape in which the magnetically active portion of the coating is made up of particles of iron as opposed to particles of ferric oxide or chromium dioxide. Metal-particle tape has very high *coercivity* and *retentivity*, leading to improved high-frequency performance. Special circuitry and heads are needed to record on metal tape. (See Julian Hirsch's "Technical Talk" column this month.)

Multiplex (MPX) filter—A filter designed to reduce or remove the 19-kHz stereo pilot tone present in all stereo FM broadcasts. This pilot tone, usually filtered out by tuners and receivers, must be removed when using a *Dolby B* circuit to record a stereo FM broadcast, for the *Dolby* circuit will otherwise mistake the tone for a high-frequency audio signal, leading to improper performance. Most good tuners and receivers have adequate 19-kHz filtering built in. For those that don't, the use of the MPX filter on the cassette deck is necessary for successful taping off the air.

Noise—Unwanted electrical signals of a mathematically random nature. There are many types of noise in tape recording, most of which sound like hiss. Noise is added to a tape when it passes through the *bias* and erase fields of the recorder and by the signal itself during the recording process (modulation noise). Tape noise can be minimized by the choice of tape, careful setting of bias and recording levels, regular cleaning and demagnetizing, and use of a . . .

Noise-reduction system—An electronic circuit that attempts to achieve a reduction of noise level without changes in musical con-

(Continued on page 72)

* Some authorities use the abbreviation MOL to refer to maximum *operating* level; others use the same abbreviation to refer to the maximum *output* level.

More recorders ask for Fuji by name than any other brand.

Recorders are very outspoken in their preference of tapes.

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Then comes new Fuji Metal Tape. Cassette recorders equipped for metal are all in love with it. Not just because it won't clog heads or jam. But because of its inaudible noise. Greatly expanded dynamic-range. And smooth, ultra-wide response.

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TAPE TERMS...

tent. There are two basic types of noise-reduction systems: *companders* (complementary record-playback systems) and single-ended (playback only) systems. A compander is used for noise reduction during the record-playback cycle, while a single-ended system is used for removing noise from already recorded material.

Pressure pad—A small, feltlike pad designed to press the tape into intimate contact with a head. Although few modern open-reel machines have them, a pressure pad is built into every tape cassette, where it helps maintain high-frequency response. Pressure pads in open-reel machines should be kept clean and should be replaced when worn.

Print-through—The undesired transfer of recorded signals from one layer of tape to adjacent layers. At worst, print-through will cause distinct pre- and post-echoes. Print-through depends on a tape's thickness and its magnetic properties, on the recording level, and on tape-storage conditions. To minimize print-through, use as thick a tape as possible, be conservative with recording levels, and store the recording in a played, "tails-out" condition under stable temperature and humidity conditions.

Retentivity—The maximum possible magnetization that will remain after *saturation* of a magnetic material. Maximum low-frequency output level is directly proportional to retentivity. Measured in gauss (Gs).

rms (root-mean-square)—A method of mathematically averaging an a.c. signal such as audio. As used in *wow*, *flutter*, *noise*, and amplifier power measurements, rms relates to the energy of the signal. An rms-reading meter will respond to a transient faster than an average-reading meter but slower than a peak-reading meter.

Saturation—Magnetic overload. In effect, a saturated material has been magnetized "as far as it can go," and no increase of magnetizing force will produce an increase in the material's magnetic intensity. In analog audio recording, both heads and tape may saturate when handling high recording levels, with very high distortion resulting.

Scrape flutter—Vibration in a tautly stretched tape caused by the tape's friction against heads, pressure pads, tape guides, and other objects. Scrape flutter has audible characteristics similar to those of modulation *noise*: both impart a harsh quality to the sound. Many recorders have scrape-flutter "filters"; these usually consist of no more than a small roller touching the tape and damping the vibrations.

Sendust—An alloy of iron, aluminum, and silicon. Its great hardness and special magnetic properties make it especially suitable as a material for tape heads.

Servo controlled—A method of regulating *capstan* speed and/or reel tension. As the capstan rotates, it generates a voltage or frequency proportional to its speed. The voltage or frequency is compared with a reference voltage or frequency and the difference is used to shift the motor speed up or down. When the capstan-generated voltage or frequency matches the reference, the difference signal goes to zero and the motor speed is stabilized. The whole comparison-with-a-reference process is called a servo loop.

Signal-to-noise ratio (S/N, SNR)—The ratio, expressed in decibels, between (1) a signal at a specified reference frequency and output level and (2) the output *noise*. The signal-to-noise ratio varies with frequency and is subject to innumerable mutually incompatible methods of measurement. See *noise*, *weighting*, *dynamic range*, *headroom*, *decibel*.

Solenoid—An electromagnet with a movable core. When the coil is energized, the core moves, providing a mechanical action that is used to control a tape *transport*.

Source/tape monitoring—A feature on some tape recorders that permits listening to and switching between the signal being fed to the recorder and the signal just recorded on the tape (as provided by the playback-head amplifiers). Source/tape monitoring is possible only with *three-head* tape machines.

Three head—A recorder with separate erase, record, and play heads, as opposed to a two-head deck in which both the record and play functions are performed by a single record/play head. A properly designed three-head machine can have its record and play heads optimized for their individual duties. (In some cassette decks both heads are in a single housing.) In particular, playback frequency response is improved by the narrower gap possible in a play-only head (a record head requires a wider gap). A three-head recorder also offers the advantage of *source/tape monitoring*. See *head*, *alignment*.

Three-motor transport—A transport similar to a *two-motor transport* but having a separate motor for each reel or hub. This makes for a simpler mechanical design and permits better control of tape tension. See *closed-loop*, *dual-capstan*.

Transport—The mechanical portion of a tape recorder responsible for moving the tape across the heads with no variation in speed or alignment. Transport controls such as rewind, play, and fast forward are either mechanical or electronic ("logic controlled," "feather touch"). In general, the savings in cost possible with a mechanically controlled transport are outweighed by the simpler mechanical design and higher reliability of one that is electronically or *sole-noid* controlled.

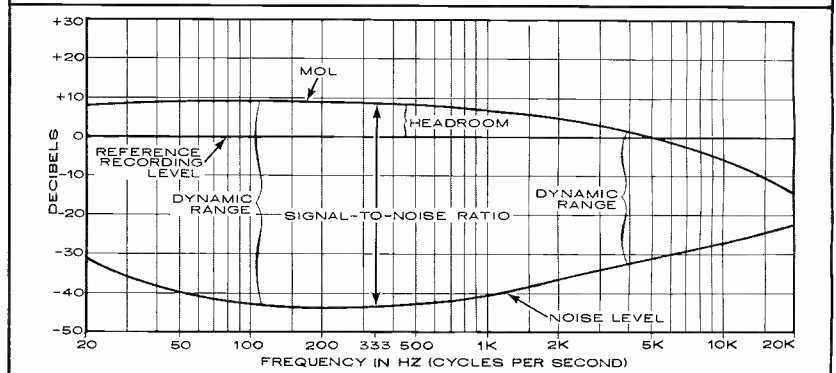
Two-motor transport—A transport in which one motor drives the *capstan(s)* and another drives the *feed* and take-up reels. This arrangement is often used in cassette decks.

VU meter—A meter used to display audio signal levels in decibels relative to a fixed 0-dB reference level. A "true" VU meter, rarely found in consumer audio equipment, has standardized ballistic (mechanical) and electrical characteristics that allow professionals to judge signal levels regardless of the associated equipment. See *decibel*.

Weighting—The assignment of relative importance to certain measurement figures so as to take into account the ears' varying sensitivity with frequency, loudness, and energy distribution. For example, "A-weighting," commonly used in *signal-to-noise* measurements, gives less prominence to low frequencies because of the ears' low sensitivity to low-frequency noise.

Wow—A slow, periodic variation of tape speed resulting in slow changes of playback pitch. Wow can originate in the *transport* or from tape-related causes: uneven tension in the reels or hubs, friction against the reels or cassette shell, and low-quality, poorly manufactured, or damaged tape. Fast wow is called *flutter*. □

Chart shows the dynamic range of a typical cassette recorder without noise reduction. Signal-to-noise ratio is the span between the upper curve and a weighted average of the lower curve at a specified frequency, here 333 Hz.



We don't like to brag. But with the new ADC Integra Series: Integra XLM-III, Integra XLM-II and Integra XLM-I, it's hard to resist.

Let's start with basic design. That's what our engineers did. Though what they finished up with is far from basic.

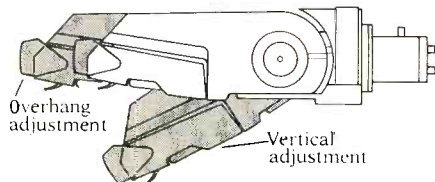
The new ADC Integra is the first all carbon-fibre integrated headshell/cartridge designed to minimize tracking angle distortion two ways.

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As your tonearm "sweeps" a record, the angle the stylus makes with the record groove constantly changes. The result is offset angle error.

Is it serious? An error as little as 2° can more than double cartridge distortion! That's serious! And that's why the new ADC Integra

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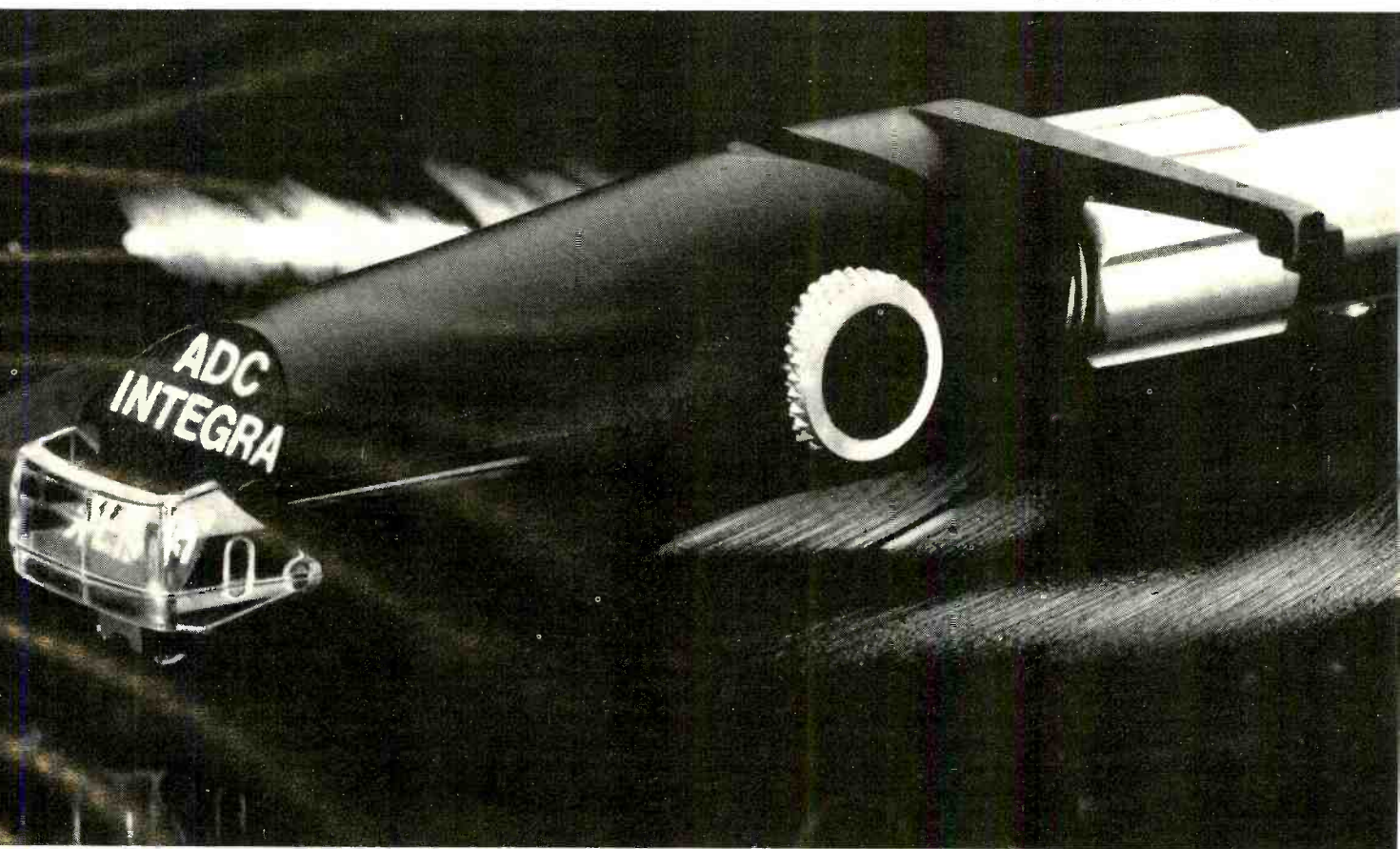
ADC Integra. Its vertical tracking angle is adjustable. In calibrated degree increments from -8° to +8°. Enough to compensate for all bayonet-type tonearm heights. Including changers.

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CIRCLE NO. 4 ON READER SERVICE CARD

A LOT OF PEOPLE TALK ABOUT TRACKING ANGLE DISTORTION. THE NEW INTEGRA DOES SOMETHING ABOUT IT.



ADC
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CASSETTE TAPE

A few simple at-home tests can help you choose the best tape type and brand for your machine

A CASSETTE tape can be considered a component like any other part of your system, and it pays to choose one with as much care and consideration as you would devote to selecting a phono cartridge, a speaker, or any piece of electronic gear. In fact, when you consider that you can easily invest as much—or more—in blank cassettes over the years as you do in a good amplifier or receiver, care in choosing a tape that will bring out the best in your equipment is only common sense. The selection process is most effective if it is done in two steps: first, narrow your choice down to the *type* of tape that best suits your intended use; second, discover which *brand(s)* of that type give you the best results.

The Right Type

On the face of it, it might seem that you would get better fidelity from the more expensive cassettes in a given manufacturer's line than from his less expensive ones. The matter is rather more complicated than that, however. For example, if you are recording speech, dubbing from discs with limited frequency range, or the like, there's no sense in paying the premium price that a super-fidelity tape commands. Most major manufacturers sell "low-noise" cassettes that handle such simple jobs almost as well as their most expensive tapes. The way to determine whether a tape is adequate for your purposes is first to make a test recording on it of the material you want to capture and then to repeat the test using a slightly more expensive tape. If there's no audible difference between the two when played back on your equipment, the less-expensive tape is the one to buy for that particular recording job. More demanding program material will probably require a better tape, but be sure your machine is one that will bring out its advantages.

This doesn't mean that just *any* low-price tape will do, however. A manufacturer who has a valuable brand name to protect will make his economy cassettes as carefully as he does his premium

ones. That means a precisely milled and applied magnetic coating with a firm binder to hold the particles to a strong plastic base, precise tape slitting, and a carefully constructed cassette shell, the whole designed to minimize response variations, dropouts, weaving, stretching, or jamming.

For demanding applications, such as music with wide frequency and dynamic ranges, many audiophiles choose a high-bias premium tape. Such tapes require 70-microsecond (μsec) equalization and, of course, a high bias (both settings are marked "CrO₂" or "II" on many tape decks). They have extremely low noise and high output for wide dynamic range, plus a wider, flatter frequency response. There are many excellent low-bias premium tapes available as well. Using 120- μsec equalization and "normal" or "low-noise" bias settings, such tapes give results quite similar to those obtainable with high-bias tapes. (Note that signals recorded on high-bias tapes without proper bias and equalization are likely to be distorted and to have a peaked treble response.)

With those decks equipped to record on them properly, the new metal tapes deliver greatly improved high- and low-frequency response, more headroom at high frequencies, and a 7- to 12-dB wider dynamic range than typical premium tapes. All this results in greater freedom from overload as well as vanishingly low noise during quiet passages. These tapes can be *played back* on *any* tape deck with 70- μsec or "CrO₂" equalization, but attempting to record on them without the correct "metal" bias and equalization will result in extreme distortion and frequency-response problems.

How to Test

Tape formulations and tape decks vary widely, so the tape of a given type which sounds best on your neighbor's

machine may *not* work best for you unless you both have the same model tape deck (even then, there can be individual internal-adjustment differences). Therefore, finding the tape that provides the optimum match for critical recording on *your* deck means that you will have to make some simple tests. All you'll need to buy for these tests is a "cross-section" assortment of well-known tape brands and types. And don't feel that this is any waste of money: you will get at least *good* results from all of them. Getting the *best possible results*, however, is the purpose of your tests.

First, you'll want to test frequency response. The best quick test is to record interstation FM noise, for this signal contains all the audio frequencies (up to about 15,000 Hz or so) at once. For your test signal, turn your FM interstation-noise muting off and tune to the spot on the dial where the "hiss" is cleanest, with as few irregular noises as possible (it may help to disconnect your antenna). Switch your tuner or tape deck to "mono," or use a Y-connector between your system output and your tape deck's inputs, to make sure that both inputs receive exactly the same signal. Keep the volume through your speakers moderate and *don't* turn up the treble control (the noise signal's high-frequency energy at very high levels could burn out your tweeters).

Now switch your machine's Dolby circuits off and set its controls for the bias and equalization recommended for the tape you are about to test. The recording level should be set for exactly -20 dB as read on the machine's meters. Record a few minutes of interstation noise, and then leave a blank, unrecorded portion. Do this on each of the tapes you're testing, resetting bias and equalization as required each time. If you have a three-head deck with separate record and playback heads, you can compare the actual "live" FM noise and your recording of it by switching back and forth between the two with the source/tape monitor switch. If not, you'll have to rewind the tape and play it back to make the com-

By John Dale

GrandMaster II
AMPEX 90
 PROFESSIONAL STUDIO QUALITY High Bias 70 μ sec EQ

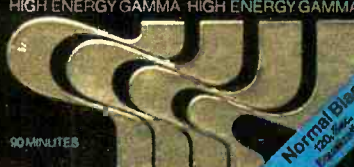


BASF
60
 professional III
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the music tape
 BY CAPITOL
90
 includes all 12 μ sec
 cassette - extra high output/low noise

certron HE90
 HIGH ENERGY GAMMA HIGH ENERGY GAMMA
 90 MINUTES
 Normal Bias
 70 μ sec EQ
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DAK INDUSTRIES INCORPORATED
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 NORMAL BIAS 120 μ sec EQ
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DOUBLE COATED TAPE
 Fe-Cr POSITION **DX5**
 WIDE DYNAMIC RANGE HIGH OUTPUT LOW DISTORTION
DENON 90

EMI CASSETTE
 HI-FIDELITY
C60



FUJI
 METAL TAPE
90
 PREMIUM CASSETTE METAL TAPE BIAS 70.5 EQ

ULTRA-DYNAMIC CASSETTE TAPE
UD 90ER
 HI OUTPUT HIGH ENERGY EXTENDED RANGE RECORDING TIME 30 MIN.
HITACHI
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262 IRISH 60
 EXTENDED RANGE CASSETTE
 LOW NOISE




C60 ULTIMATE FIDELITY
LUXMAN
XMH
 BIAS NORMAL POSITION EQUALIZATION 120 μ sec

maxell **UD XL II C90**
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 Hi-Level Bias
 70 μ sec EQ Jam Proof



MEMOREX 90
NEW
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CASSETTE TAPE

"... FM high-frequency noise can be a boon when it comes to selecting the best tape for your machine."

parison. Either way, make sure the "live" noise from the tuner and the playback of the noise recorded on the tape are carefully matched in loudness. Pay particular attention to the higher frequencies (the "hissy" part of the noise), because this is where the differences will be most apparent.

The greater the audible similarity between the tuner's FM noise and your recording of it, the wider and flatter the frequency response you're getting. As you make your comparisons between tapes, you will find that some tapes come much closer to the original sound than others. With these close matches, go back and forth a few times, listening carefully, until you're sure which tape sounds best on this test. (Again, differences will usually be most obvious in the highs.)

Next to be checked are the tapes' residual noise and dynamic range. This is done (rather roughly) by comparing noise levels on the *unrecorded* portions of each tape. Again, set the tape deck's output-level control so that the output levels on the *recorded* portions match the "live" FM-noise signal level. With the Dolby circuits off and all output levels the same, the noise levels on the

unrecorded portion will give some indication of the tape's relative dynamic range—the lower the noise, the wider its dynamic range. (It is not, of course, an *absolute* indication, for it takes into account only the tape's sensitivity and residual noise, not its maximum output level or possible machine noise.)

Frequency response and dynamic range are just part of the story, however, so it is also advisable to take the tapes that scored best on these first two tests and record wide-range music from discs on them. Distortion is most likely to show up in loud sounds, particularly those that are rich in high-frequency content: tambourines, cymbals, snare drums, and the like. The higher the level you can record without audible distortion, and the lower the noise, the wider the dynamic range.

Listen too for crisp, clear sound that lets you pick out individual instruments. Go back to your original disc and compare to be sure that both low and high notes are as prominent and as well-defined in your tape recording as they are in the original—but not *over*-prominent or strident. If your tape sounds "better" than the original program, it usually means that a high-frequency boost has somehow occurred. Make sure that this is not accompanied by distortion and noise.

Test Program Material

Your test material should naturally include the type of music you normally listen to, for your familiarity with it will help you to analyze what you are hearing. But it should also include other types of music, even if you don't listen

to them normally. Rock, for example, usually provides a better test of high-frequency headroom than classical music does, because of its greater high-frequency content. Classical music, however, with its combination of loud and soft passages, requires a greater dynamic range, and it more frequently includes truly *low* frequencies and strong low-bass transients (such as sudden organ chords, timpani attacks, and the like). The plucked strings of some acoustical instruments—guitars, for example—provide excellent tests of transient response too.

Records—especially the new direct-to-disc, digital, and other premium "audiophile" products—are probably the best source material you can find—if they're not worn or dirty. (*High-quality* FM broadcasts will also do in a pinch, but they are hard to find in most sections of the country.) A list of records suggested for test purposes is appended below.

THE FM interstation-noise test, which requires no test equipment other than your ears, has other uses too. Aside from its use in finding the best tape for your machine, it can also be employed to determine the best bias and other settings for any tape. It is almost comically paradoxical that high-frequency noise, the bane of tape recordists, can be a boon when it comes to selecting the best tape for your machine and optimizing its performance! □

John Dale, vice president and general manager of the Magnetic Tape Division of Fuji Photo Film U.S.A., Inc., has considerable experience with video as well as audio tape.

DISCS TO EVALUATE TAPES BY

HERE are some disc recordings sonically demanding enough to give your tape, deck, recording abilities, and ears a good workout when you dub them. The results should either show off the quality or show up any deficiencies of the tape you're using.

● **STRAVINSKY:** *The Firebird, Suite* (good feedback and rumble test). ● **BORODIN:** *Prince Igor, Overture* (check if the tape dub holds the overall balance at the end). ● **Polovtsian Dances** (listen for the sound of the player's breath going through the

flute at the beginning). Atlanta Symphony Orchestra and Chorus, Robert Shaw cond. TELARC ● DG-10039.

● **TCHAIKOVSKY:** *1812 Overture* (listen for triangles, cannon, cymbals, brushes on snare drum). ● **Ca-priccio Italien** (listen for triangles) Cincinnati Symphony Orchestra, Erich Kunzel cond. TELARC ● DG-10041.

● **MEL LEWIS:** *Naturally*. Mel Lewis and the Jazz Orchestra. TELARC ● DG-10044.

● **ROSIE O'GRADY'S GOOD TIME JAZZ BAND:** *Dixie* (listen for cymbals, brushes, and brass on side two, band one). DIRECT-DISK ● DD-103.

● **CREATION:** *Super Rock in the Highest Voltage* (good highs and

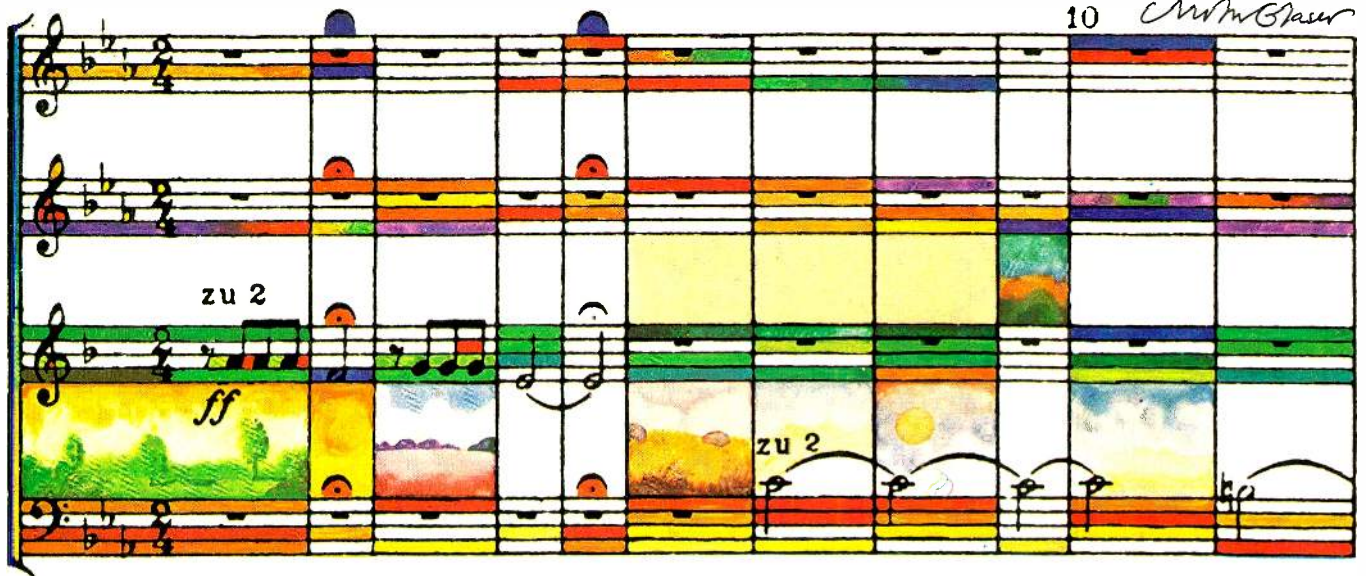
lows on side one, band two). TOSHIBA ● ELF-95016.

● **PAUL JACKSON:** *Black Octopus* (side one, band one—check bass in opening, highs at end of cut; side one, band two—bass in opening). Paul Jackson Jazz Band. EAST WORLD/TOSHIBA ● EWLF-98006.

● **FLATT AND SCRUGGS:** *Greatest Hits* (side two, band one—*Earl's Breakdown* has a wide range, good banjo highs). COLUMBIA CS 9370.

● **LARRY McNEELY:** *Confederation* (check the bass and violin in *Liza Jane*—side one, band one). SHEFFIELD LAB ● 9.

For more about audiophile discs, see "A Dozen Digital Demo Discs" in January 1980 STEREO REVIEW.



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Any way you look at it—or rather, listen to it, you'll find that Sony tape with Full Color Sound is nothing short of superb.

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A portrait of Alicia de Larrocha, a woman with dark hair, wearing a black lace top and a gold necklace. She is looking slightly to the right of the camera with a gentle smile. The background is dark and out of focus. The portrait is framed by a dark blue border with a scalloped edge.

Alicia de Larrocha

talks to William Livingstone

TOURISTS in Spain are sometimes disappointed to find that life in that country has practically nothing to do with the opera *Carmen*. Spaniards are generally serious, dignified people, and Spanish ladies do not go around carrying roses between their teeth. They are not without humor, but they tend to be somewhat reserved.

Seriousness, dignity, and reserve are among the most salient personality traits of the Spanish pianist Alicia de Larrocha. No matter how much temperament there may be in her playing, in her nonmusical dealings with the world she is simple and direct. Success, fame, and fortune rest lightly on her, and she refuses to play the role of international superstar or Great Lady of the Keyboard.

Throughout 1979, Miss De Larrocha celebrated her Golden Jubilee, the fiftieth anniversary of her public concert debut, which occurred when she was a small child. During the year she played in New York often, and on one of her visits I invited her to lunch to chat about events in her career and her plans for the future.

She quickly made it clear that she has no plans. "When asked to describe myself I usually say that I am 'a mess.' By that I mean that I am a mixture of a lot of things, with a little bit of everything thrown in. But I am a bizarre person in that I never make plans. I'm not ambitious, and I don't have set goals in life. I don't even like planning my own programs, and if I sit down to do it and propose something, I immediately think, 'Oh, I'm not going to feel like playing this piece on that day.' My husband and impresarios plan my programs, and if the decisions are made for me, then somehow or other I prepare the music and play it on the specified date. It terrifies me to look far into the future. I prefer to take life as it comes."

She had just returned to the United States after engagements in South America, and on the flight to New York from Buenos Aires the briefcase containing her music was lost. "The airline asked me to estimate the worth of the contents of the case," she said. "It is impossible to place a monetary value on such things. They are irreplaceable—*my* music—the Soler, for example, with all my ornaments. That represents a lifetime of work." The case has never been found, and by now she has probably charged it off as one of the penalties of a life of constant travel.

I asked whether she has never tired of so much traveling. "Up to now travel has not bothered me. Frankly, I like it. I like the activity, to be always going somewhere. I am a person who is never

satisfied. I always think that when I get to the next place, things will be better. For me it would be a nightmare to remain in the same place. And I am so moody that what pleases me today may seem intolerable tomorrow. For that reason, I am always ready to go. I am impulsive, you see. Everything I do is on impulse, and I like to react to situations spontaneously."

Is that reflected in her music? "Certainly. There are days when nothing seems to go right—when we say in Spanish that one has gotten out of bed on the left foot—and there are days when things do go right. I think the music is better if one can bring an element of spontaneity to it and vary one's interpretations from day to day.

"Me? I am unpredictable even to myself," she continued. "You Americans seem so secure. When you decide on a course of action, you are persistent about it, and nothing can distract you from it. I like that stability you have, but I am not like that. I am characteristically Latin, up one day and down the next—always up, down, up, down."

Her description of herself is at odds with the look of total composure that she always presents on the concert stage. She enters with self-effacing modesty and, without smiling at the audience or indulging in any coquettishness, addresses herself immediately to making music. In writing of one of her concerts at Lincoln Center's Mostly Mozart Festival, William Anderson, Editor of this magazine, said of her platform manner that she was "straightforward and businesslike" and compared her to "a crack typist going about her chores with a coolly dignified efficiency."

"I am unpredictable even to myself. ... I am characteristically Latin, up one day and down the next."

"That may be the way it looks on the outside," Miss De Larrocha said, "but inside it feels quite different. There are days when going out on stage I feel as though I were going to the electric chair. Sometimes waiting to go on I suddenly realize there is an audience out there, and I think, 'I don't want to see you today.' Other days I go out thinking cheerfully, 'Well, here I am,

ready to play for you.' It all depends on the day."

MISS DE LARROCHA began studying the piano in Barcelona when she was a small child. Her only teacher was Frank Marshall, the favorite pupil of the composer Enrique Granados. She played recitals at the Marshall Academy from the age of five and soon thereafter played for outside audiences. "I didn't play the repertoire I play now—big pieces like the Beethoven concertos," she said. "But it is true that I have been performing for audiences for fifty years."

In the 1950s, Miss De Larrocha made concert debuts in Los Angeles and New York, playing to enthusiastic audiences and receiving excellent reviews. But she returned to Spain and for the next ten years gave concerts in Europe, made recordings, and taught. After Marshall's death in 1959 she and her husband, the pianist Juan Torra, directed the Marshall Academy.

In 1965 an American manager who had heard her records brought Miss De Larrocha back to New York for a second debut, and that was the beginning of one of the greatest international musical careers of the twentieth century. Of the decade between her appearances in the United States, she says simply, "I didn't return to this country between 1955 and 1965 because nobody invited me." Since then, however, she has toured the United States and Canada from coast to coast annually, and she receives more invitations to play in North America than she can accept. Worldwide she probably has the largest following of any living pianist because no other of her caliber plays as often as she does or tours as extensively.

Critics praise her for the intellect and heart in her playing, for taste and technique, and for subtlety and strength. Although she is only 4'9" tall, she can produce a big tone, and she can draw from the piano whatever volume she deems appropriate. The closest students of her work have usually come to the conclusion that the most outstanding characteristics of her playing are the unshakable rhythmic underpinning of all her interpretations and her uncanny ability to find a dance-like quality in whatever music she plays.

TEN years ago, although she played the standard keyboard repertoire in her North American concerts, Miss De Larrocha was known to record collectors in the United States and Canada only for her recordings of Spanish works. Now an exclusive London Records artist, she has built up a discography that includes not only composi-

Alicia de Larrocha

tions by Albéniz, Falla, Granados, and Montsalvatge, but also works by Bach, Mendelssohn, Chopin, Rachmaninoff, Schumann, Khachaturian, Grieg, Mozart, Liszt, and others.

Among the recordings London has scheduled for release this year are works by Schubert, Schumann, Bach, Haydn, and Mozart. Included is her "Mostly Mozart, Vol. IV," which will probably come out in July or August.

Miss De Larrocha finds responsive, demonstrative audiences everywhere. Last year she made her first tour of Israel and then returned to South America, where she plays every two or three years. But her big career blossomed first in the United States, and it is here that De Larrocha delirium is most fervent. Her modesty and reserve seem to stimulate American audiences to ever greater outbursts of enthusiasm. "There are only four states I've never visited," she says, "Montana, Nevada, Idaho, and Wyoming. I've even played in Hawaii. I've never played in Alaska, but I've been there."

THE place where she always wants to be at the end of December is Spain. She usually gives a recital in Madrid or Barcelona at that time and spends the Christmas holidays with her husband and their children Alicia and Juan. Last year, before going home for Christmas, she played a recital in West Palm Beach, Florida. It was her 124th concert for the year. According to her manager, taking into account her Christmas holiday, two weeks vacation in August, and two weeks recording in London, she had averaged a concert every 2.64 days.

Since she appears as soloist with so many different orchestras, I asked how she and the various conductors arrive at the interpretive approach to the works they are going to play. "When the conductor is a real musician, we don't need to talk. We play," she said. "Take Kiril Kondrashin. He seems severe and direct with his strong bearing, but he is a great musician with a mind of special quality. He communicates with his eyes. You have the feeling that he can look right through you. I played Ravel and Mozart with him in Jerusalem, Haifa, and Tel Aviv and Rachmaninoff at Robin Hood Dell. Our explanations to each other were in the music. He indulges in no gymnastics on the podium and none in the music. His Mozart just seemed to develop naturally. But if a

conductor is not such a real musician, that's when you have to talk."

Obviously in her career she has had to play with conductors whose ideas about the music were quite different from her own. "Yes, and it's not very pleasant. I don't like fights, and rather than fight with a conductor, I prefer to do it his way. You want this to be forte? Fine! Here it is forte! But inside I'm thinking, 'Tomorrow I'll be leaving this place and I'm going to forget *you!*' But who knows? Perhaps his way is good too."

Among the most exciting concerts in New York in 1979 were De Larrocha's performances of all five Beethoven piano concertos with the Pittsburgh Symphony conducted by André Previn. There was an almost palpable sense of communication between conductor and soloist. "I loved working with Previn!" she said. "With him there were no

"Whenever people ask me to name the great moments in my career, I always say, 'When I'm going home.'"

problems at all. We played the same music in several cities, and of course it came out differently on different days, but he could always see the direction I was taking and anticipate what I was going to do. For that you must be more than just a good conductor. There are lots of good conductors, but this kind of rapport happens seldom even with great conductors."

Among the honors Miss De Larrocha received in 1979 were two that pleased her particularly, the honorary degree of Doctor of Music from the University of Michigan and the Deutscher Schallplatten Prize for her recording of Granados' *Goyescas*. "I was glad to see that the Germans can take a Spanish artist seriously, to know that they don't think we are all tambourines, castanets, and—you know—*viva torero!*"

These honors were unexpected, and Miss De Larrocha insists that all the major events of her career have been unexpected. "I never expected a big career. I never even thought about it, and I don't think about it now. At times I think I must have dreamed the events of the last ten or fifteen years. Whenever people ask me to name the great moments in my career, I always say,

'When I'm going home.' After traveling for four or five months, there always comes a wonderful moment when I can think, 'Tomorrow I am going to get on a plane and go home.' Perhaps I would not appreciate home so much if I had never left it."

She says there are many fine young pianists coming up in Spain today and mentioned two in particular, Enrique Pérez del Guzmán and Joaquín Achúcarro. "Some of the young pianists ask me how I did this in my career or how I did that. What I wonder is *why* they want a career. I always advise them to devote themselves to making music and not to do it for a living. When they point out to me that I play for a living, I remind them that I never sought this career, it just came.

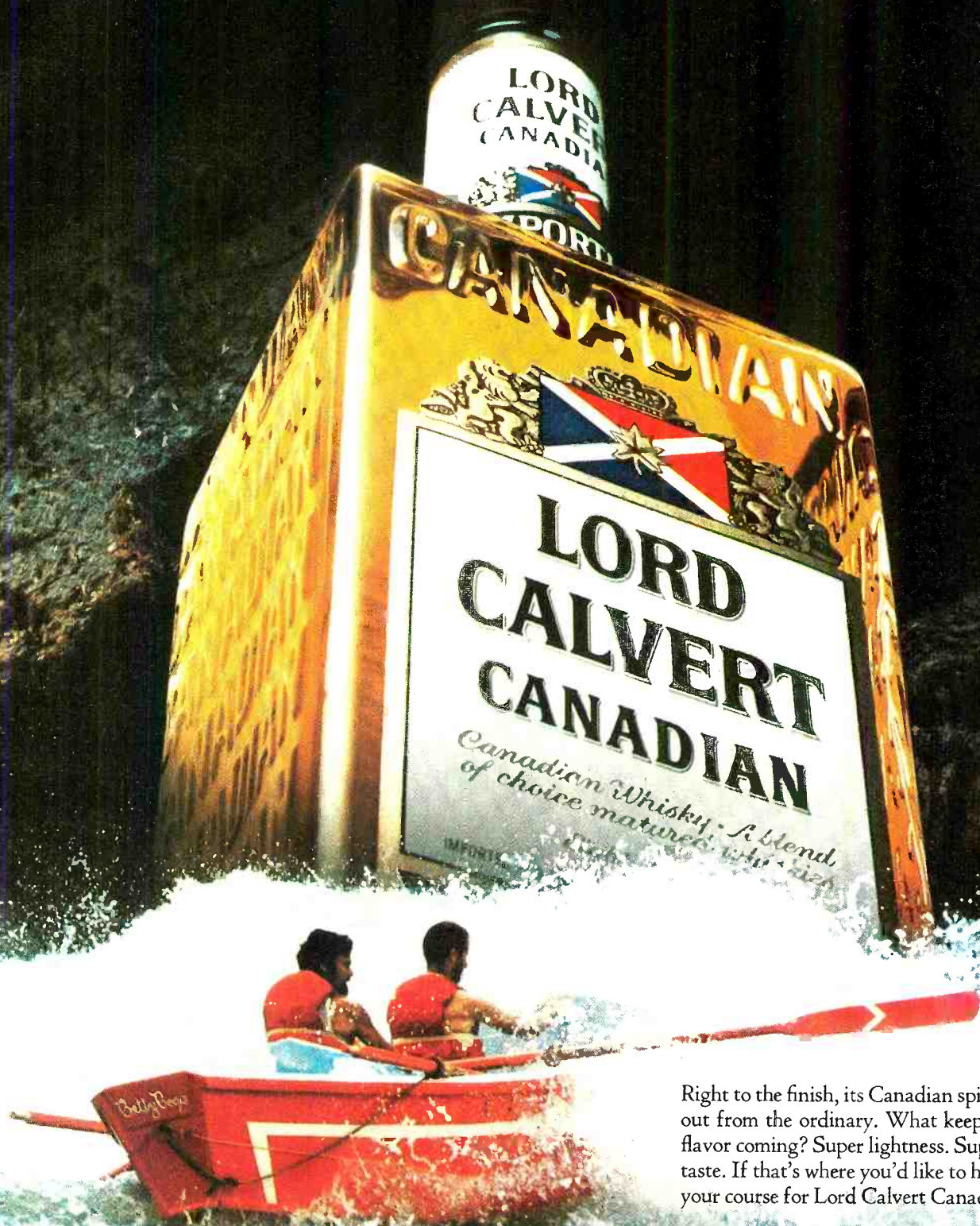
"With Victoria de los Angeles and Montserrat Caballé it was the same as for me. We never talked about concert halls and foreign tours when we were young. The three of us come from simple backgrounds—I won't say poor—but we grew up in modest circumstances. But material things do not bring happiness. We concerned ourselves only with making music, and that is still the greatest thing for me."

MISS DE LARROCHA is aware that just as foreigners often have stereotyped views of Spaniards based on *Carmen* and picture postcards of gypsies, many fans have unrealistic views of what a concert pianist is like in real life. As we finished lunch, she said that in Brazil, where she had just played, a young diplomat told her that he had gone backstage to see her after a concert expecting to find a world-famous artist, a great lady, and was surprised to find her so simple and down to earth. "I think he meant to pay me a compliment, but he made me feel that I should be wearing a black shawl and carrying a large bag."

Although I interviewed Miss De Larrocha ten years ago and have met her many times since, I must confess that I was a bit surprised to find her so unaffected by her position in the music world today, and finally I asked her point blank: "Does it mean absolutely nothing to you that you are thought to be one of the three or four top pianists in the world?"

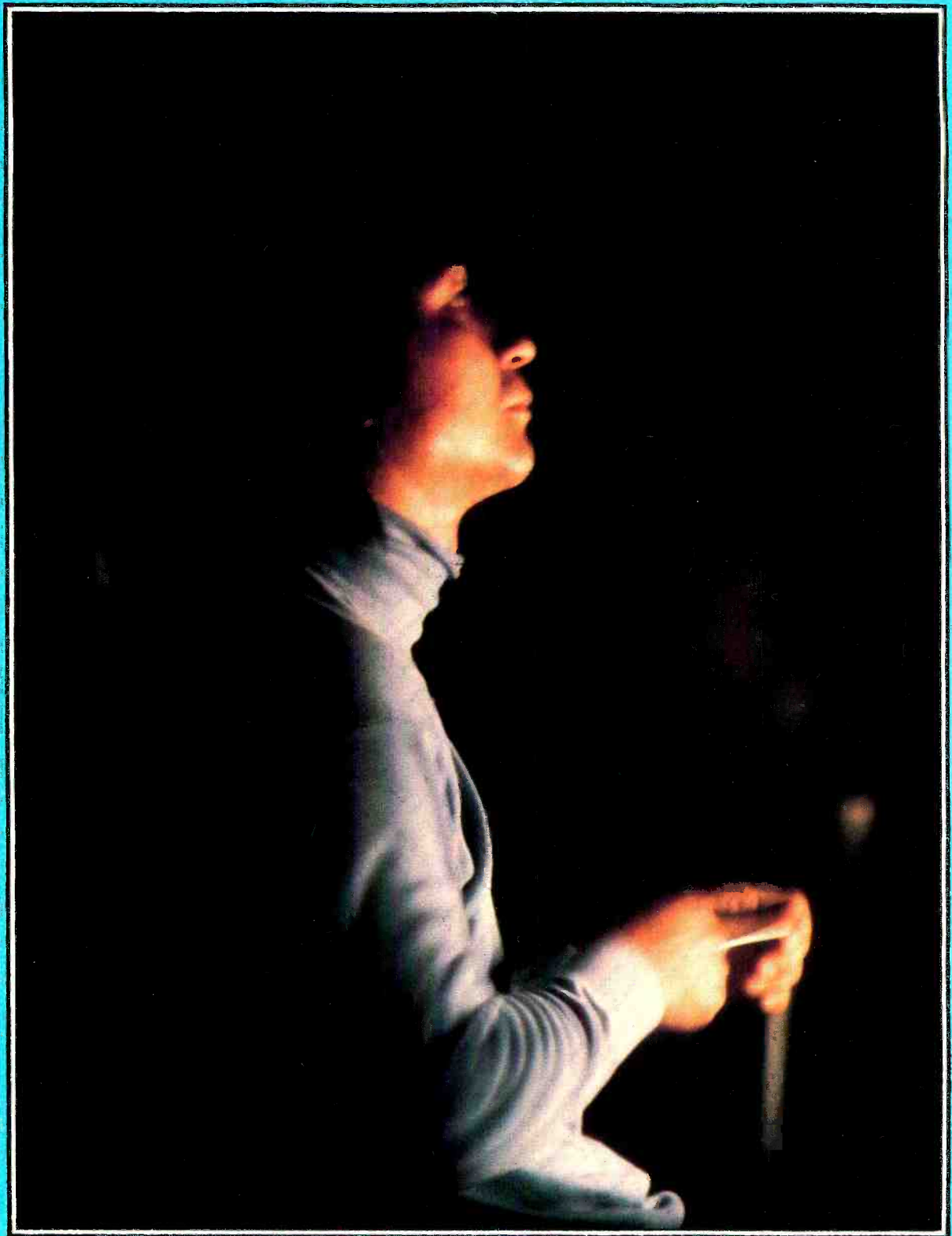
She looked me straight in the eye and answered instantly, "Absolutely nothing. I say that for three reasons. First, it isn't true. There are *many* excellent pianists. Second, no such thing exists. I would feel very sorry for anyone 'at the top.' And third, I simply don't care. Perhaps I am selfish, but all I want is to make music the best way I can, and I do that for myself." □

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Seiji Ozawa
(photo courtesy Polydor International)

STEREO REVIEW'S SELECTION OF RECORDINGS OF SPECIAL MERIT BEST OF THE MONTH



• A Spectacular Performance: Schoenberg's *Gurrelieder* •

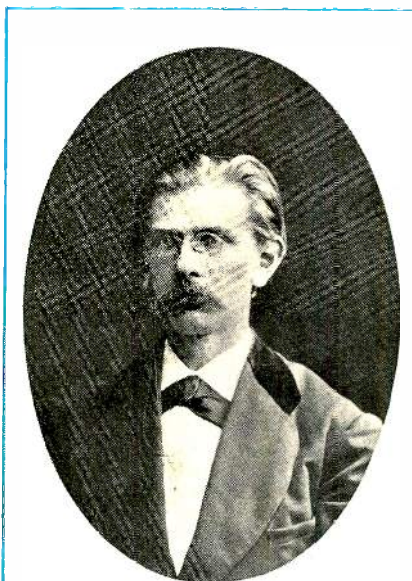
ARNOLD SCHOENBERG wrote his *Gurrelieder* in 1900-1901—stylistically speaking, a kind of gigantic farewell to nineteenth-century Romanticism. Ironically, it did not appear until 1913, by which time the composer was deep into another musical style entirely: atonalism. The work, one of the masterpieces of the post-Wagnerian period, caught the Viennese public by surprise; it was one of the few real popular successes Schoenberg ever had, and it led critics to bemoan the fact that a promising composer who could write music like this had taken leave of both Wagnerism and his senses.

Nonetheless, *Gurrelieder* was for long more a legend than a well-known work. Small wonder. It is a fresco of the hugest dimensions, demanding a full evening for performance by a full complement of forces including a large orchestra, male and mixed choruses (the latter for the final number only), solo singers who had better be *very* good, and a conductor who had better know what he is doing. Performances have understandably been few and far between, and then not always rapturously received by the critics. Still, the work has always fascinated the musical public, and sooner or later it always comes back. Most recently, Seiji Ozawa and his Boston/Tanglewood forces produced it and Philips undertook to record a live—and spectacular—performance in Boston's Symphony Hall.

It is, in two words, simply smashing. *Gurrelieder* is one of the *epic* works (the word is carefully chosen) of Western music and the final trump of European Romanticism—*late* Romanticism to the nth degree. Every possibility of fantasy, passion, mysticism, love of nature, symphonic theatricality, and apocalyptic vision is carried out on the largest scale. Schoenberg could probably have made a *whole career* out of

these ideas alone; instead, he chose to pack them all into one huge work and then move on to other things. An amazing man.

Gurrelieder is a setting of German translations from the works of Jens Peter Jacobsen, the nineteenth-century Danish poet. The story is one of those



JENS PETER JACOBSEN (1847-1885)

The Danish poet and novelist whose works inspired Gurrelieder

medieval symbolist tales so beloved in the period—something between *Tristan* and an *art nouveau Pelléas* (which subject Schoenberg was to treat later—but still before Debussy). In a way, the story hardly matters. We understand that the jealous Queen Helwig has Waldemar's secret love, Tove, put to death. Waldemar, driven to despair, curses God and in punishment is condemned to an eternal wild hunt—another cross, this time between *Tristan* and the *Flying Dutchman*.

SCHOENBERG'S score is unmistakably under the Wagnerian spell, and yet its profile is so strong, its fantasy so brilliant, its effects so telling that one never doubts its essential originality. The performance is spectacular. Ozawa and the musicians get caught up immediately in the epic/heroic style, with the result that while each individual moment is defined with dazzling clarity, the sense of an onrushing inevitability never slackens. It is curious that the tenor and soprano leads—James McCracken and Jessye Norman—both have dark, heavy voices while the smaller mezzo and baritone roles are sung by relatively light-voiced singers—Tatiana Troyanos and David Arnold. I am not sure that the parts of Waldemar and (especially) Tove are perfectly served by this heaviness of sound, but this, plus some lack of clarity in the recorded choral sound, is my only reservation. The singing is all strong, however, and more than equal to the musical and expressive demands of the parts. There is a notable Boulez recording of the work still in the catalog (Columbia M2Q 33303), but this one is a topper. Boulez makes us hear more of the music, but Ozawa plunges us back, headlong, into that turn-of-the-century spirit in a way that is overwhelming.

—Eric Salzman

SCHOENBERG: *Gurrelieder*. James McCracken (tenor), Waldemar; Jessye Norman (soprano), Tove; Tatiana Troyanos (mezzo-soprano), Wood Dove; David Arnold (baritone), Peasant; Kim Scown (tenor), Jester; Werner Klemperer (speaker) Tanglewood Festival Chorus; Boston Symphony Orchestra, Seiji Ozawa cond. PHILIPS 6769 038 two discs \$19.96, ©7699 124 \$19.96.

From Shostakovich's Last Years, Three Austere Masterpieces For Voice and Orchestra

DURING the last dozen or so years of his life, and beginning with the Thirteenth Symphony (based on the Yevtushenko poem *Babi Yar*, 1962), Dmitri Shostakovich was increasingly drawn to vocal composition, taking his inspiration from literary sources that seemed to echo the torments of his own mind.

Such is the case with the three song cycles (Opp. 145a, 60/140, and 143) written between 1970 and 1974, a period of introspection and pessimism in the composer's life. The first of these, the eleven Michelangelo songs dating from the old age of that universal genius and revealing a bitter and rebellious spirit, must have struck a responsive chord in a composer who had long been a shuttlecock of Soviet politics. A mood of brooding alienation runs through these poems, and they are given a serene and solemn music to match. The "English" settings of the second cycle (geographical imprecision is hardly a Russian monopoly, so it should not be held against the composer that he included Robert Burns among the "English" poets) were originally composed for voice and piano in 1942. It is not surprising that Shostakovich reset them to orchestral accompaniments in the crucial period around 1972, for their texts speak of weariness with life (Shakespeare), premonitions of tragedy (Raleigh), and political persecution and martyrdom (Burns). And finally, it is only natural that such a poem as Marina Tsvetayeva's *To Anna Akhmatova* (herself a poet and victim of Stalinist repression) would appeal to Shostakovich's creative imagination and lead to a third cycle.

These songs are, for the most part, gloomy and austere, kindred spirits to Shostakovich's last work, the *Viola Sonata*, Op. 147. The vocal writing is sure-handed, set in the singers' most effective ranges, and never obscured by the orchestration, which ranges from complete subservience to the voice to bursts of self-assertive violence. Unexpected orchestral effects and instrumental combinations abound. In one of the Tsvetayeva songs (*Hamlet's Dialogue with His Conscience*), most of the accompaniment is limited to low strings playing a monotonous *détaché* pattern; it is followed by another song in which the vocal line is quasi-spoken,



DMITRI SHOSTAKOVICH (1906-1975)

while the orchestral part surges forward powerfully. All three cycles fascinate the listener at first hearing and grow in impact on deeper acquaintance with them.

Yevgeny Nesterenko sounds as he did on his previous disc of Moussorgsky songs (Columbia M 35141) and, indeed, as he did when he visited New York a few years ago—simply magnificent. His is a voice of solid bronze, wide-ranging and well equalized in timbre, sensitively controlled, flawless in intonation, and absolutely secure in technique. Irina Bogacheva does not have the same sort of spectacular vocal endowment, but she matches the basso in dedication and expressiveness. The orchestral performances are excellent, and the recorded sound is on a par with the best.

—George Jellinek

SHOSTAKOVICH: *Suite on Verses by Michelangelo*, Op. 145a; *Six Songs to Lyrics by English Poets*, Op. 60/140. Yevgeny Nesterenko (bass); Moscow Radio Symphony Orchestra, Maksim Shostakovich cond.; Moscow Chamber Orchestra, Rudolf Barshai cond. ***Six Songs to Poems by Marina Tsvetayeva*, Op. 143.** Irina Bogacheva (mezzo-soprano); Moscow Chamber Orchestra, Rudolf Barshai cond. COLUMBIA M2 34594 two discs \$17.96.

Johnny Nash: A Hint of Reggae Sets His Festive New Album Apart

FOR Johnny Nash, the reggae star from—of all places—Houston, Texas, success has always been a sometime thing. Though his professional career dates all the way back to the mid-Fifties when, as a teenager, he became a seven-year (!) regular on Arthur Godfrey's radio and TV shows, the core of his popular identity still lies in a single major hit of 1972, *I Can See Clearly Now*. It was that song, which he composed, that introduced much of the American public to the lilting, sun-washed rhythms of reggae, a music that had been swept to these shores from its Jamaican homeland. Of course, the Nash treatment of reggae was tailored to suit more temperate tastes and was devoid of the political underpinnings that give true reggae its virile, assertive thrust, but he had captured the essential flavor of this music, transmitting it to an audience that

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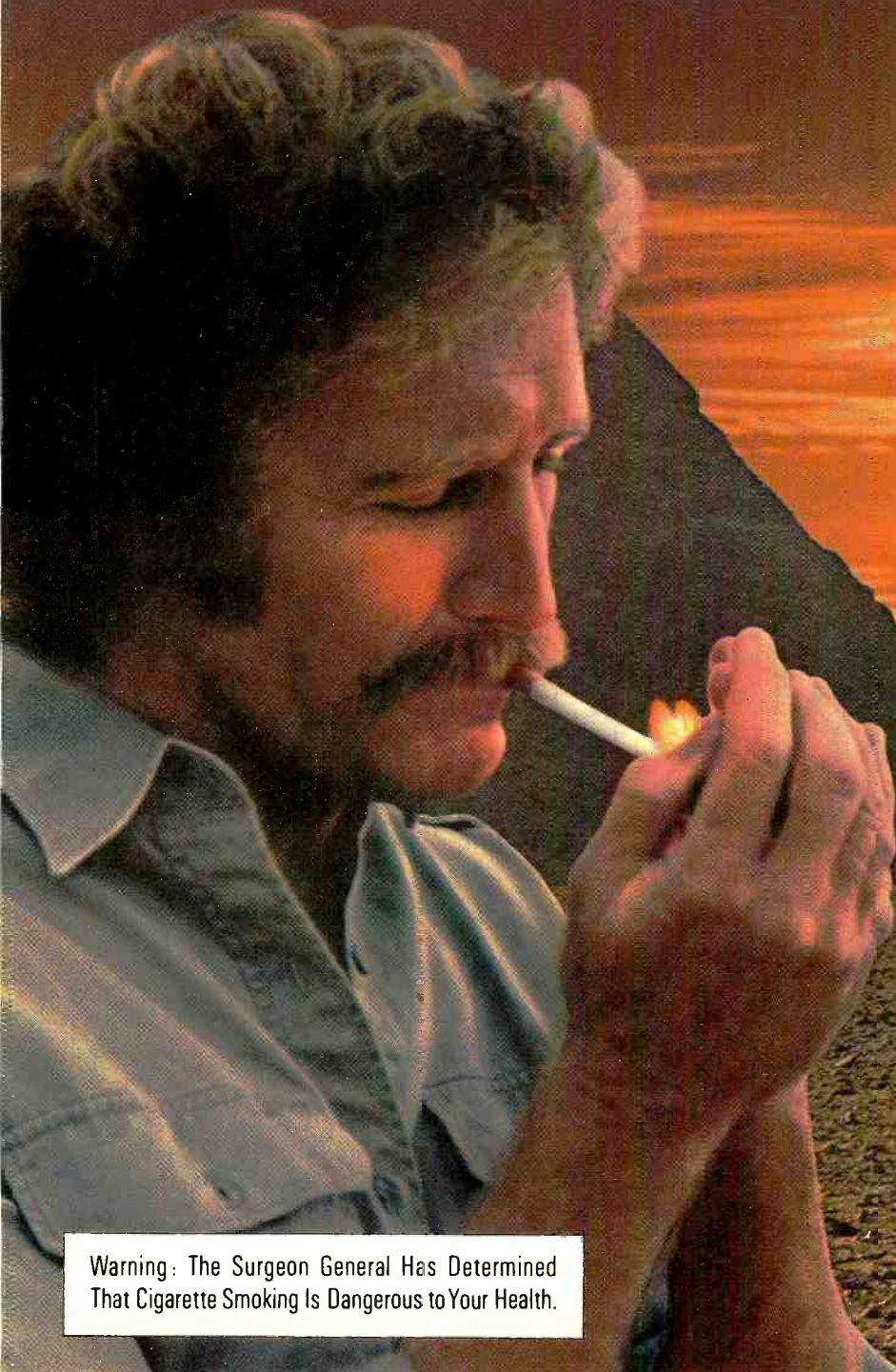
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spanned as many ages as categories.

Although Nash has recorded other albums in the years since, his new album, "Let's Go Dancing," is the first to recapture the charm and flow of his greatest hit. Here again is the controlled excitement that invites the listener into a lighthearted world of Caribbean festivity. Some of the effect is the result of clever illusion, since the songs do not differ markedly in theme and structure from standard pop or easy-listening fare, and there is an occasional disco beat underscoring a selection or two. Yet, a few tastefully placed accents and a percussive interjection now and then contribute a hint of reggae strong enough to set this album well apart from the ordinary.

Above all, Nash sings with such brightness and authority in his mellow tenor that he lifts the material to a level higher than it might have attained in the hands of anyone less accomplished. In addition, he composed one truly outstanding track here, *Mr. Sea*, and it is tellingly etched with an islander's whimsicality. Other special successes are *We're Lovers*, which highlights his ballad mastery, *Closer*, and Joan Armatrading's *Let's Go Dancing*. They demonstrate that though Nash's career has hit few peaks so far, the climb is far from over. —Phyl Garland

JOHNNY NASH: *Let's Go Dancing*. Johnny Nash (vocals); vocal and instrumental

accompaniment. *Wonderful Woman; Don't Forget; Very Special Girl; Mr. Sea; You're the One; Closer; Looking Over My Shoulder; We're Lovers; Let's Go Dancing*. EPIC JE 36311 \$7.98, © JEA 36311 \$7.98, © JET 36311 \$7.98.

If Anybody Can Bring Vaudeville Back, It's Irresistible Lucy Lowe

WHEN the Bicentennial celebrations came to a close at the end of 1976 it looked as though all those rich treasures of our musical heritage were going to be packed up and put away in their boxes again for another hundred years. Luckily, however, the job of resurrecting our musical past is still going on, and when it comes to popular music there are some few singers left who can warm up the charms of the old songs so that they live and breathe again for us today.

Such a performer is Lucy Lowe, and I can scarcely wait for you to make her acquaintance. Miss Lowe covers some of the same territory traversed so de-

lightly on discs by the impeccable Joan Morris, but she has her own way with the material, and she is, on her own terms, equally irresistible. Lowe is no research musicologist dusting off these old vaudeville numbers out of a patronizing curiosity. On the contrary, she grew up with them. She spent her childhood in the heart of Middle America, in Urbana, Illinois. Then she came to New York and became part of the cast of George White's *Scandals*, touring with that lavish, legendary revue all over the country. She did vaudeville turns. She took her own one-woman show across the land. In short, she knows her stuff.

I can think of no happier way to spend an evening than to listen to Lucy Lowe warbling the old favorites of our forebears—*Heaven Will Protect the Working Girl, Tarara Boom De Aye, (Who's Your Little) Whosis, We Men Must Wear a Moustache*—songs about cops and commuters, the "vo-do-de-o-do" cry of the sin-and-gin jazz-age flapper, the early days of radio ("Loud-speaking poppa, you'd better speak easy to me"), in her laughing, lilting soprano. I am persuaded that if anybody could bring vaudeville back, it would be Lucy Lowe. —Paul Kresh

LUCY LOWE: *Vaudeville Songs. Loud Speaking Papa; We Men Must Wear a Moustache; Do Something; Who Are You With?; She Came Without a Wedding*

JOHNNY NASH: still climbing peaks



Epic Records

LUCY LOWE: she knows her stuff



Musical Heritage Society



Joseph S. ...

MUSE-ers (left to right)
James Taylor, Graham Nash, Jackson Browne, and Carly Simon

Ring; *The Five Fifteen*; *Crazy Words*; *They Always Pick on Me*; *Poor Papa*; *One of the Finest*; *Billy*; *Heaven Will Protect the Working Girl*; *Tarara Boom De Aye*; *Whosis*; *Some Little Bug*; *Bumble Bee*. Lucy Lowe (soprano); Richard Eikenberry (piano). MUSICAL HERITAGE SOCIETY © MHS 7037 \$5.20 (plus \$1.25 handling charge from Musical Heritage Society, 14 Park Road, Tinton Falls, N.J. 07724).

The All-star No Nukes Concerts: Three Discs of Delicious Music

YOU can fault the people who put together the November "No Nukes" concerts in New York for a lot of things, but a lack of commitment is not one of them. The organizers of the MUSE (Musicians United for Safe Energy) shows are convinced that unless we stop all nuclear growth now we are literally committing both short- and long-term suicide, and they're willing to put their talents and their money where their convictions are. As a reviewer who gets his record albums free but nonetheless shares that view, I would recommend that you buy the lavish three-disc Asylum album documenting the concerts (the proceeds will go toward more active anti-nuke lobby-

ing) even if the music itself weren't worth it—but it is.

True, much of it is heavily oriented toward the kind of safe, corporate L.A. pop that has become the Muzak of our day. Specifically, there's more than enough Crosby, Stills and Nash to go around, and when you consider that none of the trio has written or sung a decent new song since 1970 that's kind of depressing. Still, the boys seem reasonably inspired here, either by the occasion or by the company they are keeping, and if you must have a version of Nash's *Cathedral* or *Teach Your Children*, these are pleasantly spunky performances.

But much of it is also simply delicious. High points (at least for me) include Tom Petty and the Heartbreakers on a lovely, churchy rindown of the old Solomon Burke soul stirrer *Cry to Me*; a Bruce Springsteen/Jackson Browne duet on *Stay* that catches the humor and r-&-b feel of the tune far better than Jackson's own recorded version; Raydio's irresistibly pretty *You Can't Change That*; Ry Cooder doing a *Little Sister* that is more ragged than the version on "Bop Till You Drop" but even more felt (plus some guitar work by David Lindley that approaches the sublime); and both of Bonnie Raitt's contributions, which find everybody's favorite rich blues singer seemingly overawed at first by the size of the crowd she faced but emerging victorious in the end.

Oh, sure, one might grouse a little about the rest, about the sickly-sweet air of Sixties nostalgia (can you imagine how sick and tired Jesse Colin

Young has to be of *Get Together*?) or the way the shows tried to perpetuate the myth of El Ay musical hegemony (I, for one, do not believe that the failure to include even *one* real New Wave type could be anything less than calculated musical politics). But, in the end, I don't care. I may not like John Hall's protest stuff, and I may think that the James and Carly show has about as much relevance to contemporary life as Nelson and Jeanette's, but I happen to be in the minority, so in the face of the indisputably good stuff scattered around "No Nukes" and the good cause all these artists are serving, you will not hear me complain one whit. Both musically and politically, this was a good job all around, and I hope they do it again sometime soon.

—Steve Simels

NO NUKES. The Doobie Brothers: *Dependin' On You*. Bonnie Raitt: *Runaway*; *Angel from Montgomery*. John Hall: *Plutonium Is Forever*. The Doobie Brothers with John Hall and James Taylor: *Power*. James Taylor, Carly Simon, and Graham Nash: *The Times They Are A-Changin'*. Graham Nash: *Cathedral*. Jackson Browne and Graham Nash: *The Crow on the Cradle*. Jackson Browne: *Before the Deluge*. Nicolette Larson and the Doobie Brothers: *Lotta Love*. Ry Cooder: *Little Sister*. Sweet Honey in the Rock: *A Woman*. Gil Scott-Heron: *We Almost Lost Detroit*. Jesse Colin Young: *Get Together*. Raydio: *You Can't Change That*. Chaka Khan: *Once You Get Started*. James Taylor: *Captain Jim's Drunken Dream*; *Honey Don't Leave L.A.* James Taylor and Carly Simon: *Mockingbird*. Poco: *Heart of the Night*. Tom Petty and the Heartbreakers: *Cry to Me*. Bruce Springsteen and the E Street Band with

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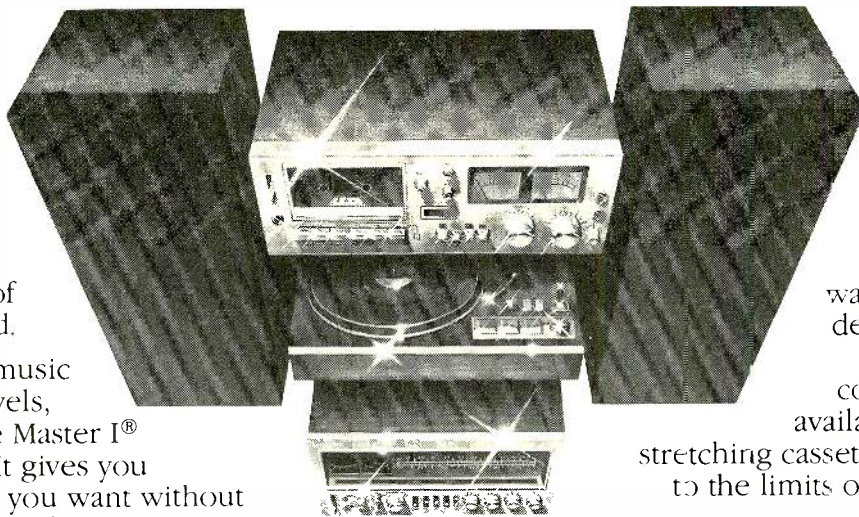
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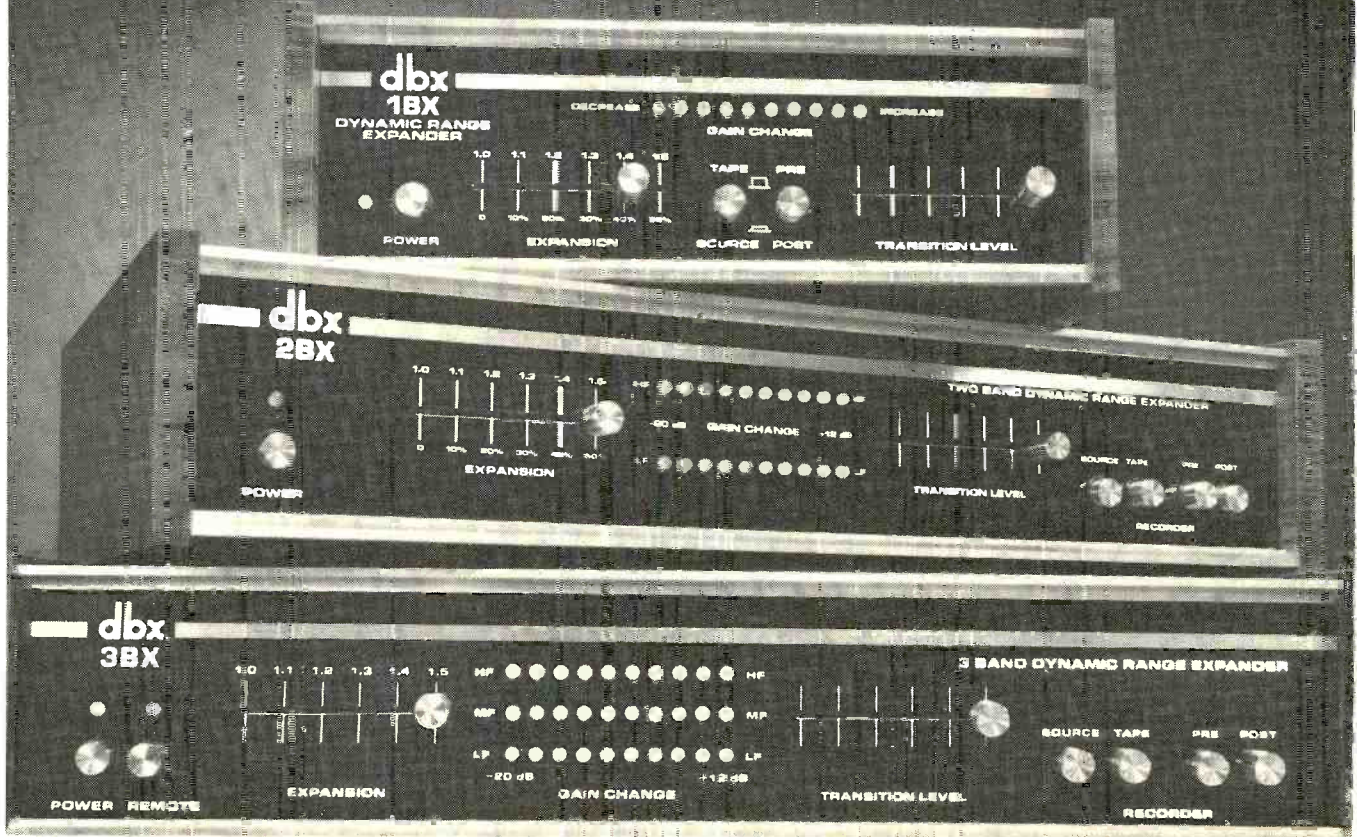
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The Debussy and Ravel Quartets: Quite Possibly The Best Ever

SINCE the age of microgroove began (in 1948), the solitary string quartet composed by Debussy near the beginning of his career and the one composed by Ravel at a similar point in his life have constituted one of the most popular pairings in the chamber-music discography. Virtually every quartet that makes records—the most conspicuous exception being the Amadeus—sooner or later gets around to giving us at least one such package. The newest one, by the Melos Quartet of Stuttgart on the Deutsche Grammophon label, brings the current total to about a dozen; it is the most satisfying to come our way in a long time, and quite possibly the best ever.

There have been some superb realizations of both works among the earlier recordings, though some of the finest

have not remained in the catalog long. A dozen years ago DG issued performances of these works by the Drolč Quartet, the splendid Berlin-based ensemble from whom little has been heard since then; that disc was outstanding in every way, but, perhaps because the public could not identify such a group with the French repertoire, it did not sell; neither, it seems, did the similarly exceptional offering by the Parrenin Quartet on the Connoisseur Society label. The fine remakes by the Quartetto Italiano have remained available (Philips 835 361LY), and only last year Columbia released a Deb/Rav disc by the Tokyo Quartet (M 35147) which I enjoyed a great deal, though several of my colleagues found it controversial at best. While the Melos Quartet, like the Tokyo, has been identified almost exclusively with Viennese repertoire heretofore, I cannot imagine anyone's finding this new issue controversial or in any way less than a compelling and enormously rewarding listening experience. The Melos' approach, in both works, is not as emphatic and overtly voluptuous as the Tokyo's, and not as understated as the Quartetto Italiano's, but it is a bit more refined than either. There is no attempt to adopt a "Gallic" character, but rather a direct and straightforward concern with following the respective composers' instructions—thereby enabling the particular character of these works to emerge, blossom, and enchant totally and irresistibly.

The Melos scores over the Quartetto Italiano in the Debussy, I think, by virtue of greater precision and security;

thematic lines are given a little more definite shape and rhythms are somewhat stronger, but with no loss of subtlety; dynamic gradations are managed with remarkable sensitivity, and there is an uncommon degree of integration throughout the work—as there is, indeed, in the Ravel too, which I have never heard set forth quite so persuasively, on records or otherwise. Here the Melos scores over the Tokyo Quartet by avoiding the unrelieved restlessness that underlies the latter group's highly charged reading. The slow movement in particular, with its unrushed pace and breathtaking yet unselfconscious soft playing, represents the most exquisite blend of insight, imagination, subtlety, and sheer skill. The magic comes off in the most unlabored way, the intensity seeming to generate itself from deep inside the music rather than from an interpretive overlay or any excess of pressure on the performers' part.

Where the new disc scores over all its predecessors even more surely is in the recording itself. Exceptional clarity, balance, and overall presence make it fully worthy of the exalted performances it serves to enhance. In every respect, this strikes me as a basic and essential item for any collection of recorded chamber music—or, for that matter, for any collection of recorded music whatever its formal biases.

—Richard Freed

DEBUSSY: *String Quartet in G Minor, Op. 10*. RAVEL: *String Quartet in F Major*. Melos Quartet, Stuttgart. DEUTSCHE GRAMMOPHON 2531 203 \$9.98, © 3301 203 \$9.98.



The Melos Quartet (left to right): Hermann Voss (viola), Gerhard Voss (second violin), Wilhelm Melcher (first violin), and Peter Buck (cello).

Classical Discs and Tapes



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

ARNOLD: *Serenade for Guitar and String Orchestra* (see CASTELNUOVO-TEDESCO)

BEETHOVEN: *Mass in C Major, Op. 86*. Christiane Eda-Pierre (soprano); Patricia Payne (contralto); Robert Tear (tenor); Kurt Moll (bass); London Symphony Chorus and Orchestra, Colin Davis cond. PHILIPS 9500 636 \$9.98, © 7300 741 \$9.98.

Performance: **Apparently excellent**
Recording: **Obscure**

If someone had taken a poll among the serious composers of the late eighteenth century about the future of music, they would probably have answered—Haydn, Mozart, Beethoven, to a man—that the future lay in the Great Contrapuntal Revival then taking place. Things did not work out quite that way, and counterpoint did not come back into its own until Brahms and after, but we do have some late, great works of Beethoven in which the tendencies toward counterpoint come to fruition. Beethoven's *Mass in C* is a relatively early work that shows the way. Written in 1807—about the time of the *Pastorai* Symphony—it is not just a rehearsal for the *Missa Solemnis* but a fully realized, independent work of great seriousness and nobility.

I think I like this performance, but much of its appeal is buried in the sanctified acous-

tical aura of All Saints', Tooting Graveney, London, where it was recorded. Recording engineers—particularly European ones—love this kind of sound. Turn them loose on a *Mass* and the result is hopeless. But don't tell me Beethoven wrote his music to be lost in cathedral mush. Perhaps a large church is spiritually sufficient for listening to grand old church music (of the sixteenth century, at any rate), but if I'm going to listen to Beethoven in my living room I would like the chance to be able to appreciate what is going on. I don't get it here. In short, everything but the surface of this music is lost in the glorious haze. Except for an occasional (and somewhat strained) solo by Robert Tear and a few contrapuntal lead parts, the male solo and choral voices are lost in the shuffle, as are the timbres and lower contrapuntal and harmony parts in the orchestra. Even the liveliness and dynamic weight of much of the performance work against it, since they only increase the acoustic muddle. Too bad. *E.S.*

BEETHOVEN: *Symphony No. 6, in F Major, Op. 68 ("Pastoral")*. English Chamber Orchestra, Michael Tilson Thomas cond. COLUMBIA M 35169 \$8.98, © MT 35169 \$8.98.

Performance: **Flowing, transparent**
Recording: **Good**

In recent years a number of efforts have been made to perform the Beethoven symphonies with orchestral forces approximating those of the composer's own time—that is, with a reduced string body. This would, on the one hand, eliminate the need for doubling the woodwinds (as is usual with today's hundred-piece ensembles) and, on the other, bring the woodwind lines into a more just balance with the orchestral texture as a whole. Neville Marriner and the Academy of St. Martin-in-the-Fields have taken this approach with Symphonies Nos. 1, 2, and 4 for Philips, and on the European Harmonia Mundi label the Stuttgart-based Collegium Aureum has gone a step further, playing the *Eroica* with gut-stringed instruments and natural horns. Now Michael Tilson Thomas and the English

Chamber Orchestra offer the latest of these "authentic" Beethoven realizations. Like Marriner, Thomas sticks with modern instruments; the first and second violins are placed at left and right, respectively, in the Classical manner.

The result here is eminently satisfactory in terms of transparency of texture and absence of the heaviness that sometimes creeps into readings of Beethoven's bucolic masterpiece. The opening movement takes its course in leisurely but not lazy fashion, though to my ears there is a slight overbalancing toward the horn section. The *Scene by the Brookside* purls along effortlessly—not, thank goodness, soporifically—and the solo oboe and clarinet bring off their avian roles with great elegance and character. The three interlocked final movements—dance, storm, thanksgiving—have all the necessary verve, power, and fervor one could ask of a modest-size ensemble, with a welcome lack of forcing by the brass and percussion. The sonics are excellent throughout, with nice integration of ambience and presence. However, my review copy was afflicted all through side two with right-channel swish and crackle, and the slightly off-center pressing did not make for intonational stability in the closing pages. In all, though, this release gives a salutary new perspective on a repertoire warhorse. *D.H.*

BERWALD: *Grand Septet in B-flat Major* (see HUMMEL)

RECORDING OF SPECIAL MERIT

BIZET: *L'Arlésienne Suites Nos. 1 and 2; Carmen Suites Nos. 1 and 2*. London Symphony Orchestra, Neville Marriner cond. PHILIPS 9500 566 \$9.98, © 7300 715 \$9.98.

Performance: **Tasteful and affectionate**
Recording: **First-rate**

In recording with orchestras larger than his famous Academy, Neville Marriner seems to be more successful—so far, anyway—conducting lightweight French and Viennese material at home than going to Amsterdam to do Elgar and Holst. His recent collection of

Explanation of symbols:

- Ⓢ = open-reel stereo tape
- Ⓣ = eight-track stereo cartridge
- Ⓢ = stereo cassette
- = quadraphonic disc
- Ⓛ = digital-master recording
- Ⓛ = direct-to-disc

Monophonic recordings are indicated by the symbol Ⓜ

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

Suppé overtures with the London Philharmonic (Philips 9500 399) is thoroughly delightful, and so is this new Bizet program with the London Symphony. The music has not exactly been neglected on discs. No one who knows Toscanini's version of the *Carmen* Suite No. 1 (Victrola VIC-1263) is likely to be satisfied with any other, but there is some very attractive music in the other suites in this package, and it all benefits from the kind of sound Philips can provide now.

The real competition with this particular coupling comes from Stokowski (Columbia M 34503) and Markevitch (Philips Festivo 6570 107), both of whom show a little more flair here and there than Marriner but neither of whom draws quite such lovely playing from his respective orchestra. All three conductors are kind enough to omit the awful intermezzo Guiraud put into *L'Arlésienne* No. 2, but Marriner gives us rather more than we need from *Carmen*, inserting into the Second Suite an arrangement of Escamillo's aria, the theme of which has already been paraded in the opening section of Suite No. 1. The most substantial of these four suites (and the only one Bizet put together himself), *L'Arlésienne* No. 1, comes off especially well under Marriner, whose warmhearted yet never sentimentalized reading is probably the most affecting since Martinon's (now on Quintessence PMC-7024, with a single movement from the second suite). Beecham may have provided the model for the effectively unrushed tempos here; Marriner might not exhibit Beecham's genius for the molding of a phrase, but his tastefulness and apparent affection for the music, combined with the orchestral and sonic virtues already cited, make this an exceptionally enjoyable record. R.F.

BLOCH: Sonata No. 2 for Violin and Piano ("Poème Mystique"; *Baal Shem*; *Avodah*. Michael Davis (violin); Nelson Harper (piano). ORION ORS 79344 \$7.98.

Performance: **Convincing**
Recording: **Handsome**

Michael Davis has shown an enterprising sense of programming in his few recordings to date, all of which have presented him in persuasive performances of twentieth-century music. None of the other material he has given us on Orion so far is as familiar as these three works by Bloch, but even these have had far less exposure than one might have thought. This appears, in fact, to be the first stereo recording of the Second Sonata (*Poème Mystique* is really a better title, for there is nothing really sonata-like about this mystical, one-movement work), and it is a welcome companion to Isaac Stern's superb account of the First Sonata on Columbia Special Products AMS-6717—which disc, however, contains another performance of the *Baal Shem* suite. (I had hoped Stern would eventually record all of Bloch's violin music, but since the one disc he did make has been relegated to the special-order section, that now seems unlikely.) Davis is quite convincing in the *Poème Mystique*, producing more of the intensity and sense of commitment the work calls for than Heifetz suggests in his brilliant but bland performance in RCA ARM4-0947 (a recording in which the focus is so insistently on Heifetz that Brooks Smith's fine performance of the piano part can hardly be heard). The other two works on the new disc come off very well too; Nelson

Harper's accompaniments are very much to the point, and the recording balance between the two instruments is just right. R.F.

BOCCHERINI: String Quintet in C Major, Op. 25, No. 4 (see HUMMEL)

RECORDING OF SPECIAL MERIT

CASTELNUOVO-TEDESCO: Guitar Concerto in D Major, Op. 99. ARNOLD: Serenade for Guitar and String Orchestra. DODGSON: Concerto No. 2 for Guitar and Chamber Orchestra. John Williams (guitar); English Chamber Orchestra, Sir Charles Groves cond. COLUMBIA M 35172 \$8.98.

Performance: **Stunning**
Recording: **Superb**

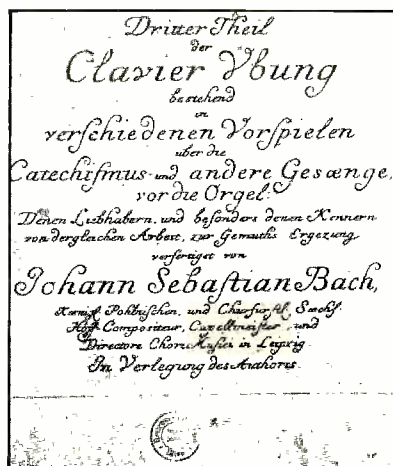
Some of the most voluptuous music of our century is to be found in the guitar concertos of Mario Castelnuovo-Tedesco (besides the one recorded here, he has another for two guitars and orchestra). He wrote for other soloists, too—an exquisite concerto for violin, another for harp, and some stunning chamber music for various combinations—but when he turned to the guitar he made its strings speak with the tongues of angels. Although his music is rather Spanish in flavor, the composer himself was born in Italy (Florence) and grew up there, fleeing to America when

Mussolini introduced anti-Semitic laws. He wrote this guitar concerto in 1939, and it was introduced in Montevideo by Segovia, to whom it was dedicated. Stylistically it seems to hover fascinatingly on the borderline between the Classical and the Romantic, the medieval and the modern. There are several other recordings of it in the catalog—one with Alirio Diaz, one with Narcisso Yepes, and John Williams himself has recorded it before with Eugene Ormandy—but this new version by Williams with the English Chamber Orchestra under Sir Charles Groves is the most exquisite of the lot.

The Stephen Dodgson concerto, completed in 1972, is a more austere work in which the guitar is made to speak in an almost Brittenish English accent. It is superbly crafted, as was this composer's earlier (1956) and smaller-scale piece for the same forces. To fill out the program there's the brief, appealing *Serenade for Guitar and Strings* by Malcolm Arnold, a deft and diverting piece of music indeed. In all, a lovely disc. P.K.

RECORDINGS OF SPECIAL MERIT

CHOPIN: Polonaise in A-flat Major, Op. 53; Berceuse in D-flat Major, Op. 57; Impromptu in A-flat Major, Op. 29; Ballade in A-flat Major, Op. 47, No. 3; Nocturne in C Minor, Op. 48, No. 1; Fantaisie Impromptu, Op. 66;



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Frontispiece of the first edition, 1731

PART Three of the *Clavier-Übung*, known as the German Organ Mass, contains some of J. S. Bach's most mature works for solo organ: twenty-one chorale preludes and four duets (akin to the Two-part Inventions) framed by the magnificent *St. Anne's* Prelude and Fugue in E-flat Major. It is a thrilling cycle that should be heard more often than most music lovers hear it today.

In a new recorded performance from Telefunken, both Ton Koopman and the Trinity Organ in Ottobeuren are magnificent. The instrument boasts an astonishing variety of registers, and Koopman makes the most of them. He imbues each of the chorale preludes with a different sonority that brings out the particular Lutheran chorale melody it is based on, but he never obscures the clarity of the web of figuration surrounding it. In the

various fugues and duets, each voice is carefully etched and clearly audible. It is not only the choice of registration, however, that brings clarity to the music, but Koopman's sharp articulation as well. Though the contrast between *détaché* and legato passages is carefully worked out, the long line and rhythmic drive are never lost in fussy detailing. This approach results in crisp readings that at the same time preserve the tremendous dignity of the music. If there is such a thing as a "definitive" performance, this one surely qualifies for the title. —Stoddard Lincoln

J. S. BACH: Clavier-Übung, Part Three ("German Organ Mass," BWV 552, 669-689, 802-805). Ton Koopman (organ). TELEFUNKEN 6.35375 DX two discs \$19.96.

Scherzo in B-flat Minor, Op. 31, No. 2; Waltz in C-sharp Minor, Op. 64, No. 2. Earl Wild (piano). QUINTESSENCE PMC-7131 \$3.98.

CHOPIN: *Concerto No. 1, in E Minor, for Piano and Orchestra, Op. 11.* Earl Wild (piano); Royal Philharmonic Orchestra, Sir Malcolm Sargent cond. **FAURÉ:** *Ballade for Piano and Orchestra, Op. 19.* Earl Wild (piano); Metropolitan Symphony Orchestra, Charles Gerhardt cond. QUINTESSENCE PMC-7141 \$3.98.

Performances: **Very special**
Recordings **Okay**

"Wild About Chopin" is the title of Earl Wild's new solo Chopin album on Quintes-

sence. I would like to go on record about this record stating that I am wild about Wild about Chopin. This is free, controlled, fantastical, poetical playing that goes right to the heart of Chopin. Wild's technical skills are well known, but it is his musicality and feeling for the Romantic style that make this performance so special. He makes these old war-horses moving and thrilling without a single note of bombast, rhetoric, eccentricity, or show-off-ery. Wild studied with Egon Petri and thus lays claim to descent from Busoni and the Romantics. Whether that claim means anything historically or not, I'm willing to accept it on the basis of my ears and musical instincts.

The concerto performance is excellent too,

although it is of necessity much less revealing than the later and more remarkable solo pieces. It is a fluent and exciting reading, nevertheless, and even the rather pedestrian Sir Malcolm Sargent and his not-quite-ready-for-prime-time English players pick up the spirit. The Fauré *Ballade* is a curiosity: an early, sweet, idyllic, and youthful work well played by Wild and one of the English orchestras (under a *nom de disque*) and very competently conducted by the producer of these recordings. Both of these performances date from the Sixties and, like other Quintessence issues (but not including the "Wild About Chopin" album, which is new), were originally made by the *Reader's Digest* for mail-order circulation. Curiously, I liked the 1962/1967 piano-and-orchestra sound better than the 1978 RCA/NYC solo-piano sound. But don't let that stop you from acquiring a wonderful recording. *E.S.*

DEBUSSY: *String Quartet in G Minor, Op. 10* (see Best of the Month, page 91)

DODGSON: *Concerto No. 2 for Guitar and Chamber Orchestra* (see CASTELNUOVO-TEDESCO)

FAURÉ: *Ballade for Piano and Orchestra, Op. 19* (see CHOPIN)

RECORDING OF SPECIAL MERIT

GLIÈRE: *Symphony No. 3, in B Minor, Op. 42 ("Ilya Murometz")*. Royal Philharmonic Orchestra, Harold Farberman cond. UNICORN ◉ PCM 500/1 two discs \$24.98.

Performance: **Good to superb**
Recording: **Impressive**

Reinhold Glière's vast (some would say bloated) hour-and-a-half symphonic fresco depicting the exploits of the mythic Slavic bogatyr (hero) Ilya Murometz has heretofore had but one complete recorded performance, which was issued by Westminster in 1953. Stokowski, Ormandy, Rachmilovich, and Fricsay have all recorded what amounts to "highlights" versions, and the 1975 Columbia/Melodiya issue conducted by Nathan Rakhlin, though more complete, still had a considerable number of cuts.

The enterprising Harold Farberman has here essayed the entire score, and I must admit that even though Glière stretched the musical substance as far as it would go, and then some, the work makes far more sense in terms of musical logic when heard complete than it does in its cut form. Not the least achievement of the present recording is that the only tape editing was done in the twenty-seven-minute, lung-busting finale, although the first two movements run slightly over twenty-eight minutes apiece!

Farberman gets off to a rather four-square start in the first movement, but once that is past he and the Royal Philharmonic players come through with a performance remarkable for its finesse and intensity. For all its echoes of Wagner's *Tristan* and the *Siegfried* "Forest Murmurs," with touches of Scriabin and Sibelius thrown in, the second movement offers the most interesting music—as well as the best playing in the album. Excellent, too, is the reading of the third movement, which seems here less tiresomely repetitious than usual. The finale, a kind of recapitulation of all that has gone before, is an orchestral en-

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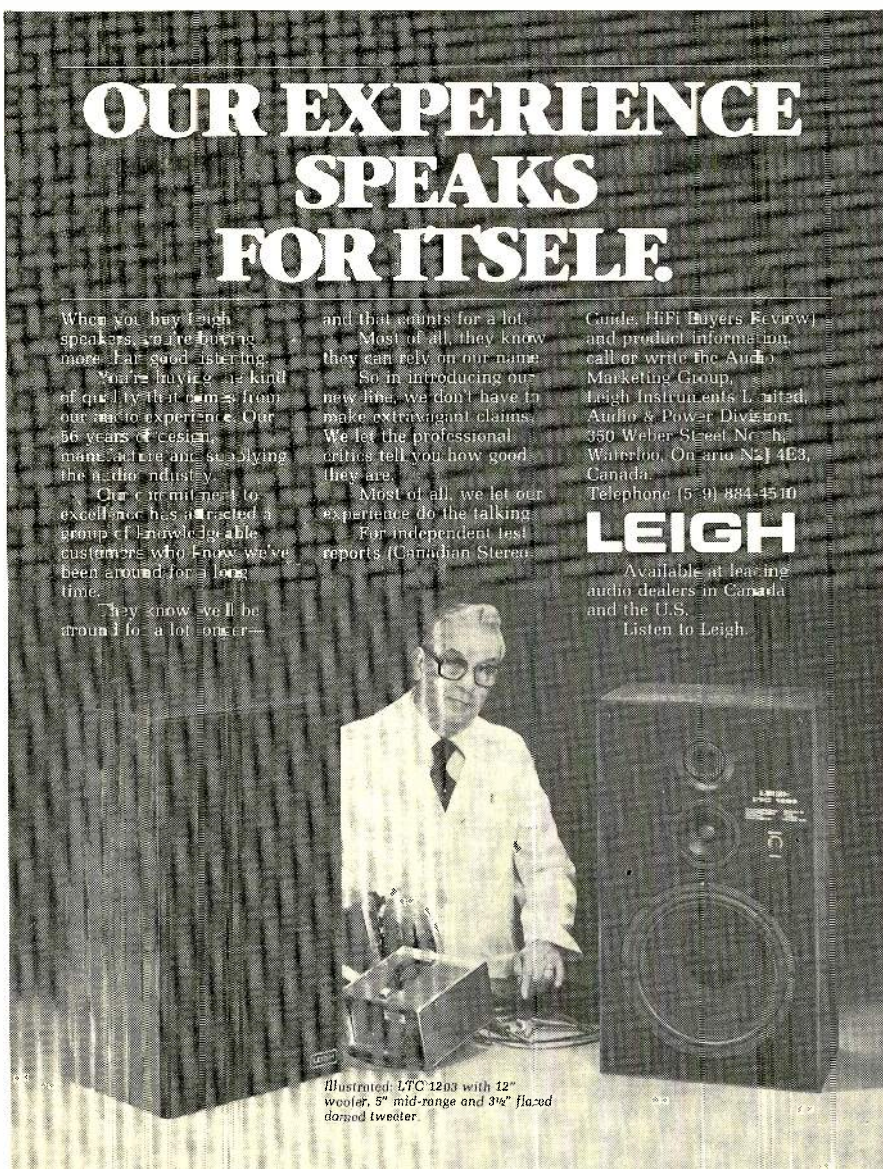
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duration test equaled in the repertoire only by the corresponding movements of Bruckner's Fifth Symphony and Mahler's Sixth. But Farberman eschews the blockbuster approach, bending his efforts instead toward clarifying the musical argument and working slowly but surely toward the shattering climax depicting the defeat of the bogatyrs by the armies of Heaven. Though I would have preferred a more urgent treatment of the Orthodox chant motif that reaches its apotheosis in this movement, I can't fault the interpretation as a whole.

Given the special advantages of digital tape mastering, the texture of Glière's scoring emerges with remarkable clarity. This is most apparent in the second movement, with its enormous variety and fineness of detail; the sense of localization and depth is altogether remarkable. The luminous quality of the scoring in the third movement is similarly heard to singularly effective advantage. The recording is first-rate as to hall ambiance and orchestral presence. The frequency range is extremely wide and well balanced, though the dynamic range is not quite as spectacular as on Telarc's Cleveland Orchestra and Wind Ensemble discs. The British pressing is also not on quite the same high level as Telarc's Japanese product. Despite such minor reservations, this album is a worthy investment for sound buffs and aficionados of things musically Muscovite. *D.H.*

RECORDING OF SPECIAL MERIT

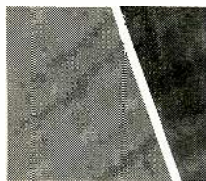
HAYDN: *Symphony No. 45, in F-sharp Minor ("Farewell"); Symphony No. 48, in C Major ("Maria Theresia")*. English Chamber Orchestra, Daniel Barenboim cond. DEUTSCHE GRAMMOPHON 2531 091 \$9.98, © 3301 091 \$9.98.

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

HAYDN: *Symphony No. 31, in D Major ("Horn Signal"); Symphony No. 73, in D Major ("La Chasse")*. Academy of St. Martin-in-the-Fields, Neville Marriner cond. PHILIPS 9500 518 \$9.98, © 7300 674 \$9.98.

Performance: **Stylish**
Recording: **Very good**

Ever since the withdrawal of Mogens Wöldike's early-Fifties recording of Haydn's exuberantly festive *Maria Theresia* Symphony on London, I have been hoping for a stereo version to match its wit, crispness, and all-round sense of style. Of all the more recent recordings, Antal Dorati's, in his admirable Haydn cycle (London STS 15249/54), comes the closest, but the horns of the Philharmonia Hungarica do not quite achieve the same degree of brilliance Wöldike's Danes had displayed and the recording itself could be a bit brighter. I have no such reservations about Daniel Barenboim's new recording of the work for Deutsche Grammophon. Barenboim uses the drums to great effect, together with a pair of really stunning horns, to underline the exhilaration of the grand opening movement. His performance of the whole symphony is perhaps even more spirited and polished than Wöldike's, and it is in any event irresistibly attractive in DG's splendidly open sound. Since the overside performance of the *Farewell* Symphony is downright revelatory in terms of that frequently misjudged work's substance and depth, the record is clearly a



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Beethoven's Op. 131 in a New Light



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LEONARD BERNSTEIN conducts the Vienna Philharmonic string section in a new Deutsche Grammophon live recording of Beethoven's Op. 131—which is, of course, the String Quartet No. 14. The idea of having a string quartet performed by an entire orchestral string section is not a new one, and in the case of Beethoven's late quartets there is a tradition of sorts that goes back at least as far as Mahler. The *Grosse Fuge*, especially, has long been a part of the string-orchestra repertoire.

According to Jack Gottlieb's liner notes, Bernstein heard the Boston Symphony strings play the Op. 131 in 1937, when, as an eighteen-year-old Harvard sophomore, he attended the American conducting debut of Dimitri Mitropoulos. Nine years later he borrowed Mitropoulos' score to prepare his own first performance of the work, with the newly formed New York City Symphony Orchestra. I have no idea how often he has conducted it since then, but he obviously feels very deeply about it, as evidenced by his dedication of the recording (an excellent one, without a hint of the audience noises one expects in a live take) to the memory of his late wife, Felicia Montealegre, by Gottlieb's report that he "... feels that this performance is the proudest conducting achievement of his life," and by the characteristically intense, totally committed performance itself.

Gottlieb suggests that the "Op. 131 succeeds in [the string-orchestra] medium because the inner voices seem to be more audibly delineated when played by a full body of strings. Not only is the counterpoint clarified, but many of the awkwardnesses with which four individual players have to struggle ... are eliminated." I'm not so sure the lines are really clearer here than in a performance by only four players, but they are certainly *stronger*, and there are, of course, wider ranges of both dynamics and sheer

weight of tone than four players alone can achieve. I'm not sure either that I don't miss a sense of struggle by the performers, which has always seemed consonant with Beethoven's own struggle with concepts of cosmic proportions in this apocalyptic score, as well as some of the craginess that seems inevitably smoothed over by the enlarged ensemble. But there is something to be said for the notion that a greater dramatic drive and a more unremitting momentum can be maintained throughout the work with a single overseer in command (particularly if this happens to be Leonard Bernstein). In exchange for the give-and-take of chamber music, we are given an especially powerful and unified statement in an altogether different and more colorful context. Some passages toward the end of the great central slow movement may seem a little too lush, but the big, juicy pizzicatos are very much to the dramatic point, and the opening of the fifth movement does not seem at all overinflated in suggesting the strongest bond with the scherzos of the Fifth and Ninth Symphonies.

THIS is a fascinating performance, even if it is not a replacement or substitute for one by a string quartet. What Bernstein here demonstrates most conspicuously, perhaps, is that the very notion of any exclusive performing medium for music of such extraordinary scope is unrealistically limiting; neither a single performance nor a single performing format can possibly reveal all there is in such a work. Anyone who cares about Beethoven's Op. 131 must at least hear this recording.

—Richard Freed

BEETHOVEN: *String Quartet No. 14, in C-sharp Minor, Op. 131 (String-orchestra Version)*. Members of the Vienna Philharmonic Orchestra, Leonard Bernstein cond. DEUTSCHE GRAMMOPHON 2531 077 \$9.98.

winner. I don't think Barenboim has given us anything better than this since he began recording as a conductor, and there cannot be more than a handful of Haydn symphony records from any source as stimulating and pleasurable as this one.

Neville Marriner's newest Haydn release offers stylish, enjoyable performances of two symphonies that are a cut or so below Barenboim's pair on Haydn's own production scale but are certainly engaging enough in their own right. The more striking is No. 31, with its robust fanfares for the four horns and concertante episodes for various other instruments in the variation-finale, and No. 73 has three ingratiating, if not especially remarkable, movements leading to its celebrated finale (*La Chasse*), which Haydn composed originally as the overture to his opera *La Fedeltà Premiata*. Dorati and the Philharmonia Hungarica happen to be at their best in No. 31, capturing more of its rumbustiousness and general high spirits (in London STS 15257/62), but Philips' brighter sound serves Marriner to advantage in No. 73. In the latter work Marriner's tempo for the menuet seems especially well judged, too, in contrast to Dorati's very slow one (London STS 15445) and over-energetic ones from some other conductors. All in all, a most agreeable production, but by no means as sweepingly superior as the Barenboim. R.F.

HUMMEL: *Septet in D Minor, Op. 74*. **BERWALD:** *Grand Septet in B-flat Major*. Nash Ensemble. VANGUARD VSD-71260 \$7.98.

Performance: **First-rate**
Recording: **Very good**

HUMMEL: *Septet in D Minor, Op. 74*. Beth Levin (piano); Judith Mendenhall (flute); Rudolph Vrbsky (oboe); Robert Rouch (horn); Caroline Levine (viola); Lisa Lancaster (cello); Julius Levine (double bass). **BOCCHERINI:** *String Quintet in C Major, Op. 25, No. 4 (G. 298)*. Pina Carmirelli, Naoko Tanaka (violins); Philipp Naegele (viola); Jerry Grossman, Marcy Rosen (cellos). COLUMBIA M 35163 \$8.98.

Performance: **First-rate**
Recording: **Very good**

Hummel's septet, surely the finest of his chamber works, has had far fewer recordings than one might have thought, and none of them has stayed in the active catalog very long. These two are both first-rate, presenting one of those enjoyable dilemmas sometimes resolved only by dual purchase. The London-based Nash Ensemble is somewhat crisper and perhaps a little tidier, with really brilliant playing from pianist Clifford Benson in his concerto-like role. The other team, assembled at the Marlboro Festival, is a bit more expansive and also more dramatically expressive, suggesting a greater degree of spontaneity and happy involvement. None of these qualities is lacking in either performance, however, and both are very well recorded, Columbia's being one of its smoothest jobs from Marlboro—free of applause, throat-clearing, and other extraneous noises. The Vanguard disc does offer two conspicuous advantages: the Hummel fits on a single side (with a touch of post-echo, however), and the companion piece is the very substantial septet of Franz Berwald, a work that has not

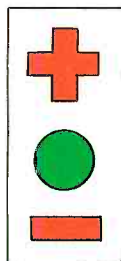
(Continued on page 98)



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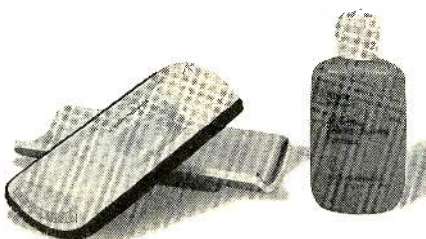

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been available on records for some time and which is very well served here. The Boccherini quintet that shares side two of the Columbia disc with the Hummel finale, while a slighter work, is certainly a delicious one, and it has apparently never been recorded before at all. Pina Carmirelli and her associates here give an extremely persuasive account of it. *R.F.*

MASSENET: *Don Quichotte*. Nicolai Ghiurov (bass), Don Quichotte; Gabriel Bacquier (baritone), Sancho Panza; Régine Crespin (soprano), Dulcinée; Michèle Command (soprano), Pedro; others. Chorus of the Radio Suisse Romande and l'Orchestre de la Suisse Romande, Kazimierz Kord cond. LONDON OSA 13134 three discs \$26.94.

Performance: **Good to outstanding**
 Recording: **Good**

Don Quichotte, prolific Jules Massenet's twenty-first opera, has had an interesting history. It was introduced spectacularly at Monte Carlo on February 19, 1910, with Feodor Chaliapin making an unforgettable impression in the title role. Then, on December 29 of the same year, Vanni-Marcoux presented his no less illustrious portrayal of the Sorrowful Knight at the Théâtre Lyrique of Paris. For more than a decade these two star basses succeeded in keeping the opera alive: Vanni-Marcoux sang the role in Chicago with Mary Garden as Dulcinée, and Chaliapin brought his interpretation to the Metropolitan for a total of five performances in 1925 and 1926. As these two remarkable singing actors faded, though, so did the opera. It lay dormant for some thirty years, only to reappear in 1957 in, of all places, Belgrade, as a special vehicle for the Yugoslav basso Miro Changelovich, whose gaunt figure seems to have been created for *Don Quichotte*. The Belgrade production toured other European cities with great success and eventually found its way into a recording studio. But the recording (Everest 440/2), deprived of whatever stage felicities the production may have had, was barely adequate. It is easily eclipsed by London's new presentation.

In excellent voice, Nicolai Ghiurov creates a memorable Knight: severe, dignified, and downright other-worldly in the scene where his spiritual force makes the bandits return Dulcinée's stolen jewels. Gabriel Bacquier is also excellently cast as the faithful Sancho. Though obviously past his vocal prime, he remains a vital singing actor and rises to a height of true eloquence in his denunciation of Dulcinée's insensitive guests (Act IV).

In this opera (with a fine libretto by Henri Cain based on a play by Jacques Le Lorrain), Dulcinée is like a Manon of thirty-plus. Régine Crespin understands the role to perfection and commands the right style for it, but her voice no longer obeys the commands of her intellect; it is limited in flexibility and tonal appeal. The rest of the cast is unimportant to the story, but the singers here have the necessary competence and ensemble spirit. The musical direction by Kazimierz Kord is also first-rate, if a bit cool at times and perhaps too restrained emotionally in the final scene. The sonics are a shade overreverberant. Side five on my review copy has too many surface clicks; prospective buyers of the set may want to check this out in advance if possible. *G.J.*

MOZART: *String Quintets (complete)*. John Graham (viola); Juilliard Quartet. COLUMBIA M3 35896 three discs \$26.98.

Performance: **Mixed bag**
Recording: **Well defined**

Since the Juilliard Quartet's recent recording of Haydn's Op. 20 quartets (Columbia M3 34593) is one of the grandest things this group has given us, it is perhaps not surprising that the first and last of Mozart's viola quintets, which happen to be the most conspicuously Haydnesque of the six, are among the most successful segments of this new set. The early K. 174 in B-flat, which may have more of Michael Haydn than of Joseph in it, and the valedictory K. 614 in E-flat both receive stylish and affectionate performances, and the well-defined recording allows one to savor the tone emanating from both violas. The best performance of all, I think, is the enchanting one of K. 593 in D Major, with a particularly alert and flexible presentation of the final movement. The C Minor Quintet is also nobly realized through three of its four movements, but the finale seems curiously indecisive.

The two remaining works, which surely represent Mozart's finest achievements in the realm of chamber music, fare less well. There is much to admire in these performances, but little that is really moving, and hence little real satisfaction. The C Major Quintet (K. 515) seems undervalitized all the way through, as if the performers had not decided whether the work is profound or ebullient, solemn or gay. The towering G Minor (K. 516) similarly lacks the tension essential to so dramatic and passionate a work. Its slow movement, which Alfred Einstein compared to the scene in the Garden of Gethsemane, is here just so many pretty notes, with no emotional thrust at all. The final movement, curiously, comes off just as one hopes to hear it after an ideal performance of the slow movement, as a release from tension on a sublime level; but since this performance provides no tension to be released *from*, the overall effect is one of pervasive blandness.

Should Columbia separate these three discs, however, the first and last would be very much worth considering. *R.F.*

RAVEL: *String Quartet in F Major* (see Best of the Month, page 91)

SCHOENBERG: *Gurrelieder* (see Best of the Month, page 82)

SCHUMANN: *Carnaval, Op. 9; Faschingschwank aus Wien, Op. 26*. Daniel Barenboim (piano). DEUTSCHE GRAMMOPHON 2531 090 \$9.98, © 3301 090 \$9.98.

Performance: **Poetic and zestful**
Recording: **Good**

Daniel Barenboim has obviously not let his extensive conducting activity take the edge off his pianistic prowess, for to both *Carnaval* and Schumann's evocation of Vienna's pre-Lenten festivities he brings all the dexterity one could wish for along with convincing interpretive insights. The opening pages of *Carnaval* here sound splendidly impetuous. There is superbly fine pedal control in the "Arlequin" episode and neatly gauged rubato and dynamic contrast in the "Valse Noble."

(Continued on page 102)



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It is an odd fact that every recording of Debussy's *Pelléas et Mélisande* after the first (that conducted by Roger Desormière) has been greeted by the critical press with some comment that, for better or worse, "it did away with the impressionist haze" and laid bare the orchestral fabric of the music. The Desormière recording came out too long ago for me to know what the reviews of it said, but I have heard it many times and I can tell you that there is no impressionist haze there either. The haze, therefore, at least as far as recordings are concerned, may be pure red herring. So perhaps one should keep this bit

draws from the Berlin Philharmonic, but, so far as I can see, it is no violation of the score either. What will amaze most people, I think, is the openness of it all (here we go with that impressionist haze again). But in this case, at least, I can pinpoint what I mean. For one thing, Karajan uses the full sonority of his strings, and that rather thin nasal string sound characteristic of most French performances gives place here to a voluptuous sonic cushion. The wind instruments and voices are by no means swamped (in fact, the balances are, in most places, near ideal), but they are played off against a rich back-

lez, despite wonderful orchestral detail, to be virtually unlistenable because of some of the singers), but I have no fears that anyone introduced to *Pelléas* through *this* recording would come away with a distorted view of a masterpiece.

As a matter of fact, the characters in *Pelléas* are real, and, when pricked, they bleed. Their suffering is true enough and not a dream from which they will some day awaken. The dream-like ambiance comes from their lack of knowledge of each other, their lack of understanding of each other, and their too passive acceptance of their fate—the last of which is more a medieval state of mind than anything else. Such medievalisms loom large in Debussy's thought and music. "What we have to do," said Debussy, "is to create a musical scenery, a musical atmosphere in which characters move and talk." But he said too, "I also tried to obey a law of beauty that seems notably ignored when it comes to dramatic music: the characters of this opera try to sing like real people, and not in an arbitrary language made up of worn-out clichés."

I think that Karajan and his cast have admirably fulfilled these ideas. Certainly José van Dam is a real and suffering Golaud, not a cardboard figure in some musical tableau. Certainly Richard Stillwell is a frightened but ardent Pelléas, humanly aware of what is happening to him. And certainly Frederica von Stade, even as the mystery-surrounded Mélisande, is not only innocent and evasive, but, when the times come, passionate, despondent, welcoming of death, even tragic rather than pathetic. Christine Barbaux is a superb Yniold (a part assigned, alas, to a boy soprano in the Boulez recording), Ruggero Raimondi is unexpectedly (to me) a warm and idiomatic Arkel, and Nadine Denize produces really beautiful sounds as Geneviève. Pascal Thomas, in the small parts of the Shepherd and the Doctor, is most satisfactory.

THE recording is notable for its clarity, its warmth and beauty of sound, and its exceedingly wide dynamic range—which, in one place at least (the end of side five), may go beyond the distortionless reproducing abilities of some equipment. I find the balances, as I said, estimable—with the possible exception of some episodes in Act II in which the voices at times overpower (!) the orchestra.

In all, it is a splendid production, and the French pronunciation, so important in an opera such as this, is to my ears—excluding only Raimondi, who is passable—really exceptionally fine. Karajan, after years of glossy but rather mannered performances, seems really to have found the right groove. May he give us more like this. —James Goodfriend

DEBUSSY: *Pelléas et Mélisande*. Richard Stillwell (baritone), Pelléas; Frederica von Stade (soprano), Mélisande; José van Dam (baritone), Golaud; Ruggero Raimondi (bass), Arkel; Nadine Denize (mezzo-soprano), Geneviève; Christine Barbaux (soprano), Yniold; Pascal Thomas (bass), Shepherd, Doctor. Chorus of the Deutsche Oper, Berlin; Berlin Philharmonic Orchestra, Herbert von Karajan cond. ANGEL SZCX-3885 three discs \$27.94.



Sinfonietta / Interviewer / Ansel / EMI

At the recording session: Von Karajan, Von Stade, and Stillwell

A Splendid New *Pelléas*

of critical history in mind when listening to the new Angel recording of *Pelléas*, one in which Herbert von Karajan leads an international (mostly non-French) cast and a German chorus and orchestra. Needless to say, there is no haze here either.

I am generally a believer in the national theory of musical interpretation (for reasons I won't go into here), but I admit that I was all but struck dumb years ago with admiration for Karajan's early Angel recording of *La Mer*. Time has not changed my mind about that record, and blind comparative listenings I have subjected friends to have shown me that I am not alone in my response to it. Something of the same quality of mystery and certainly a great deal of the same meticulous attention to changing sonorities permeate this new recording of *Pelléas*. It is not a characteristic *French* sound that Karajan

ground. For a second thing, Karajan takes advantage of a full range of dynamics—both orchestrally and with his singers—and what we get is a down-playing of the dream-like state in which *Pelléas* is supposed to exist and a presentation of *real* characters with *real* emotions.

Now this does not mean that the opera has been transformed into French *verismo*, nor do I find it any more Wagnerian than any other performance of *Pelléas*, nor has the music been excessively romanticized. What Karajan and his cast have done is somewhat parallel to what such pianists as Michelangeli and Moravec have done with Debussy's piano music: they have made it a bigger, stronger, more varied music than performers had dared show us before. Far be it from me to deny the wonders of the Desormière *Pelléas*, or the two recordings by Ansermet (I find the Bou-

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The paraphrase in the "Chopin" episode is beautifully done, and there is a fine lyrical intensity in the "Aveu."

If the *Faschingsschwank aus Wien* fails to arouse in me the same degree of enthusiasm as *Carnaval*, it's not Barenboim's fault. Its five movements largely lack the sustained verve and imaginative quality of Op. 9; the best are the lovely *Romanze* and the mercurial *Scherzino*. But Barenboim makes the most of the musical and virtuosic opportunities throughout. The piano sound is close up but rich and well balanced. *D.H.*

SHOSTAKOVICH: *Three Song Cycles* (see *Best of the Month*, page 84)

RECORDING OF SPECIAL MERIT

VIVALDI: *Complete Sacred Choral Music, Volumes 3 and 4.* *Introduzione al Gloria* (RV 642); *Gloria* (RV 589); *Credo* (RV 591); *Sacrum* (Mass in C Major, RV 586); *In Exitu Israel* (RV 604); *Credidi Propter Quod* (RV 605); *Laudate Dominum* (RV 606); *Laetatus Sum* (RV 607). Margaret Marshall (soprano); Ann Murray (mezzo-soprano); Birgit Finnilä, Anne Collins (contraltos); Anthony Rolfe Johnson (tenor); Robert Holl (bass);

John Alldis Choir; English Chamber Orchestra, Vittorio Negri cond. PHILIPS 6769 032 two discs \$19.96, © 7699 118 \$19.96.

Performance: **Dramatic**
Recording: **Superb**

VIVALDI: *Sacred Music, Volume III.* *Magnificat* (RV 610); *Canta in Prato* (RV 623); *In Furore* (RV 626); *Beatus Vir* (RV 598). Verena Schweizer, Uta Spreckelsen (sopranos); Hanna Schaer (alto); Jean-Pierre Maurer (tenor); Vocal Ensemble and Chamber Orchestra of Lausanne, Michel Corboz cond. MUSICAL HERITAGE SOCIETY MHS 4081 \$5.20 (plus \$1.25 postage and handling charge from the Musical Heritage Society, 14 Park Road, Tinton Falls, N.J. 07724).

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

The more I hear of Vivaldi's religious music, the more I like it. It is powerful stuff: brilliant, dramatic, and durable. Although there are many stunning concertos by the Venetian master, his religious music, from the dozen or so records of it I have studied, is generally on a higher musical plane. These two albums demonstrate no exception. The Vittorio Negri set on Philips is basically devoted to choral

works that include solo sections. The justly celebrated *Gloria* is well known, but preceded as it is here by its proper *Introduzione* it takes on a new light. Of special interest is the inclusion of a complete Mass setting, the breathtaking *Sacrum*. The Michel Corboz disc on MHS contains two choral works and two motets for soprano. The *Magnificat* is a knockout, and the motets are really vocal concertos.

Both albums feature modern forces and display technical perfection. The approaches of the two conductors, however, are quite different. Negri's performances are slick, dramatic ones that strive for the sensational. The opening of the *Gloria*, for example, is played with dazzling speed. Sequential progressions begin almost inaudibly and erupt in violence; sudden dynamic changes and strong accents abound. Although the effect is staggering, Vivaldi emerges like an early practitioner of *Sturm und Drang*. Corboz's attitude is less flamboyant, dwelling on Vivaldi's rhythmic drive and the Baroque concept of unity of mood. It is more solid than Negri's and, in the long run, more satisfying.

All of the solo singing on both albums is excellent, but Margaret Marshall, in the Negri collection, is particularly outstanding. Her voice is warm and full, and she negotiates the perplexing coloratura of the *Introduzione al Gloria* with such ease that she can make her primary purpose the musical result rather than technique. Both Verena Schweizer and Uta Spreckelsen on the Corboz disc have purely focused, white-sounding voices. Their approach is appropriately instrumental. We are not told who sings which motet, but fortunately they are equally fine.

Certainly both these albums are welcome additions to the Vivaldi catalog, and a choice between them is difficult to make. But if you are watching your budget and want just a sampler of Vivaldi's sacred music, the MHS disc should prove most satisfactory. *S.L.*

COLLECTION

JESSYE NORMAN: *Spirituals.* *I Couldn't Hear Nobody Pray; My Lord, What a Morning; Do Lawd, Oh Do Lawd; There's a Man Going Round; Ev'ry Time I Feel de Spirit; There Is a Balm in Gilead; Gospel Train; Great Day; Mary Had a Baby; Live a Humble; Walk Together, Children; Were You There; Hush! Somebody's Callin' My Name; Soon Ah Will Be Done; Give Me Jesus.* Jessye Norman (soprano); Dalton Baldwin (piano); Ambrosian Singers, Willis Patterson cond. PHILIPS 9500 651 \$9.98, © 7300 752 \$9.98.

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

After many distinguished recordings of repertoire ranging from Mozart, Duparc, and Ravel to Verdi and Wagner, Jessye Norman of Augusta, Georgia, here sings music she undoubtedly grew up with. Four of these spirituals are done with Dalton Baldwin's expert piano accompaniments, the other eleven with excellent choral backing. Conductor Willis Patterson is credited with the diversified and sensitive choral arrangements that artfully support and surround the singer. Miss Norman's solos range from hushed pianissimos to vibrant operatic flourishes. She is in sumptuous vocal form, and it would be hard to find this appealing material executed in a more triumphant manner. *G.J.*

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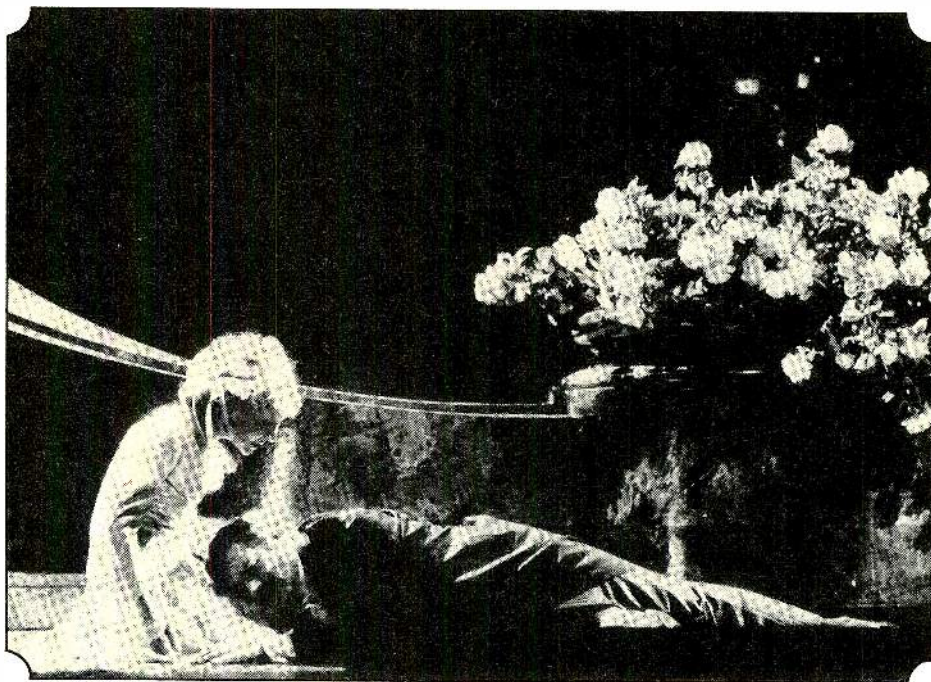
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Berg's "Lulu": Complete at Last

Teresa Stratas as Lulu,
Kenneth Riegel as Alwa



Bernard/Deutsche Grammophon

BELIEVE it or not, the new Deutsche Grammophon recording of Alban Berg's *Lulu*, with Pierre Boulez conducting and Teresa Stratas in the title role, is the opera's fifth recording. Nonetheless, it immediately and completely supersedes all the rest. It is not the intrinsic merits of Boulez, Stratas, or DG—though they are considerable—that account for this absolute superiority, but rather the simple fact that this is, for the first time, a recording of the *complete* work.

The history of *Lulu* has been told many times, but it is worth recalling. When Berg died in 1935, he had finished the first two acts and was working on the third. His widow, Helene Berg, offered it to both Schoenberg and Webern to complete; they refused, and Frau Berg decided to withhold the third act. The work became known, therefore, only in a truncated version: the first two acts plus an orchestral interlude and a version of the final scene, the latter two both taken from the suite Berg made from the opera before his death.

The few musicians who had the opportunity to examine the manuscript all made the same report, that *Lulu* was, in fact, complete except for some of the orchestration in the third act. Berg's publisher, Universal Edition, entrusted the relatively simple task of completing the orchestration to another, much younger Viennese composer, Friedrich Cerha, but it was only after Frau Berg's death in 1976 that they were able to make the full score available. The first production of the complete *Lulu*—directed by Boulez, another (but non-Viennese) Universal composer—was finally unveiled at the Paris Opera in February 1979, and the DG recording based on it has now been released.

Was it worth the wait? Beyond the shadow of a doubt. An incomplete masterpiece is better than none, but Berg's *Lulu* is not incomplete. And in the case of a work as organically conceived—both dramatically and musical-

ly—as *Lulu*, knowing it only in a partial version is absurd.

Lulu is Berg's own condensation of two turn-of-the-century plays by Frank Wedekind about a woman of "free sexuality"—a kind of female Don Giovanni without a list. *Lulu* represents a type of woman that appeared in bourgeois European society in the nineteenth century to trouble men's dreams—and, for some, the waking hours as well. Her natural freedom and sensuality were provocative and disturbing, and so was the idea of putting such things on the stage. (There was also a movie version, starring the American actress Louise Brooks, something of a *Lulu* herself. Interested *Luluphiles* will want to read Kenneth Tynan's arresting interview with Miss Brooks in the *New Yorker* for June 11, 1979.) *Lulu* profoundly disquiets the overcivilized world around her—and not with any happy result. Her "before the fall" sensual innocence causes disaster and anguish for herself and others. Wedekind called his second play *Pandora's Box*; when the seal of the forbidden is broken, trouble and woe escape into the world.

BERG's organization of this material is astonishing. The opening act is a black comedy of passion as *Lulu* runs through a series of admirers and husbands. The first husband dies of a stroke and the second kills himself. The third—this is in the second act—finds her surrounded by other men and tries to make her kill herself; predictably, she shoots *him* instead. This is literally the turning point of *Lulu*'s fortunes, and of the opera. A film sequence—common enough nowadays, but a novelty when the opera was written and first produced—shows *Lulu*'s arrest, conviction, and imprisonment. Her female lover (!), the Countess Geschwitz, takes her place in prison. *Lulu* then runs off to Paris with her murdered third husband's son (!!), who is, in Berg's version, a composer (!!!).

In Paris (it's now the third act), *Lulu* and the composer (Alwa) fall in with a group of characters who are, if anything, even more unsavory than the ones they left behind (one of them wants to sell *Lulu* to an Egyptian brothel). Amid gambling, drinking, and fraudulent stock-market dealings, someone betrays *Lulu* to the police. She barely manages to get away again with Alwa, this time to London and still deeper poverty. Their ménage is swelled by the lesbian countess and a curious old man who is either *Lulu*'s father or an early lover—it is never very clear which. She now has no choice but to take to the street. One of her customers gets rough and kills Alwa when he tries to interfere. *Lulu*'s last client turns out to be Jack the Ripper, who kills her and stabs the countess as well. The countess lives only long enough to say a final benediction over poor *Lulu*'s body.

CHARMING story, charming people, no? Only *Lulu*, the heedless, careless child of nature, and, to a limited degree, Alwa are anything more than despicable. In the old, two-act version, even *Lulu* comes across as merely a heartless bitch who is punished for her fatal attractiveness to men. But in the complete opera, something far grimmer comes to the surface. Act III makes it clear that *society* destroys *Lulu* as a reaction to her free spirit and transgressions against its mores. The moment she loses her youthful bloom, her men are no longer there to protect her, and she is left to the mercy of the Jack the Rippers of this world. The complete opera presents a fundamentally different portrait of *Lulu* than the fragment does.

In the dramatic form Berg gave *Lulu*, together with his rich and complex music, everything is bound together. Like *Wozzeck* earlier, *Lulu* has strict and even traditional operatic forms underlying its scenes, but, unlike *Wozzeck*, the music itself is entirely

twelve-tone. Different forms of the tone row (and different instrumentations) are associated with the different characters; the opera is a positive maze of thematic and instrumental cross-references—the ultimate in Wagnerian leitmotiv construction. How much of all this is audible? Not much, really; but it seems somehow to work on a subconscious level. The vocal parts include everything from speaking to *Sprechgesang* (the “song-speech” invented by Schoenberg) to pure, pitched song, but it is all most carefully organized.

Berg has always been described as the most romantic and traditional composer of the so-called Second Viennese School, and there is a famous letter of his in which he praises Wedekind’s own emphasis “on the sensual” as pointing the new direction in art. And yet I wonder. Underlying the sensuality—I would hardly call it “romanticism”—of *Lulu* is an almost mystical (even numerological) belief in the value of form harnessed to a virtual *Psychopathia Sexualis* set to music. I say this with an equal mixture of admiration and dismay. Lord save us from all this musical and dramatic Freudianism, this old-fashioned expressionist neurotica! And yet, it is extraordinary. The truth is that the mythology/pathology of sex has *always* been the great subject of opera, and certainly Berg was

Also outstanding in the large cast is Kenneth Riegel as Alwa; his part is beautifully sung, if not as clearly characterized as Stratas’ Lulu. The same might be said of Yvonne Minton’s Countess Geschwitz. Two of the low-register male singers, Gerd Nienstedt and Toni Blankenheim, are also very impressive. Like several others in the cast, each sings more than one role; this procedure is not merely a matter of convenience (or economy) but a logical expression of Berg’s formal scheme. For example, Lulu’s customers in the final scene correspond to her husbands in the first act, and Jack the Ripper (who kills her) is a weird mirror image of her third husband, Dr. Schön (whom she kills).

There was, of course, no more logical choice for music director of this project than Pierre Boulez—long a pariah in his own country but now an honored prophet of the new music everywhere, even in France. Boulez in this recording brings out all of Berg’s thought with great clarity while losing nothing of the opera’s dramatic power. The expressionism, the anguish, the neurasthenia take care of themselves. Most miraculous is that he turns the Paris Opera Orchestra—not one of the world’s great ensembles, and certainly no exponent of twentieth-century music—into an impressive-sounding unit. The recording quality itself is first-rate, Deutsche Grammophon style.

There are some curious details. For example, the countess mutters something at the very end before she dies that is incomprehensible to my ears and does not appear in the libretto. What is it? On a larger scale, some purists might object to the rather summary treatment of the transitions between speech and song, which are so carefully indicated by Berg but so hard to realize in practice. Boulez’s *ad hoc* solutions are not entirely consistent, but they are perfectly satisfactory from a listener’s perspective, so I won’t quibble about them. The opera actually takes up only seven sides of this four-disc set; the eighth holds recorded commentary in three languages, which seems a bit redundant considering that the same talks are printed (in *four* languages) in the sumptuous accompanying booklet.

THE bottom line is that this is an excellent recorded realization of the long-awaited complete version of this grotesque but moving masterpiece. More than ever, it seems to me that Berg wrote *finis* to the great old tradition. *Lulu*, in its lurid brilliance, is not at all a work of the future but the last great grand opera. —Eric Salzman

BERG: *Lulu*. Teresa Stratas (soprano), Lulu; Yvonne Minton (mezzo-soprano), Countess Geschwitz; Hanna Schwarz (mezzo-soprano), Groom, Dresser, High-school Boy; Kenneth Riegel (tenor), Alwa; Toni Blankenheim (baritone), Dr. Goll, Schigolch, Police Officer; Robert Tear (tenor), Painter, Negro; Franz Mazura (baritone), Dr. Schön, Jack the Ripper; Gerd Nienstedt (bass), Animal Tamer, Athlete; Jules Bastin (bass), Theater Manager, Banker; others. Paris Opera Orchestra, Pierre Boulez cond. DEUTSCHE GRAMMOPHON 2711 024 four discs \$39.92, © 3378 086 \$39.92.

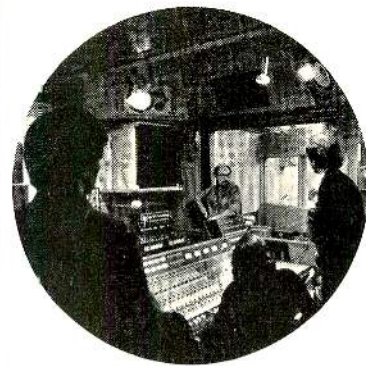


German actor and writer Frank Wedekind, creator of the character of Lulu

one of the great masters of that subject and of the operatic form. Is *Lulu* beautiful? Hardly. But it is, on some level, both truthful and, in the best sense, operatic.

IMUSTN'T lose track of Boulez and Stratas and the new recording. Stratas first. She is wonderful. Just as she was the saving grace of the recent Metropolitan Opera production of Brecht and Weill's *Mahagonny*, so she is the lodestar for this other operatic product of the Thirties. She manages the difficult score very well, but even more important is that she is a singing actress who can act with her *voice*. I know of no greater challenge than *Lulu* in the operatic literature, and this recording shows that she is fully equal to it.

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"GIVE us the luxuries of life," John Lothrop Motley said to Oliver Wendell Holmes, "and we will dispense with its necessities." A noble challenge, but it's easier said than done. One of the joys of record collecting—undeniably a luxury pursuit—over the years has been the Vox Box, a three-disc bargain format that enables those who love classical music in complete sets (all of so-and-so's symphonies, concertos, chamber music, sonatas, or whatever) to fill out their collections without having to give up eating or paying the rent. Hundreds of Vox Boxes have been released, offering every sort of music, from early-American string quartets to the complete piano music of Chopin, at notably modest prices. The performers are not always of the most exalted international reputation—though some are—but they rarely fall below standard, and the quality of both the sound and the pressings compares favorably with that of far more costly labels. Now the Moss Music Group, which last year took over Vox, Turnabout, and Candide, has redeemed an old promise: the *cassette* Vox Box. At last we can take our Vox Boxes with us when we travel!

The initial release includes a dozen sets of three cassettes each, and they augur well for things to come. The cassette trios are sensibly packaged in boxes measuring 6 x 9½ x 1 inch—just right for an average book shelf. Each includes a booklet of sane, informative notes printed in a type size it's possible to read without a magnifying glass. Technically, the tapes represent no sonic breakthroughs such as were achieved by the Advent and In Sync/Connoisseur Society prerecorded cassettes, but on most of them the Dolby-processed sound is crisp and clean. What these releases *do* represent is a breakthrough in cassette repertoire, and they come at the refreshingly modest list price of \$15.98 per set.

So what's in the boxes? Pianist Peter Frankl, to start, playing Schubert and Debussy. He may not be the most intoxicating keyboard artist in the Impressionist repertoire, but his two Vox Boxes of Debussy's complete

piano music have long been admired for their sturdy treatments of those dreamy works, quite passably recorded. The first cassette volume—the second should be released before the end of this year—includes Book One of the *Préludes*, Book One of the *Images, Estampes, Pour le Piano*, the *Children's Corner* Suite, and a sprinkling of individual short pieces. Frankl's Schubert is even more satisfying (he seems more at home with it), and the box includes such favorites as the *Impromptus*, the *Moments Musicaux*, and the *Wanderer* Fantasy, plus lots more.

The albums recorded for Vox in recent years by the St. Louis Symphony have often been very satisfying, especially in four-channel playback, so it is good to see several of them turn up in the new format. Jerzy Semkow leads in a generally persuasive set of the Schumann symphonies, and Leonard Slatkin conducts on a lavish Gershwin box with Jeffrey Siegel at the piano. Slatkin's tempos may be a bit sluggish at times here, but the sound, as on the original discs, is breathtaking, and where else on cassettes could one find such rarities as the lullaby movement from an early string quartet, or even the often-recorded Second Rhapsody for Piano and Orchestra?

Slatkin and the St. Louis show up again, this time with the colorful pianist Abbey Simon, in a box holding all four piano concertos and the *Paganini* Rhapsody of Rachmaninoff. Simon is featured in other sets, playing all of Chopin's works for piano and orchestra with the Hamburg Symphony conducted by Heribert Beissel and luxuriating on his own with the complete solo-piano music of Ravel. Organist Anthony Newman is exciting—if perhaps exasperating to stylistic purists—in Volume 1 of his traversal of Bach's twenty-four organ preludes and fugues, which includes quite a few other works, and that most popular (and most recorded) of contemporary flutists, Jean-Pierre Rampal, stars in a box devoted to Beethoven's complete chamber music for flute.

Cellist Zara Nelsova, violinist Ruggiero Ricci, and pianist Rudolf Firkusny are the impeccable soloists, again with the St. Louis

Symphony, in a box holding all of Dvořák's concerted works. Maurice Abravanel and the Utah Symphony seem resoundingly fit in Volume 1 of Grieg's orchestral works (will there be a Volume 2?). And though the Minnesota Orchestra under Stanislaw Skrowaczewski cannot compete in terms of sheer sensuousness with the Angel albums of Jean Martinon and the Orchestre de Paris, their set of Ravel's complete orchestral works is still uncommonly exciting.

A SECOND series of three-cassette boxes is promised soon, with additional releases every season. The next batch is slated to include Haydn's piano concertos with Ilse von Alpenheim as soloist and the Bamberg Symphony under Antal Dorati, the Utah Symphony in Tchaikovsky's tone poems, all three of Tchaikovsky's piano concertos and the Concert Fantasy with Michael Ponti and the Orchestra of Radio Luxembourg under Louis de Froment, and the first of two volumes of Debussy's complete orchestral music with De Froment and the same orchestra. I'll be glad to have those too—but I do hope, for the sake of us compulsive collectors, that the Moss Music Group doesn't wait too long before getting around to all those promised second volumes! —Paul Kresh

J. S. BACH: *Twenty-four Organ Preludes and Fugues, Volume 1.* Anthony Newman (organ). CBX 5479.

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CHOPIN: *Complete Works for Piano and Orchestra.* Abbey Simon (piano); Hamburg Symphony Orchestra, Heribert Beissel cond. CBX 5126.

DEBUSSY: *Complete Piano Music, Volume 1.* Peter Frankl (piano). CBX 5432.

DVOŘÁK: *Complete Works for Solo Instrument and Orchestra.* Zara Nelsova (cello); Ruggiero Ricci (violin); Rudolf Firkusny (piano); St. Louis Symphony Orchestra, Walter Susskind cond. CBX 5135.

GERSHWIN: *Complete Works for Piano and Orchestra.* Jeffrey Siegel (piano); St. Louis Symphony Orchestra, Leonard Slatkin cond. CBX 5132.

GRIEG: *Complete Orchestral Works, Volume 1.* Utah Symphony Orchestra, Maurice Abravanel cond. CBX 5140.

RACHMANINOFF: *Complete Works for Piano and Orchestra.* Abbey Simon (piano); St. Louis Symphony Orchestra, Leonard Slatkin cond. CBX 5149.

RAVEL: *Complete Orchestral Music.* Minnesota Orchestra, Stanislaw Skowaczewski cond. CBX 5133.

SCHUBERT: *Solo Piano Music.* Peter Frankl (piano). CBX 5487.

SCHUMANN: *Symphonies Nos. 1-4; Manfred Overture.* St. Louis Symphony Orchestra, Jerzy Semkow cond. CBX 5146.

Popular Discs and Tapes



Reviewed by CHRIS ALBERTSON • EDWARD BUXBAUM • NOEL COPPAGE • PHYL GARLAND
PAUL KRESH • PETER REILLY • STEVE SIMELS • JOEL VANCE

DONALD ASHWANDER: *Turnips*. Donald Ashwander (electric harpsichord, cordiana, rhythm box, piano). *State Line; Turnips; Reason's Fee; Bay Breeze; Little Saints Hopping; Morning Song; Causeway Blues; Laurel;* and six others. UPSTAIRS Upst-1 \$7.98 (from New Music Distribution Service, 6 West 95th Street, New York, N.Y. 10025).

Performance: **Plinky pastiches**
Recording: **Very good**

Donald Ashwander is a composer-performer with the Paper Bag Players, a children's theater company for which he writes music in a latter-day ragtime idiom. His instruments include a piano, a rhythm box, and an electric harpsichord, and he coaxes all kinds of intriguing effects from them. Ashwander's skill as a performer makes happy music out of his pastiches of cakewalks, rags, and gimmicky bagatelles (such as his *Little Saints Hopping*, which skips back and forth between the loudspeakers). There are hymn-like items—*Mulberry* and *Alabama Backroads*, for example—to provide moments of melodic tranquility among the sprightlier pieces. In the long run, however, Ashwander is not quite inventive enough for his music to make up a full-length program, and the fun runs out before the album does. P.K.

ATLANTA RHYTHM SECTION: *Are You Ready?* Atlanta Rhythm Section (vocals and

instrumentals). *Champagne Jam; Back Up Against the Wall; Imaginary Lover; Large Time; So into You; Long Tall Sally;* and eight others. POLYDOR PD-2-6236 \$11.98, © 8T-2-6236 \$11.98, © CT-2-6236 \$11.98.

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

This live set is a musical boosters' meeting where local fans and the Atlanta Rhythm Section celebrate each other in much the same way Bob Seger and Detroiters do. It opens with a mix of the cheering crowd and a snippet of *Tara's Theme* from Max Steiner's score for *Gone with the Wind* (Charles Gerhardt conducting the National Philharmonic Orchestra). The closing piece—the only other number not written by the band—is *Long Tall Sally*, made famous in 1956 by fellow Georgian Little Richard.

The selections constitute a retrospective of the band's career; as usual, the performances are highly professional and sometimes emotional even if laid-back. Although I recognize their skill, I've never been able to enjoy the Atlanta Rhythm Section very much. I suppose it's because I affectionately remember the sentimental (and first-rate) ballads Buddy Buie and J. R. Cobb wrote for the Classics IV a decade ago, when the members of the Atlanta Rhythm Section were studio musicians playing delicious little licks. Now they play thoughtful *large* licks, and somehow I just don't find them as congenial. J.V.

RECORDING OF SPECIAL MERIT

MICHAEL BLOOMFIELD: *Between the Hard Place and the Ground*. Michael Bloomfield (guitar, vocals); Roger Troy (vocals, bass); Bob Jones (drums); Ira Kamin, Mark Naftalin, Barry Goldberg (keyboards); Mark Adams (harmonica). *Lights Out; Big Chief from New Orleans; Orphan's Blues;* and four others. TAKOMA TAK 7070 \$7.98.

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

Michael Bloomfield was one of those guitar whiz kids of the 1960s for whom much was

claimed and more was promised. But neither critics nor audiences really listened to what they played or how they played it. Everyone was looking for someone to worship, and Bloomfield, along with Johnny Winter and Eric Clapton, was a candidate in the messiah sweepstakes. Fortunately, all three of these technically skilled blues guitarists survived the hoopla. Winter has become more simplistic and Clapton more versatile, but Bloomfield seems to be having the best time.

The best cuts on Bloomfield's newest effort are *Kid Man Blues*, written by Sleepy John Estes, and Robert Brown's *Orphan's Blues*. Both have lyrics whose content, characterization, and plot raise them above the ordinary blues pounder, and both feature Bloomfield at his best vocally. The outstanding vocal, though, is that of Bloomfield's pal Roger Troy on *Your Friends*, which isn't much of a tune but gets exquisite treatment from Troy, whose voice is as warm and thick as country wine and whose phrasing is terrific. Speaking of wine, I think I'll have a glass and offer a toast to all good musicians everywhere: may they play what they like and still pay the rent, amen. Keep it up, Mike. J.V.

ANGELA BOFILL: *Angel of the Night*. Angela Bofill (vocals); orchestra. *Try; Love to Last; The Voyage; The Feelin's Love;* and four others. ARISTA GRP 5501 \$7.98, © G8T 5501 \$7.98, © GCT 5501 \$7.98.

Performance: **Smooth**
Recording: **Smooth**

Dave Grusin's arranging and conducting for Angela Bofill have smoothed the rough edges off one of the hotter newcomers with all the zip and zap of an electric vegetable peeler. Miss Bofill, still very young but already hugely successful and giving off the scent of one to whom Big Things Are About to Happen, now stands before us as smooth and glistening as a machine-cut French fry. About the only thing left that sounds as if she might have been born with it is her delightful little jump from time to time into a makeshift coloratura. It's absolutely charming. What isn't at all charming is the way she's being pushed here—far

Explanation of symbols:

- Ⓢ = open-reel stereo tape
- Ⓣ = eight-track stereo cartridge
- ⓐ = stereo cassette
- Ⓛ = quadraphonic disc
- Ⓜ = digital-master recording
- Ⓛ = direct-to-disc

Monophonic recordings are indicated by the symbol Ⓜ

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

beyond her current capabilities and with little regard for helping her develop a unique or characteristic style. At this rate Bofill is on her way to becoming the Melba Moore of her generation. *P.R.*

CINDY BULLENS: *Steal the Night.* Cindy Bullens (vocals, guitar, piano, harmonica, percussion); instrumental and vocal accompaniment. *Full Tilt Rocker; Real to Real; Raincheck on Romance; Holding Me Crazy; Hurry Up Forever;* and five others. CASABLANCA NBLP 7185 \$7.98, © NBL8 7185 \$7.98, © NBL5 7185 \$7.98.

Performance: **Strident**
Recording: **Thick**

Cindy Bullens tried hard to be a sexy rocker on her first album, and she tries even harder this time around. It still doesn't work. She confuses the simplicity of high-energy rock with loud banality. Her guitar twangs and twangs, her voice keens and keens, and her songs are all about whether the heroine did or didn't, wants to or doesn't want to, or will or will not get laid. That ordinarily interesting topic sometimes provides pithy material for a performer to work from, but Bullens' writing and performing are so calculated I get the impression she's more worried about whether she will or will not be a star. She has good grounds for worry on that score. *J.V.*

DR. HOOK: *Sometimes You Win.* Dr. Hook (vocals and instrumentals); vocal and instrumental accompaniment. *Better Love Next Time; In Over My Head; Sexy Eyes; Oh! Jesse; Love Monster;* and five others. CAPITOL SW-12018 \$7.98, © 8XW-12018 \$7.98, © 4XW-12018 \$7.98.

Performance: **Snake-eyes**
Recording: **Good**

Apropos the title here, you might say that Dr. Hook played music and music lost. That is, there is *some* music here, although not much. Actually, my feeling about the band remains pretty much the same: it can be entertaining when you can *see* it, *and* when Ray Sawyer (the one with the eye patch) is fronting it and singing lead, *and* when the song is by Shel Silverstein. Unfortunately, this album continues the group's recent practice of almost always featuring Dennis Locorriere (the one with the guitar, beard, and crying, cloying voice) on the vocals and of using songs apparently certified by some possibly dated market research. It goes so far as to include some awful country-and-disco things by Even Stevens and Eddie Rabbitt. It does include a couple of nice but humdrum items that Silverstein wrote with Sawyer; a little of the Silverstein *élan* comes across in them, although they're far too straight. And there are a couple of other nice, humdrum, straight songs, and a couple that are not quite so straight or humdrum by Sam Weedman. But the treatment blends it all into a kind of mush. Behind Locorriere's exaggerated and tiresome singing, the instrumentals are competent but faceless, probably because the band had, as usual, too much studio help (eleven additional instrumentalists, no less, plus three back-up singers). That only adds to my feeling that this thing is designed to *sell* and practically nothing more. *N.C.*

YVONNE ELLIMAN: *Yvonne.* Yvonne Elliman (vocals); vocal and instrumental accom-

paniment. *Love Pains; Savannah; Rock Me Slowly; Everything Must Change;* and six others. RSO RS-1-3038 \$7.98.

Performance: **Big Mac**
Recording: **Overdone**

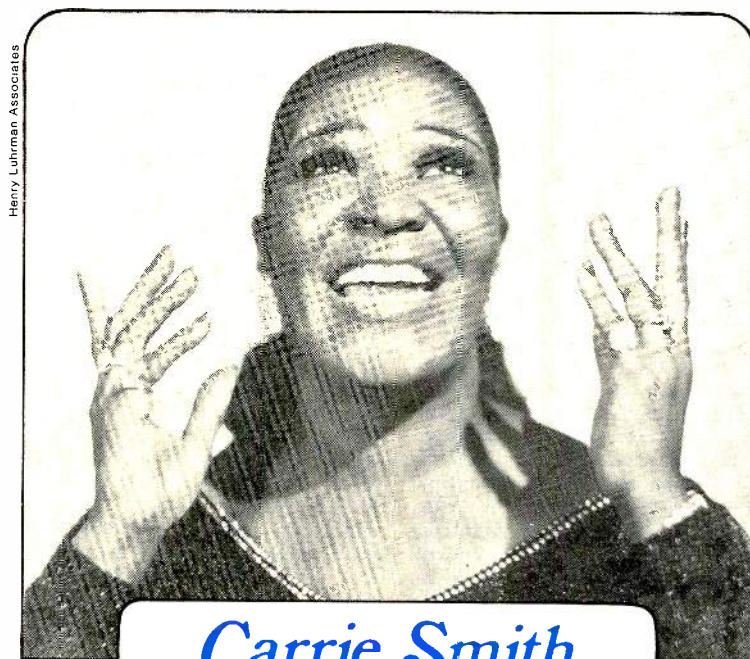
Undoubtedly Yvonne Elliman of *Jesus Christ Superstar* fame has her admirers. Unfortunately I'm not one of them. There is an inanimate, programmed quality to her performances that consistently puts me off after the first few bars. *Love Pains*, for example, starts off well enough, but by the second chorus my attention has evaporated. Not because it's one of those dizzy pieces of disco ephemera, but simply because Elliman never bestirs herself enough to create the unexpected. Not in that track nor in any of the others. The album is overproduced, overarranged, and about as full of the thrill of discovery as a bite into the billionth Big Mac sold. *P.R.*

JOHN FAHEY: *Visits Washington, D.C.* John Fahey (guitar). *Silver Bell/Cheyenne;*

Ann Arbor; The Discovery of Sylvia Scott; Guitar Lamento; and two others. TAKOMA TAK 7069 \$7.98.

Performance: **Terrific to tedious**
Recording: **Good**

I don't know what the title of this has to do with anything, but Fahey can be that way with titles. What he calls *The Discovery of Sylvia Scott*, for example, is actually a medley of *Old Folks at Home, Good Night Ladies, Old Black Joe,* and *Dixie.* He's still playing what he calls "American primitive guitar," unaccompanied here except for a second guitar in *Silver Bell* (played by Richard Ruskin), and he's still able to achieve an elegant simplicity that's almost mesmerizing. But here he opts for a somewhat bigger, looser sound, a little closer to the one Leo Kottke makes, picking two (or more) melodies at once sometimes, letting the low E-string whap against the frets, keeping the mike rammed down the guitar's throat. He also waxes moodier and more experimental as a



Carrie Smith

CARRIE SMITH, whose new Classic Jazz album is called "Do Your Duty," sings the way Pearl Bailey always seemed to promise *she* would someday. Smith has the same luscious tone, the same relaxed yet dynamite way with a lyric Bailey once had, but she never glances off her material, never fakes it, never ever lets her ego devour a song so that it becomes a mere prop for her personality. *Deed I Do* here, for instance, is a song that's been around long enough that taking liberties with it could be justified as stylization; Smith, however, tackles it straight on, giving it an all-stops-out reading that would *make* it a pop-jazz classic if it weren't one already.

She also does an *I Cried for You* that's so good it suggests how Bessie Smith (!) might have recorded it and a version of W. C. Han-

dy's *Careless Love* that's about as good as I ever expect to hear. My own favorite track is Big Bill Broonzy's *Give Your Mama One Smile.* Carrie Smith makes this song totally her own in a performance full of guts, humor, soul, and beauty. "Do Your Duty" is an extremely fine album by an artist who surely deserves to be a lot more widely known.

—Peter Reilly

CARRIE SMITH: *Do Your Duty.* Carrie Smith (vocals); instrumental accompaniment. *Don't Be That Way; Deed I Do; Please Send Me Someone to Love; Careless Love; Give Your Mama One Smile; Everybody Loves My Baby; I Cried for You; Do Your Duty; All of Me.* CLASSIC JAZZ CJ 139 \$7.98.



Columbia Records

Gilmour, Waters, Mason, Wright
Pink Floyd

PINK FLOYD never did get in step with the cybernetic Seventies, and now's the time to praise stubborn "progressive rock" groups. For the Pink has turned out its biggest project yet, progressive rock of the old school all the way. It's called "The Wall," and it is the most musical ambitious rock undertaking since "Tommy."

Since it is about something, "The Wall" makes such recent Pet Sounds, Part Two albums as Fleetwood Mac's "Tusk" seem like cotton candy by comparison, and it goes just about everything since "Tommy"-era Who at least one better in the matter of sound as well—although you'd have a hell of a time trying to make pet sounds out of some of these. Punctuated in just the right places with glorious vocal choruses and subtle-to-prodigious rock-band orchestral effects, it explores areas of tonal color and vocal-instrumental textures most rock stars never dreamed existed. A composer would simply have to be conversant with classical music to come up with some of these ideas, yet the stuff is what we used to call "accessible" back in the days when progressive rock could be rather thick. You don't have to be musically sophisticated to appreciate what these tonal and textural explorations do for the old viscera, and you don't have to be a graduate of several Van Dyke Parks albums to follow the lyrics. I frankly don't see how it can miss, no matter what the new decade thinks it wants.

"The Wall," as evoked mostly in the writing of Robert Waters, is certainly something to be up against, something to have one's back to, something the writing is written on, varying from one song to another—but the understanding throughout the album is that it's primarily something one builds around oneself. The songs deal with the various causes and effects of this. There's Mom, of course ("Hush now baby, don't you cry/Mama's gonna make all your/Nightmares come true/Mama's gonna put all her fears into you"), and Teacher, and the whole damned society. The theme reaches a culmination of sorts in *The Trial*, and what the

prisoner's on trial for is showing feelings. This is set up by *Waiting for the Worms*, in which our hero, his wall completed, is "Sitting in a bunker here behind my wall/Waiting for the worms to come/In perfect isolation here behind my wall/Waiting for the worms to come/ . . . Waiting for the final solution." In *The Trial*, the judge is called Worm.

ALTHOUGH it does have this big, rich sound I find so engrossing, and although it does deal, from various angles, with what probably still is the most damaging psychological offshoot of modern times, the album is not "progressive" in the absolute sense. It reminds us that "progressive rock" really meant being sort of progressive—within a limited and pretty-well-defined form. (Even within that, "The Wall" doesn't try everything; the rhythms, for example, are straight-ahead, even cut-and-dried.) It is a rock album, aimed at a point on the wall where practically all the rock audience can reach. Once they've reached it, it encourages them—their ears, at least—to reach still further. Best example I've heard in a long time of why I thought rock could actually be a framework worth building on. It's an imposing edifice, even more so once it has lured you inside.

—Noel Coppage

PINK FLOYD: *The Wall*. Pink Floyd (vocals and instrumentals); Bruce Johnston, Toni Tennille (vocals); other musicians. *In the Flesh?*; *The Thin Ice*; *Another Brick in the Wall*; *The Happiest Days of Our Lives*; *Mother*; *Goodbye Blue Sky*; *What Shall We Do Now?*; *Young Lust*; *Don't Leave Me Now*; *Empty Spaces*; *Goodbye Cruel World*; *Nobody Home*; *Vera*; *Comfortably Numb*; *Run Like Hell*; *The Trial*; *Outside the Wall*; *Another Brick in the Wall, Parts II and III*; *One of My Turns*; *Hey You*; *Is Anybody Out There*; *The Show Must Go On*; *Bring the Boys Back Home*; *Waiting for the Worms*; *Stop*. COLUMBIA PC2 36183 two discs \$13.98, © P2A 36183 \$13.98, © P2T 36183 \$13.98.

composer. *Ann Arbor* is built around *Railroad Bill*, and *The Grand Finale* incorporates *Camptown Races*, but *Melody McBad*, the big item on side two, is considerably more abstract. I find it meandering and hard to listen to; it segues from one theme to another smoothly enough, but the "themes" are sometimes nothing more than grating little collections of effects and guitar idioms, and it's difficult to see how, say, theme number four relates to theme number two. Nevertheless, there is, as usual, a lot of the flavor of America in the album, and John Fahey's guitar still sings. N.C.

THE HI-LO'S: *Back Again*. The Hi-Lo's (vocals); orchestra, Rob McConnell arr. and cond. *Misty*; *I Remember You*; *When Sunny Gets Blue*; *My Funny Valentine*; *Come Rain or Come Shine*; and five others. PAUSA PR 7040 \$7.98.

Performance: **Just like old times**
 Recording: **Good**

Listening to this new recording by the Hi-Lo's—Clark Burroughs, Bob Morse, Gene Puerling, and Don Shelton—is like driving a fin-tailed car with pushbutton transmission, watching an early Debbie Reynolds movie, or being in an airport waiting room and realizing that the woman seated alone across from you is Betty Hutton. None of it is unpleasant or particularly remarkable, but it is slightly eerie all the same. Funny how the past keeps tumbling, unannounced, into the present. The Hi-Lo's sound exactly the way they sounded back in the days when they rode the charts as one of the most popular music groups (in the pre-Beatles sense of "group"), and this release ought to be a joy for all their old fans. The vocal arrangements by Gene Puerling and the orchestral ones by Rob McConnell tenderly re-create the sound that used to pop up on every second AM station you dialed. They ramble through a collection of standards here, at their best in *Misty*, at their mechanical worst in *I Remember You*. If you close your eyes it really is just like old times. Almost. P.R.

PHYLLIS HYMAN: *You Know How to Love Me*. Phyllis Hyman (vocals); instrumental accompaniment. *You Know How to Love Me*; *Some Way*; *Under Your Spell*; *This Feeling Must Be Love*; *But I Love You*; and four others. ARISTA AL 9509 \$8.98, © A8T 9509 \$8.98, © ACT 9509 \$8.98.

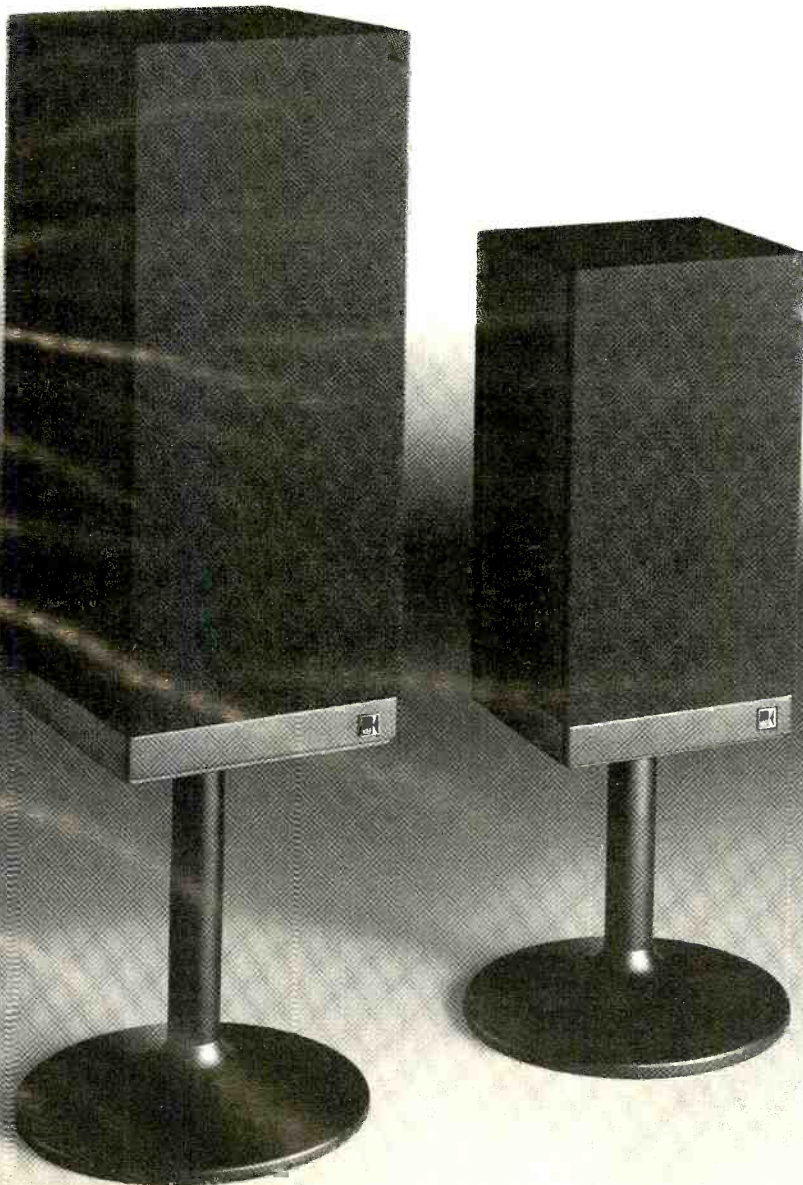
Performance: **A waste**
 Recording: **Satisfactory**

Alas, poor Phyllis Hyman. Every time it seems she's beginning to move in a direction that could develop her considerable potential as a singer and stylist, she's drawn back into such mediocrity that my only response is a moan of profound disappointment. Though her last album (her first for Arista) sparkled with a hint of personal identity, this new set is tediously reminiscent of her debut album, which was remarkable for the way it squeezed a large talent into a tiny box. Someone, somewhere, should be able to come up with the proper songs, arrangements, and settings to highlight what has always promised to be a major talent, instead of again subjecting us to songs that all sound amazingly like each other and also like just about everything else Hyman has recorded. Phyllis Hyman
(Continued on page 112)

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could be a class act and should be treated as such, but no one seems to know how—or care. P.G.

RECORDING OF SPECIAL MERIT

THE INMATES: *First Offense*. The Inmates (vocals and instrumentals); other musicians. *Love Got Me; Midnight to Six Man; The Walk; You're the One That Done It; Jealousy*; and six others. POLYDOR PD-1-6241 \$7.98, © 8T-1-6241 \$7.98, © CT-1-6241 \$7.98.

Performance: **Derivative, but so what?**
Recording: **Good**

In case you've wondered, the Inmates are the guys who do that hot remake of the mid-Six-

ties proto-punk classic *Dirty Water* (allegedly written about early curfews at the girls' dorms at Boston University) that you've been hearing on the radio lately. If the test of a cover version is whether it cuts the original (in this case, by the legendary Standells), it's safe to say this one does: it's faithful without being slavish (no harmonica solo), considerably more energetic, and silly without being camp.

The rest of the album reveals the Inmates as an incredible throwback, a rock-and-blues band straight out of the Marquee Club circa 1965, complete with a Jagger/Morrison soundalike on vocals, Chuck Berry licks from the guitarists, and even an imitation David Bailey cover photo. Yes, it's all as retro as can

be; no depths are plumbed, no new licks discovered, and emotionally the Inmates' songs are just as shallow as George Thorogood's. But, as with Thorogood, they're also terrifically entertaining, probably *because* they're so proudly reactionary. I'd say grab this and worry later about what it means. S.S.

RECORDING OF SPECIAL MERIT

WAYLON JENNINGS: *What Goes Around Comes Around*. Waylon Jennings (vocals, guitar, banjo); vocal and instrumental accompaniment. *I Ain't Living Long Like This; Another Man's Fool; Ivory Tower; Come with Me; If You See Her*; and five others. RCA AHL1-3493 \$7.98, © AHS1-3493 \$7.98, © AHK1-3493 \$7.98.

Performance: **Civil-tongued Waylon**
Recording: **Good**

Every now and then Waylon Jennings does this kind of album, possibly because of a streak in him that is on Governor Jerry Brown's wavelength when Brown does his "lowered expectations" talk. What it pushes, basically, is a kind of modesty. Its saving grace is that *Waylon Jennings* is doing it and not some clod who's got a lot to be modest about. The most recent parallel to this is "Are You Ready for the Country," but the most recent aesthetically *successful* parallel is "Dreamin' My Dreams." This one isn't that good—there is just too much on the first side that's low-profile and laid-back and civilized to the point of being throwaway—but it's an ingratiating little sucker in its quiet way.

Ironically, "What Goes Around" starts with a rocking version of Rodney Crowell's *Ain't Living Long Like This*, basically a rock song. But the balance of the album indicates Waylon pulling back, perhaps a bit dazed after the fury of energy that went into "I've Always Been Crazy," which may be his best album yet. There are places where the vocals should be louder—another characteristic of "Dreamin' My Dreams" and stylistically in keeping with the placid nature of several of the songs. But musically solid songs are scattered on the first side and packed more tightly on the second, and through most of side two you can just groove on the melodies and the mighty voice. The band has its usual sparkle, and in a song that stands out, *Out Among the Stars*, a ballad about robbery and disaster, Carter Robertson, the female vocalist in Jennings' road band, sings a strange non-harmony line that is just right. All in all, it's a "different" kind of Jennings album—conservation-oriented, you might say—but I'll bet you wind up playing it more than you thought you would. N.C.

ELTON JOHN: *Victim of Love*. Elton John (vocals, keyboards); vocal and instrumental accompaniment. *Johnny B. Goode; Thunder in the Night; Spotlight; Born Bad*; and three others. MCA MCA-5104 \$7.98, © MCAT-5104 \$7.98, © MCAC-5104 \$7.98.

Performance: **Background Elton**
Recording: **Biggest beat yet**

Invincible Elton John is once again in our midst. This time, though, he's somewhat vincible in that he's in company with the Biggest Beat in Captivity—a sort of King Kong of Big Beats. Said Beat, apparently the handiwork of arranger Thor Baldursson and producer Pete Bellotte, swamps everything and

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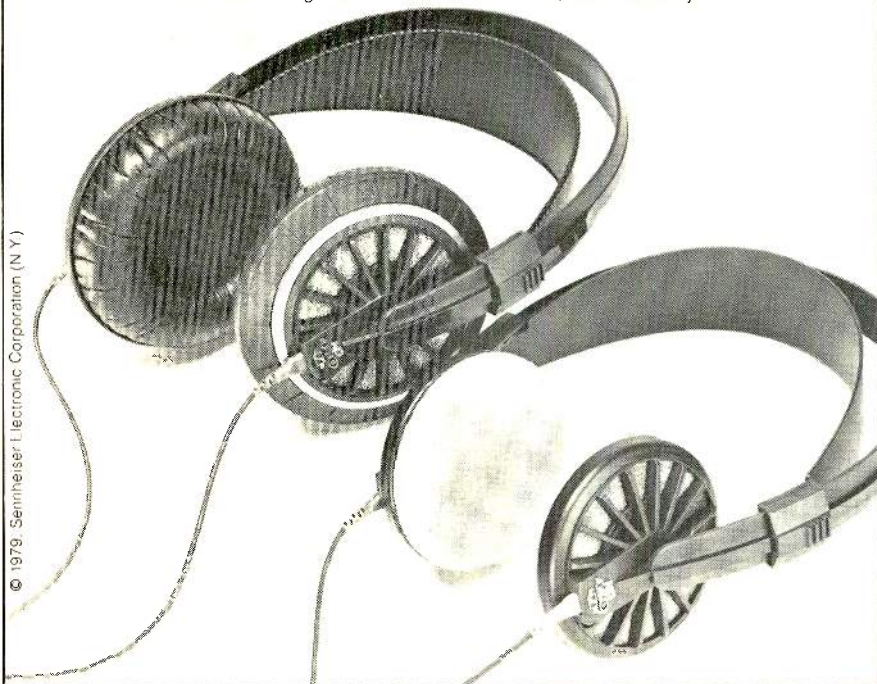
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anything else, including our hero Elton, who can be heard bellowing mightily, but to little effect, in the background. The only place here where the Beat really pays off is in *Johnny B. Goode*, and there primarily because of some superior solo work on sax by Lenny Pickett. As for the rest, Elton tries valiantly, but "Victim of Love" never does develop into one of those characteristic mad tea parties that he hosts so well.

P.R.

RECORDING OF SPECIAL MERIT

TEDDI KING: *Someone to Light Up Your Life*. Teddi King (vocals); Loonis McGlohon (piano); Mel Alexander (bass); Jim Lackey (drums). *Two for the Road; The Door Opened; Sometimes I'm Happy; You Turned the Tables on Me; It Never Entered My Mind; When the Sun Comes Out*; and six others. AUDIOPHILE AP-150 \$7.98.

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

This is one of the last recordings Teddi King made. She chose the song sequence for the album before her death and requested that Alec Wilder write the liner notes. Wilder sums up her art perhaps better than anyone else has:

"Those who knew Teddi King only as a performer were well-rewarded by her exuberance, vitality, and swinging style, as well as by her total emotional involvement with a serious ballad. Those of us who knew her as a person were always aware of much more: her profound goodness, her warmth, humility, and steadfastness."

All that needs to be added to Wilder's tribute is that the foregoing applies to, and shines through, her performances here. Anybody who has any doubts about how dazzlingly good she was should compare her version of *It Never Entered My Mind* with the famous Sinatra recording of it. "Someone to Light Up Your Life" is a superb testament to Teddi King's art.

P.R.

RECORDING OF SPECIAL MERIT

ROBERT KRAFT AND THE IVORY COAST: *Moodswing*. Robert Kraft (vocals, piano); the Ivory Coast (vocals and instrumentals). *Who's Seducin' Who?; Down in Flames; Junction Boulevard; Bon Voyage; Second Nature*; and four others. RSO RS-1-3070 \$7.98, © 8T-1-3070 \$7.98, © CT-1-3070 \$7.98.

Performance: **K-R-A-F-T**
Recording: **Good**

Robert Kraft is one of those hyphenated musicians: blues-jazz-pop-funk-etc. But for all the mixture of styles, he writes and sings like nobody else. In an era when yesterday's musical hits are endlessly, blandly recycled, Kraft is an original. I first heard him and his group as the opener for a disco act. It was a strange mixed marriage, and now here's their first album from RSO, the Bee Gees' label. I was sure RSO's producers would reprocess Kraft into aural Velveeta—build up the bass, add a choir or two in the background, have him cover other people's songs, the whole thing coming out as "Robert Kraft Sings Jive."

Well, surprise, surprise: "Moodswing" is the genuine article, Robert Kraft doing his own kind of thing. His music is not so much

jazz fusion as razz-ma-tazz fusion—bop meets pop. The songs are surprising bursts of energy and humor performed in a free-flowing, stream-of-consciousness croon. They're more spunky than funky, music to shake a leg to instead of something to put your whole body in motion. Kraft is both a throwback and a forerunner, part David Bowie, part Bobby Short. Although the instrumentation is mainly acoustic, Kraft and his Ivory Coast colleagues provide plenty of electricity (the name apparently refers to the piano ivories, which are prominently featured in the jacket art, not the African country). Kraft sings with a fervent joy—and with all the urgency of a man whose pants are on fire. But for all his talent and charm, perhaps the true stars

of this album are the execs at RSO, for having the smarts to let Robert Kraft be Robert Kraft.

—Rick Mitz

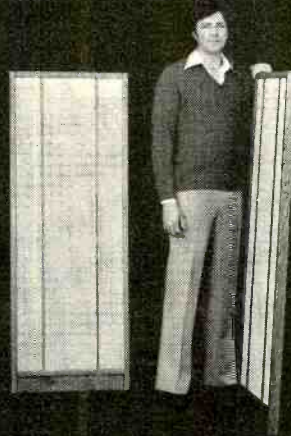
LUCY LOWE: *Vaudeville Songs* (see Best of the Month, page 87)

MANHATTAN TRANSFER: *Extensions*. Manhattan Transfer (vocals); instrumental accompaniment. *Birdland; Wacky Dust; Coo Coo U; Shaker Song; Foreign Affair*; and five others. ATLANTIC SD 19258 \$7.98.

Performance: **Yesterday's trendies**
Recording: **Good**

Manhattan Transfer's present state is that of trendies without a trend. The record cover

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SHOES: *pleasing musical recycling*

shows them dressed in costumes and hairdos that look like something from a low-budget *Star Trek*, and on the inside they do try on a few baubles associated more with Kraftwerk than with the Late Swing Era they've been working to death in their recordings, but nothing really happens here. It's just the same old digging up of such "amusing" material as the 1938 *Wacky Dust*: "They call it wacky dust/It brings a dancing jag/And once it starts, then only a/Sap'll refuse to Big Apple or Shag." Gawd, isn't *that* the limit? Manhattan Transfer brings to mind the classic George Price cartoon showing a middle-aged woman, dressed from head to toe in the highest fashion of the Twenties, running frantically down a present-day street and yelling to the man at the newspaper stand, "Gimme a copy of the new *Vogue*. Quick!"

P.R.

BOB MARLEY AND THE WAILERS: *Survival*. Bob Marley (vocals, guitar, percussion); the Wailers (instrumentals). *Ambush; Survival; Babylon System; Top Rankin'; Zimbabwe*; and four others. ISLAND ILPS 9542 \$7.98, © M8 9542 \$7.98, © M5 9542 \$7.98.

Performance: **Gloom and doom**
Recording: **Good**

Bob Marley and the Wailers give us yet another series of dire musical warnings from the Third World on "Survival." From his base in Kingston, Jamaica, where this album was recorded, Marley is still dinning on, with fiery relish, about such delights as *Ambush* ("Ambush in the night/All guns aiming at me") and *Survival* ("Yes we're the survivors like/Daniel out of the lions' den survivors/Na-nana-na-na"). About the only time things let up a bit is in *Wake Up and Live*: "Life is one big road with lots of signs/So when you riding thru the ruts/Don't complicate your mind/Flee from hate, mischief and jealousy/Don't bury your thoughts/Put your vision to reality. Yeah!" Oh, yeah! Would that Marley took his own advice.

P.R.

IAN McLAGAN: *Troublemaker*. Ian McLagan (vocals, keyboards, guitar); Stanley

Clarke (bass); Ringo Starr (drums); other musicians. *La De La; Headlines; Truly; Somebody; Movin' Out; If It's Alright*; and four others. MERCURY SRM-1-3786 \$7.98, © MC8-1-3786 \$7.98, © MCR4-1-3786 \$7.98.

Performance: **Middling**
Recording: **Nice**

This one starts out so engagingly that for a minute I figured ex-Small Face Ian McLagan might be the one finally to beat the Great Sideman Jinx (it being one of the oldest and most inviolable rules of rock that sidemen, no matter how formidable, make lousy albums). *La De La*, the opener, reveals that besides being a perfectly swell boogie pianist, which we already knew, Little Mac has a voice pleasantly reminiscent of Paul Rogers' without the terminal melancholia, writes an amusing lyric, and knows how to work up an attractive Stones/Faces groove. The rest, unfortunately, comes off only as a better-sung version of Ron Wood's solo effort, which featured much the same cast and a similar, largely formula sound. Oh, there's some good neo-reggae in here, and *Headlines* appears to be a monumental bitchy putdown of Mac's old boy friend Rod Stewart, which I applaud in principle. The rest, though, is just a little too familiar to be as likable as it wants to be.

S.S.

JOHNNY NASH: *Let's Go Dancing* (see Best of the Month, page 84)

WILLIE NILE (see The Pop Beat, page 56)

NO NUKES (see Best of the Month, page 88)

PABLO CRUISE: *Part of the Game*. Pablo Cruise (vocals and instrumentals). *Part of the Game; I Want You Tonight; Lonely Nights; When Love Is at Your Door*; and four others. A&M SP-3712 \$7.98, © 8T-3712 \$7.98, © CS-3712 \$7.98.

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

Okay, okay. This is Los Angeles AM-radio pop, and for what it is it suffices. *I Want You*

Tonight was a hit single not for the merits of the melody or lyrics, which are average, but because of the disco-style bass line. The group's material deals with "relationships," but they don't say anything about them that hasn't been said before. Besides, songs about relationships have undergone some changes over the last two decades. But so what, if what you want is just music to cruise the freeways by?

J.V.

SHOES: *Present Tense*. Shoes (vocals and instrumentals). *Tomorrow Night; Too Late; Hangin' Around with You; Your Very Eyes; In My Arms Again; Somebody Has What I Had*; and six others. ELEKTRA 6E-244 \$7.98, © ET8-244 \$7.98, © TC5-244 \$7.98.

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

If you wait long enough, something old will seem new to a later generation that doesn't remember the original. Shoes, a new Midwestern band, uses harmonies and song structures borrowed from Byrds material of the mid and late Sixties. Listening to this album, I sometimes expected them suddenly to burst into a rousing chorus of *So You Want to Be a Rock and Roll Star*. There are also references to the Beatles, Buddy Holly, and even the bubblegum studio groups of the late Sixties, but Shoes' musical recycling pleases rather than offends. It's like going to a new movie and finding it's just like one of those good old B-pictures you remember fondly from the Forties. Shoes has good taste in models, but they really should have called this one "Past Masters" instead of "Present Tense."

J.V.

RECORDING OF SPECIAL MERIT

SLAVE: *Just a Touch of Love*. Slave (vocals); vocal and instrumental accompaniment. *Just a Touch of Love; Funky Lady (Foxy Lady); Roots; Thank You*; and four others. COTILLION SD 5217 \$7.98, © TP 5217 \$7.98, © CS 5217 \$7.98.

Performance: **Virtuosic funk**
Recording: **Crystalline**

There are seven singers in Slave, and boy, do they let you know it! In virtually every song here, each of them has a turn or two singing solo as well as in male or female groups set over against each other. This freewheeling, do-your-own-thing approach is, of course, characteristic of funk music, and it can lead to chaos. But in these virtuosic hands it works. In *Are You Ready for Love?*, for example, three distinct vocal lines, developed almost like instrumentals, build in energy to a fine finale.

What makes the album's best cuts hang together so well is their strong melodies—classy, cool, elegant melodies. The title song is really lovely dance music. The best song all around, *Funky Lady (Foxy Lady)*, is more immediate in appeal, even more danceable, and just as listenable. Both these songs are knit together with a subtlety that rewards repeated listening. Another highlight is *Shine*, a good, up-tempo number with Slave's female contingent harmonizing very prettily on the title word.

You need good engineering to capture such multifaceted arrangements, which rarely have fewer than four or five things going on

(Continued on page 116)

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at once. Cotillion has pulled out all stops here—the sound is bright, clean, and wonderfully balanced—and provided blessedly silent surfaces to boot. The fine production helps lift this set of classy-funk performances well above the ordinary. *E.B.*

RECORDING OF SPECIAL MERIT

TOTO: *Hydra*. Toto (vocals and instrumentals). *St. George and the Dragon*; 99; *Lorraine*; *All Us Boys*; and four others. COLUMBIA FC 36229 \$8.98, © FCA 36229 \$8.98, © FCT 36229 \$8.98.

Performance: **Very good**

Recording: **Excellent**

Toto strikes a happy balance between the self-conscious, need-a-hit, slugging rock of Foreigner and the musical wit of 10cc. The group seems more comfortable with itself than Foreigner, but they can't tell a joke as well as 10cc. Toto's arrangements are spicy and colorful, and the songs are performed with commendable panache. I have seldom heard a band that jumps out of the speakers the way this one does, not from studio control-board dial-twisting but from sheer verve. The material ranges from average to interesting, but in rock it is not so much *what* is said as *how* it is said. Toto knows how. *J.V.*

TANYA TUCKER: *Tear Me Apart*. Tanya Tucker (vocals); vocal and instrumental accompaniment. *Blind Love*; *Tear Me Apart*; *Crossfire of Desire*; *San Francisco Medley*; and six others. MCA MCA-5106 \$7.98, © MCAT-5106 \$7.98, © MCAC-5106 \$7.98.

Performance: **Buried**

Recording: **Cloudy**

This is Tanya Tucker's second all-out pop/rock album as she leaves her original country audience behind. Unfortunately, whatever distinctive style she may have in this genre is lost in the production by Mike Chapman, who applies the same kind of studio sound to all the female singers he produces. He also casts them all as the same character: the tough teenage vamp.

Over the past year Chapman has produced albums for the group Blondie and for Suzi Quatro, Pat Benatar, and Tucker. Only Blondie's Deborah Harry has managed to retain her personality and crack the Chapman mold. Tucker has the best voice and the best phrasing of the four, but she has placed herself too much under Chapman's control. Once in a while her individuality comes through in a line or a phrase, but it is quickly smothered by the soft-metal sound, with echo chamber, in which Chapman specializes. It's too bad, because Tucker has talent, and with a different producer she might well have made a much better album. *J.V.*

JERRY JEFF WALKER: *Too Old to Change*. Jerry Jeff Walker (vocals, guitar); vocal and instrumental accompaniment. *I Ain't Living Long Like This*; *Old Nashville Cowboy*; *Hands on the Wheel*; *Cross the Borderline*; and six others. ELEKTRA 6E-239 \$7.98, © ET8-239 \$7.97, © TCS-239 \$7.97.

Performance: **Offhand**

Recording: **Good**

Occasionally Jerry Jeff Walker will stop fooling around and *sing* a song, but usually he
(Continued on page 120)

STEREO REVIEW

The Universal Expander

Dynamic range limiting during the production of records (and of FM broadcasts) has long been a source of irritation for music lovers. As playback equipment improves, the limitations of most program material become more and more obvious. The vast majority of records are produced with the lowest common denominator in mind—a system that is restricted in its ability to recreate natural dynamic range.

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Atlantic Records

THE early New Orleans ragtime orchestras incorporated some polite violin playing, first-generation blues recordings occasionally feature the pitiful squeezing and squeaking of a dance-band musician's fiddle as part of the "novelty accompaniment," some early clarinetists—Darnell Howard and Jimmie Noone among them—made the switch to violin from time to time, and the violin's potential as a jazz instrument brought it front and center in the Jean Goldkette band of the mid Twenties. But even fifty years later, jazz boasts only a handful of players who have made their mark with the violin. In addition to the four whose recently released albums are reviewed here, they include Eddie South, Stuff Smith, Ray Nance, Michael White, and Svend Asmusen. Lately we have also seen the emergence of Noel Pointer, the first jazz/rock/soul violin fusionist. Nonetheless, there is still no sign that the violin will ever play a major role either in pure jazz or in fusion music. And that's a shame, because in the right hands it can generate very exciting, swinging sounds.

Unfortunately, there is very little excitement in Joe Venuti's "Doin' Things" (Pausa), a 1971 set that takes its title from a 1927 Venuti/Eddie Lang hit. In 1925 Venuti and guitarist Lang began a highly successful musical partnership that yielded scores of outstanding recordings before Lang's death in 1933. Though Venuti went on to lead orchestras and small groups of his own, he never again reached the artistic heights of those early recordings. Sad to say, "Doin' Things" does not even adequately reflect the state of Venuti's art at the time it was recorded. He manages to get off the ground, but he is hampered in any effort to swing by a rhythm section that can't. The drummer, Gil Cuppini from Milan, is particularly dreadful, and the results are something like what one might hear in a third-rate Hamburg café where union-assigned musicians are trying to "get in the groove."

Quite another matter is another Pausa release, "Young Django." This is a worthy tribute to the late Belgian-gypsy guitarist Django Reinhardt by a splendid quartet consisting of Stéphane Grappelli (Django's old sidekick

from the Quintette of the Hot Club of France) playing both violin and piano, guitarists Larry Coryell and Philip Catherine, and the excellent bassist Niels-Henning Ørsted-Pedersen (if you think chauvinism made me throw in that last adjective, just listen to the Dane's work on *Minor Swing*). The two guitarists work well together here, as they did on their duet albums for Elektra, and since both have previously shown an affinity for Django's music and style, it is no surprise to find their performances in this album as much a reflection of Django Reinhardt as the program. Except for Catherine's *Galerie St. Hubert* and Coryell's *Blues for Django and Stéphane*, all the compositions are by Grappelli and Reinhardt and date from the latter half of the Thirties; while the spirit of the old QHCF pervades, the spark of youth makes all of it sound as fresh as new-churned butter. Even Grappelli (who plays a rollicking piano solo on Coryell's *Blues*) plays with the energy and zest of someone fifty years younger (he turned seventy-one the week this was recorded in January 1979).

THERE is plenty of energy on Pausa's "Sunday Walk," a 1967 session by the then twenty-five-year-old Frenchman Jean-Luc Ponty, the man who did for the jazz violin what John Coltrane did for the saxophone: took it down a new path. Unfortunately, not as many musicians have followed Ponty as followed Coltrane, but, thanks to his saxophone-like style, he made the violin "acceptable" to many fans who would otherwise have regarded it as a voice of the past. (He has since lent his violin voice to recordings by Elton John, the Mothers of Invention, and the Mahavishnu Orchestra.) The instrumentation on this album is the same as on Venuti's, but that is where the similarity ends. Ponty has an impressive technique, which he enhances by electrical amplification, and he plays with great drive and a surging urgency. It takes a lot of technical proficiency just to keep up with him, but that was no problem for the international rhythm section here: German pianist Wolfgang Dauner, Danish bassist Niels-Henning Ørsted-Pedersen (again), and Swiss drum-

mer Daniel Humair. The most satisfying performance overall is on the breakneck version of pianist Denny Zeitlin's *Carole's Garden*, but *You've Changed* is certainly not to be sneezed at since it demonstrates Dauner's considerable talent and reflects in a most effective way Ponty's own classical training.

LEROY JENKINS' "Space Minds, New Worlds, Survival of America" on Tomato is an album of quite a different nature from the three Pausa releases. It consists of one extended composition, from which it takes its title, and four shorter ones. Jenkins is an alumnus of Chicago's AACM (Association for the Advancement of Creative Musicians), as his music more or less evidences, so the album is not for people of conservative jazz tastes. But if free-form music gives you intellectual stimulation, "Space Minds . . ." is a pretty good example of the genre. The title work features Richard Teitelbaum on synthesizers, Anthony Davis on electric piano, and trombonist George Lewis using an electronic attachment of his own devising. Add to these the highly contemporary, fragmented drumming of Andrew Cyrille and Jenkins' catty, laconic violin, and you have twenty-one minutes of nervous, twittering sounds that occasionally seem to fall completely apart but in the end make the only kind of sense works of this sort can. The four pieces on the second side are played on acoustic instruments and without Teitelbaum, but they are no less chaotic. By now you are probably convinced that I *hate* this album, but that's a bit strong. I simply don't *care* too much for this sort of thing, and when the jazz violin is involved I find that I care for it even less.

—Chris Albertson

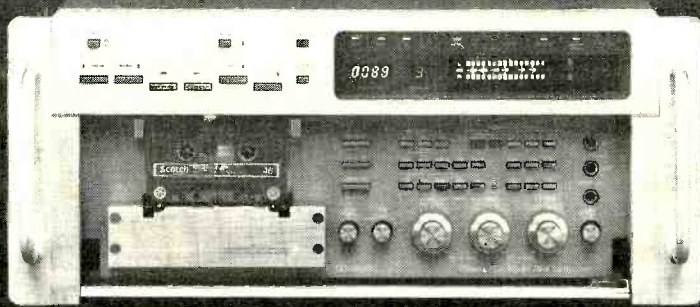
JOE VENUTI: Doin' Things. Joe Venuti (violin); Lou Stein (piano); Marco Ratti (bass); Gil Cuppini (drums). *Signor Venuti's Gershwin Medley; O Marie; After You've Gone; Honeysuckle Rose; Lover; Muskrat Ramble; One Finger Joe; Doin' Things.* PAUSA 7043 \$7.98.

STÉPHANE GRAPPELLI: Young Django. Stéphane Grappelli (violin, piano); Philip Catherine, Larry Coryell (guitars); Niels-Henning Ørsted-Pedersen (bass). *Djangology; Sweet Chorus; Minor Swing; Are You in the Mood?; Galerie St. Hubert; Tears; Swing Guitars; Oriental Shuffle; Blues for Django and Stéphane.* PAUSA 7041 \$7.98.

JEAN-LUC PONTY: Sunday Walk. Jean-Luc Ponty (violin); Wolfgang Dauner (piano); Niels-Henning Ørsted-Pedersen (bass); Daniel Humair (drums). *Sunday Walk; Carole's Garden; Cat Coach; You've Changed; Suite for Claudia.* PAUSA 7033 \$7.98.

LEROY JENKINS: Space Minds, New Worlds, Survival of America. Leroy Jenkins (violin); George Lewis (trombone); Anthony Davis (piano); Andrew Cyrille (percussion); Richard Teitelbaum (synthesizers). *Space Minds, New Worlds, Survival of America; Dancing on a Melody; The Clowns; Kick Back Stomp; Through the Ages Jehovah.* TOMATO TOM-8001 \$7.98.

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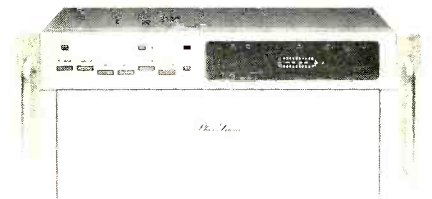
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fools around. This album catches him doing that just about exclusively. The vocals are a series of lazy growls (the *San Antone Rose* duet with Carole King gives us two preoccupied singers, in addition to King's being off-key most of the time), and the song titles seem to have been drawn out of a hat. Walker didn't write any of them. The best thing here is the loose alertness of the instrumental back-up. Walker usually has some point he's trying to make, but this time he seems to be saying the hell with it—except for a sensitive reading of *Hands on the Wheel*, the Billy Callery tune from Willie Nelson's "Red Headed Stranger"—and buries the whole project with a totally silly and pointless rendition of *Me and Bobby McGee*. Being too old to change doesn't mean one can't be erratic.

N.C.

RECORDING OF SPECIAL MERIT

DON WILLIAMS: *Portrait*. Don Williams (vocals, guitar); instrumental accompaniment. *It Only Rains on Me; Circle Driveway; You Get to Me; Love's Endless War; Good Ole Boys Like Me;* and five others. MCA MCA-3192 \$7.98, © MCAT-3192 \$7.98, © MCAC-3192 \$7.98.

Performance: **Old-gold mellow**
Recording: **Clear**

Hello, Americans, stand by for... *heresy*: Don Williams does what Jim Reeves did a lot better than Reeves did it. Williams has become one of the most ingratiating "soft" singers to come out of country music in a long time. Putting on one of his albums is like putting on a mood, and you can have any mood you want as long as it's mellow. What this album seems to be mostly about is the evolutionary process—only Bob McDill's *Good Ole Boys Like Me* comes close to being a high-profile song. You can just sense Williams mellowing like old gold and his voice aging like good wine. As usual, the album has tunes, and the backing knows its way around in the singer's world. Individually the songs aren't memorable, but put together and given the Don Williams treatment, they give me the distinct impression that I've just had a good time.

N.C.

HANK WILLIAMS JR.: *Whiskey Bent and Hell Bound*. Hank Williams Jr. (vocals, guitar); Reggie Young, James Burton (guitars); other musicians. *Outlaw Women; White Lightnin'; Women I've Never Had; Come and Go Blues; Old Nashville Cowboys;* and five others. ELEKTRA 6E-237 \$7.98, © ET8-237 \$7.97, © TCS-237 \$7.97.

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

Not that he was ever complicated, but Hank Williams Jr. seems to be following an impulse that has also gripped some of his colleagues lately—namely, to simplify.

In "Whiskey Bent" he has taken simplicity mostly along the bluesy route, and the main thing this format does is show that his singing style has, finally, just about jelled. It may seem an odd thing to say about someone who's been around so long, but I think Williams is just now finding his own sound. I was first struck by this when I heard him doing Gregg Allman's *Come and Go Blues*, and I had to go back to the others and double

(Continued on page 122)

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check. It's an attractively battered sound, the kind most of these lyrics call for (they *do* carry on about ramblin' and bein' bad), and there is an underlay of genuine country-blues expressiveness in it. Some of the songs will wear a little thin on you, but some pass the time rather well. This is no blockbuster, but it's an appealing album, especially if you like to hear singing styles jell. *N.C.*

PRECIOUS WILSON AND ERUPTION:

Leave a Light. Precious Wilson (vocals); Eruption (vocals and instrumentals). *Leave a Light (I'll Keep a Light in My Window); Sweet Side; Up and Away; Left Me in the Rain; Valley of the Dolls;* and four others. ARIOLA/HANSA SW-50061 \$7.98, © 8XW-50061 \$7.98, © 4XW-50061 \$7.98.

Performance: **More up than down**

Recording: **Satisfactory**

Precious Wilson blasts off here on the opener, *Leave a Light*, in such a sizzling ball of fury that it is all but impossible to remain unscorched. This rhythm-heavy dance number is propelled by her full-throated, gutsy, hollering style; she sings as if she had seven lungs. Perhaps this would have been a better album if she had stuck to that approach, for when the beat shifts to a reggae base she lets down somewhat and the spirit lags. The highlight of the second side is her reworking of the old movie theme *Valley of the Dolls*, which she funks up a bit despite a pretty straight reading. But Precious is definitely more so when she keeps her spirits high. *P.G.*

XTC: Drums and Wires. XTC (vocals and instrumentals); Dick Cuthall (flugelhorn). *Life Begins at the Hop; Helicopter; Making Plans for Nigel; Ten Feet Tall;* and eight others. VIRGIN VA 13134 \$7.98, © TP 13134 \$7.98, © CS 13134 \$7.98.

Performance: **Bright, but . . .**

Recording: **Nice**

I think it was Saint-Saëns who once remarked of a rival composer that his work was "good and original—but what is good about it isn't original, and what is original isn't good." That could sum up XTC. Here's a

band that undoubtedly has a lot on the ball: they've a real flair for melody, they're sharp instrumentalists, and their lyrics are dry, cheeky, and funny. Yet they seem almost compelled to trick up everything they do with percussive, jaggedly dissonant instrumental detail. Granted, sometimes they achieve a certain wacky logic, as in the charming *Life Begins at the Hop*, where the avant-garde surf-guitar effects enhance what is already a near-perfect copy of 1965 Brian Wilson. But more often it simply sounds like they're trying too damned hard to be modernist. Lighten up, guys: I know you art-school drop-outs find this hard to believe, but sometimes the pursuit of innovation for its own sake is nothing more than Calvinist busy work. *S.S.*

Z Z TOP: Degüello. Z Z Top (vocals and instrumentals). *She Loves My Automobile; I'm Bad, I'm Nationwide; A Fool for Your Stockings; Dust My Broom;* and six others. WARNER BROS. HS 3361 \$8.98, © W8 3361 \$8.98, © W5 3361 \$8.98.

Performance: **Straightforward**

Recording: **Good**

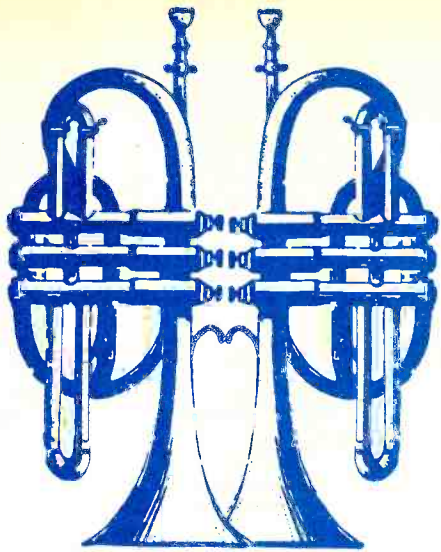
Here you can almost see Z Z Top taking heart from the success of Dire Straits, hoping to extend the preposterous idea that album-making is the musician's trip, not the producer's. The only thing complicated about it is the jacket it comes in, a sleek, three-insert job whose goal must be to look classy by looking wasteful. It contains very little useful information, and the graphics aren't worth a fraction of the space. And it does sound as if having some printed lyrics would have been worthwhile; the album is basic to the point of sticking right on the blues, and the lyrics have the blues' thing for innuendo. The band plays tightly enough to make three musicians seem sufficient and loose enough to surprise you now and then. Yet compared with, say, Dire Straits' first album, it's lacking in excitement. Maybe it's *too* tight on the blues, as in having too many third-hand tunes. Something's riding on its shoulders even though its heart is in the right place. *N.C.*

(Continued on page 125)

Z Z TOP: an album with its heart in the right place



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JAZZ



RICHARD BEIRACH: *Elm.* Richard Beirach (piano); George Mraz (bass); Jack DeJohnette (drums). *Sea Priestess; Snow Leopard; Ki;* and two others. ECM ECM-1-1142 \$8.98, © M8E-1142 \$8.98, © M5E-1142 \$8.98.

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

Brooklyn-born pianist Richard Beirach's formal training in music was for the most part classical, but as a teenager in the Sixties he developed a strong desire to play jazz. That is precisely what he has been doing professionally since 1972, when he graduated from the Manhattan School of Music and joined a Stan Getz group, which, incidentally, also contained one of his sidemen on this album, drummer Jack DeJohnette. Since leaving Getz in 1973, Beirach has toured and recorded with a Dave Liebman band, Look-out Farm; recorded with Jeremy Steig, Chet Baker, Lee Konitz, and Freddie Hubbard; and recorded two ECM albums as a leader, "Eon" (1054) and "Hubris" (1104). The latter album, released two years ago, was a solo set undoubtedly inspired by the success, if not the style, of Keith Jarrett. Beirach names Jarrett among his influences, but "Elm," his latest release, points more in the direction of Bill Evans, whom he has also named in that context.

Like Evans, Beirach plays with a delicate touch; his ideas are flowing and lyrical, and his general sound is pretty. But, appealing as his playing is, his real strength is his talent as a composer. He wrote all five selections on "Elm," and they are as boldly yet logically structured as a Frank Lloyd Wright building. The rhythmic contributions of DeJohnette and bassist George Mraz—two of the finest players on their respective instruments—add good support to Beirach's fine constructions.

C.A.

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Performance: **Tongue in cheek**
Recording: **Very good**

Have you ever found yourself glued to the Victrola, tapping your foot to *The Sneak* as played by Yerkes' S.S. Flotilla Orchestra or some modish ditty rendered by the Bar Harbor Society Orchestra (that Aeolian Company sure could churn out the hits)? If so, you

probably muttered to yourself, "They don't make music like that any more." Well, perhaps not *quite* like that, but something similar rings out when Gary Lawrence, baton in hand, gives the down beat to his Sizzling Syncopators, an eleven-piece band that plays in the style of the Twenties, but—unlike most bands of this nature—doesn't simply follow the old stock arrangements. Lawrence writes his own charts, a handy approach that allows him to program a wide-ranging variety of selections. On his first album (*Blue Goose 2020*), released in 1976, he included along with the typical Twenties fare a decidedly anachronistic arrangement of Barry White's *You're the First, the Last, My Everything*, which modulated into—"introduced," as the labels used to say—Van McCoy's *The Hustle*. The effect was interesting, especially coming at a time when Tin Pan Alley's disco manufacturers were doing the reverse: tamping up such oldies as *Baby Face* and *Tangerine* in late-Seventies four-to-the-bar style.

Lawrence's new Columbia album contains two such translations plus an original, topical Charleston. The most interesting cut is *Stayin' Alive*, the Bee Gees hit you probably grew tired of some time ago but will undoubtedly fall in love with all over again as co-leader Frank Scafuri and his Melody Men (Chris Spanopoulos and Bob Nelson) for the first time render the lyrics intelligibly. Less startling is a Beatles tune from the so-called "White Album," *Honey Pie*, which was in the Twenties style to begin with. If you don't think they still *write* the kind of humorous lyrics that were so typical in the early days of American pop music, listen to Lawrence's version of *You're Never Fully Dressed Without a Smile* from the current Broadway hit *Annie*. The original tune is *Charleston at the Disco*, in which clear-throated Scafuri and Company conjure up a night when the dance rage of the Twenties pushes aside the dance rage of the Seventies.

The band plays with fair precision, but don't expect any great musicianship here; the solos are as bland as most solos were on the dance-band records of the Twenties. What you can expect from this record is a great deal of fun, and I am sure that that is all Lawrence and Scafuri intended to provide. A whole set of current hits done in Twenties style would be even better, because there are infinitely superior versions of such old tunes as *The Varsity Drag* and *Copenhagen* to be had on reissues. If there is a third album by these delightful zanies, I hope it is devoted entirely to camping up disco, or whatever new craze the Eighties bring us.

C.A.

RECORDING OF SPECIAL MERIT

GEORGE SHEARING: Light, Airy and Swinging. George Shearing (piano); Andy Simpkins (bass); "Stix" Hooper (drums). *Love Walked In; If; Too Close for Comfort; Speak Low;* and four others. PAUSA 7035 \$7.98.

Performance **Ebullient**
Recording: **Very good**

The title of George Shearing's new album aptly describes its character. Shearing is a keyboard artist who can take a familiar tune, such as Gershwin's *Love Walked In* or Weill's *Speak Low*, and toss it into the air in a series of graceful arabesques. That he can

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Sirone: Avant-garde Jazz Bass



JAZZ bassist Sirone (sometimes still referred to as Norris Jones) began studying musical theory and composition at the age of five, entered his teens as a trombone player, and came of age as a bassist backing such popular early-Sixties singers as Sam Cooke and Jerry Butler. Before moving to New York in 1965, Sirone worked with a co-op band in his home town, Atlanta, and—predictably, given his extensive formal training—found himself drawn toward the day's avant-garde jazz movement. Accordingly, his New York associates during the latter half of the Sixties included Archie Shepp, Pharoah Sanders, Albert Ayler, Noah Howard, Sun Ra, and Cecil Taylor. I can recall a time, some ten years ago, when Sirone and Taylor occupied adjoining lofts on New York's West 31st Street and frequently played host to some of their illustrious (if unsung) colleagues; often the most wondrous sounds found their way to the street below, blending there with jukebox pap from the downstairs tavern and the whirr and buzz of city movements. If passers-by heard the loft sounds, they ignored them with characteristic New York cool.

Sirone's sounds have made their way onto records before—with the late, lamented Revolutionary Ensemble (which he co-led with violinist Leroy Jenkins) and with him as a sideman in groups led by Dewey Redman, Marion Brown, Cecil Taylor, Gato Barbieri, and others—but "Artistry" is the first album over which he has had complete control. It is an impressive leadership debut: magnificently performed, well recorded, and tastefully packaged. This is the first release from the new label awkwardly named "Of the Cosmos," and it is obviously a labor of love.

Sirone has assembled an unusual but most effective quartet composed of bass, flute, cello, and percussion. The roles are evenly divided, but the individually conceived variations on Sirone's themes blend into a cohesive whole, making his contribution toward shaping the result obvious to anyone familiar with his previous work. Flutist James Newton is

new to me, but judging by his work here he just might update his instrument the way Jean-Luc Ponty did the violin.

The cello has played a very limited role in jazz since the late Oscar Pettiford more or less introduced it to the idiom thirty years ago; Chico Hamilton employed it effectively in his late-Fifties groups, and Ron Carter occasionally switches to it today, but there has not yet been a Casals of jazz. As impressive here as Muneer Bernard Fennel's interwoven cello commentary is within the context of Sirone's ensemble, I still don't see much of a future for the instrument in the so-called "new music."

Finally, providing a bouncy yet firm platform for the creative leaps of his three colleagues, there is the formidable percussionist of the Art Ensemble of Chicago, Don Moye. As Stanley Crouch points out in his literate and authoritative notes, Moye is indeed a percussionist rather than just a drummer playing percussion instruments. His tasteful, unselfish sense of dynamics is an essential ingredient in the musical success of this album.

THERE is no need to go into details about the music. The four thematic compositions, all by Sirone, are multifaceted, well constructed, and at times even brilliant. But I should point out that although some of this music is quite accessible even to ears not attuned to the free jazz forms of recent years, "Artistry" is in the main an album for the more adventurous music lover. Sirone is carrying on the traditions established by the early artists of jazz, not by imitation but by development in a contemporary frame.

—Chris Albertson

SIRONE: *Artistry*. Sirone (bass); James Newton (flute); Muneer Bernard Fennel (cello); Don Moye (percussion). *Illusions of Reality; Breath of Life; Circumstances; Libido.* OF THE COSMOS OTC 801 \$8.98 (from Of the Cosmos, Inc., 858 Tenth Avenue, New York, N.Y. 10019).

do the same thing with a bit of Mozart is amply proved in the track called *If*. To work his magic on a tune, Shearing needs time and elbow room—his treatment of *Speak Low*, for example, runs nearly eight minutes—but patience in listening to him stretch and bend the material to his improvising will is generally well rewarded. Helping the pianist weave his intricate jazz textures are "Stix" Hooper on drums and bass player Andy Simpkins. They are more than mere accompanists; they are co-stars.

P.K.

BENSIDRAN: *The Cat and the Hat*. Ben Sidran (vocals, piano); Mike Brecker (tenor saxophone, electric piano); Lee Ritenour (guitar); Joe Henderson (tenor saxophone); Tom Harrell (trumpet); Steve Gadd (drums); Paulinho da Costa (percussion); other musicians. *Hi-Fly; Ask Me Now; Like Sonny; Give It to the Kids; Girl Talk;* and five others. HORIZON SP-741 \$7.98, © AAM-741 \$7.98, © AAM-741 \$7.98.

Performance: **Sometimes very good**

Recording: **Very good**

Ben Sidran likes to take old jazz tunes, tinker around with them, add his own lyrics (mostly observations on the current scene), and turn them into new songs. Since he made his reputation as a jazz pianist, his pianism is frequently more inspired than his lyrics, which are riddled with such lines as "no one ever has it easy," or his singing, which falls vaguely into the growly Louis Armstrong category. Some of the songs deal fuzzily with the problem of alienation, some are little sermonettes about the generation gap, and in others Sidran shakes his head over "those high-flying crowds/With their foreign cars . . . /Gettin' down at disco bars." Since he is surrounded by a group of top-notch jazz instrumentalists, the most satisfying moments here are the interludes of improvisation and the purely instrumental *Like Sonny* (by John Coltrane), which needs no words to carry its melody. Also, Sidran's own updating of *Ballin' the Jack* is pretty hard to resist. The whole album is somewhat less than marvelous, but it has its moments.

P.K.

ZOOT SIMS: *Zoot Sims with the Al Cohn/Richie Kamuca Sextet and the Bob Brookmeyer Quintet*. Zoot Sims, Al Cohn, Richie Kamuca (tenor saxophone); Bob Brookmeyer (trombone); Dave Frishberg, Roger Kellaway (piano); Tommy Potter, Bill Crow (bass); Mel Lewis, Dave Bailey (drums). *Tickle Toe; The King;* and two others. PUMPKIN 108 \$7.98 (from Pumpkin Productions, Inc., P.O. Box 7963, Ludlum Branch, Miami, Fla. 33155).

Performance: **On the money**

Recording: **Good**

The notes here seem deliberately to avoid so much as hinting about the origin of these recordings, but a "special thanks" to disc jockey Alan Grant suggests the material stems from broadcasts, and we are given two dates in the fall of 1965. Since the recording balance is fairly good and there is a sense of stereo separation, these were probably radio (not TV) sessions. Whatever the source, it's a good thing someone captured the proceedings on tape.

Two groups are involved, a Bob Brookmeyer quintet and a sextet co-led by Al Cohn

(Continued on page 128)

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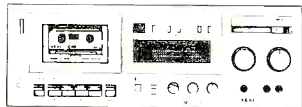
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and Richie Kamuca. What they have in common—besides an obvious ability to generate first-class mainstream jazz—is the presence of tenor player Zoot Sims, whose firm, Lester Young-derived style is wonderfully appropriate in both surroundings.

The ongoing Zoot Sims/Al Cohn partnership continues to generate lovely sounds as the two men nurture a rapport that began over thirty years ago when they were together in the Woody Herman band's famous "four brothers" saxophone unit. The freshness that oozes from every bar of *Broadway* and every foot-pounding beat of *Tickle Toe*—two Forties Basic items—attests to the timelessness of honest music. Also on hand for these two tracks is, of course, the late Richie Kamuca, a graduate of a later (mid-Fifties) Herman band. Kamuca was five years younger than Sims and Cohn, but he holds his own, especially on *Tickle Toe*, where he can be heard trading eights and fours with his better-known colleagues.

The two remaining tracks—*The King*, another dip into Count Basie's repertoire, and *On the Alamo*—swing no less, thanks in large measure to bassist Bill Crow. Drummer Dave Bailey is a bit overpowering on the cymbals (the fault lies with the engineer), and Bob Brookmeyer's valve trombone seems somewhat aloof, but this get-together is also wonderfully spirited. I'll take it, rough spots and all, over the artificially "enhanced" variety that poses as jazz these days. C.A.

DANNY STILES: *In Tandem into the 80's*. Danny Stiles (trumpet, flugelhorn); Bill Watrous (trombone); other musicians. *Cocktails for Two; Shiny Stockings; La Zorra*; and three others. FAMOUS DOOR HL 126 \$8.98.

Performance: **Smooth and clean**

Recording: **Good**

All I know about trumpeter Danny Stiles is that he began a fruitful musical association with former Woody Herman trombonist Bill Watrous in the late Sixties, that the two have since made several albums together on the Epic and Famous Door labels, usually under Watrous' name, and that he conducts a fascinating radio program on New York's WEVD featuring vintage jazz recordings. From that program and his records I know something else about Danny Stiles: he is full of good, free-flowing, middle-of-the-jazz-road musical ideas that he expresses expertly with his horns. The same can also be said of Watrous, which is why it is always such a joy to hear them together.

Mind you, what the Danny Stiles Five delivers is not notably adventurous music. There are no exotic instruments, the standard ground rules of jazz are observed, and the group is guided mainly by good taste and well-honed artistry rather than some fad. In short, this jazz has both feet on the ground. Chances are that you won't, though, once you hear such tracks as the potent opener, *Cocktails for Two*, or *Drew's in the Closet*, a bouncy Stiles tune. The rhythm section, led by Derek Smith—who is as effective when he's plugged in as when he's not—provides the required support with style and swing, and bassist Michael Moore deserves special mention for his inspired, flexible work on the aforementioned Stiles composition. C.A.

(Continued on page 130)

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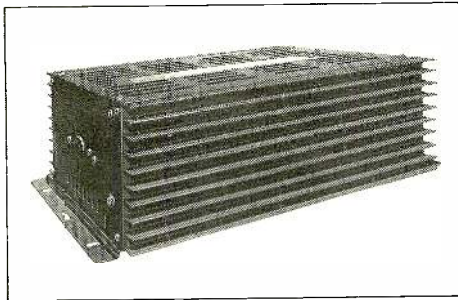
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Crew of the USS Enterprise: no room for Art in the transporter room

Star Trek Soundtrack

If you've seen *Star Trek—The Motion Picture* (as opposed, one assumes, to *Star Trek—The Lunch Box*), then you already know that whatever else it may be (or may have aspired to be), what it is basically is just the most expensive episode of the TV series ever shown. How you feel about *that* depends, of course, on how much the original show meant to you, rather than on any specifically cinematic standards. Is it better than other movies derived from hit TV shows? Sure—but don't forget that the competition is headed by *McHale's Navy Joins the Air Force*. Are the special effects ground-breaking? Not really. If you've seen one John Dykstra space ship you've seen them all; on the other hand, however, the more psychedelic stuff—the death rays, the eerie cloud, the Vagina-from-Planet-X alien baddie—is quite beautiful.

Is it good science fiction? Yes and no. In terms of written SF it's certainly as mundane as can be, but in terms of film I'd have to say, grudgingly, that it's better than most. After all, since 2001, what has there been worth mentioning? *Zardoz*? *Logan's Run*? *Buck Rogers*? You can yak all you want to about *Star Wars* or *Close Encounters*, but they are really nothing but stylish fairy tales, not SF, and *Alien* was just an old-fashioned spook show, Disney's *Black Hole* a glorified Saturday-morning cliffhanger. And if you can take some heresy, even 2001, for all its prophetic techno-poetry, is at heart a tricked-up metaphysical shaggy-dog story. (*Mad* magazine was right: the mysterious black monolith, the film's central plot device, is actually just the box the U.N. Secretariat building came in.)

The only sane way to evaluate the latest voyage of the *USS Enterprise* is to ask, simply, is it *Star Trek*? And the answer to that has to be an unqualified yes, which for my money makes the almost uniformly savage reviews the flick has had seem ridiculous. What were all those ignorant critics expecting, Ingmar Bergman with photon torpedoes? Who in

his right mind would try to drag Art into the transporter room?

The real reason *Star Trek* became a worldwide phenomenon (when a good straight dramatic show such as, say, *Family* didn't) is pathetically obvious: the damned thing was more consistently *entertaining*, on the most basic level, than any other American TV action series before or since. The characters related to each other in interesting ways, there were occasional doses of real wit and believable sentiment, and, most of all, the episodes zipped along in an easy, B-movie fashion that is by now a lost art on the tube, give or take a *Rockford File* or two. *Star Trek, the Series*, may have been dumb, but it was never dull. Given a choice between watching a *Star Trek* episode you've already seen three times, even one dubbed into Tagalog, and a pristine, never-before-aired hour of *Marcus Welby*, which would you choose? Exactly. The new, \$40-million *Star Trek* provides the same idiotic kick as the (relatively) cheap old ones, and that's all anyone has a right to expect of it.

Now to the soundtrack. Allow me simply to observe that Jerry Goldsmith's score is a craftsmanlike piece of work in the heroic-symphonic genre now generally associated with John Williams, that it occasionally transcends its built-in limitations to become above-average program music (the theme for the Klingon war fleet is quite effective exotica), and that it is very nicely played and recorded. And in closing, let us reflect on the immortal words of the skinny reporter in the Fifties movie classic *The Thing*: "An intellectual carrot. The mind boggles."

—Steve Simels

STAR TREK—THE MOTION PICTURE (Jerry Goldsmith). Original-soundtrack recording. Orchestra, Jerry Goldsmith cond. COLUMBIA JS 36334 \$7.98, © JSA 36334 \$7.98, © JST 36334 \$7.98.



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BEN BAGLEY'S COLE PORTER REVISITED, VOL. IV. Katharine Hepburn, Blossom Dearie, Helen Gallagher, Dolores Gray, Patrice Munsel, Arthur Siegel (vocals); chorus and orchestra, Dennis Deal cond. *Big Town; Ours; Why Do You Want to Hurt Me So?; High Flying Wings on My Shoes; The Queen of Terre Haute; Yours; Wild Wedding Bells; Quelque-Chose*; and thirteen others. PAINTED SMILES PS 1371 \$8.98 (from Painted Smiles Records, 116 Nassau Street, Room 516, New York, N.Y. 10038).

Performance: **Sparkling**

Recording: **Very good**

Here are twenty-one more little-known Cole Porter songs unearthed by Ben Bagley. Although the bag is very much a mixed one, there are some real treasures here, and nothing can be dismissed as mere bottom-of-the-barrel sludge. Moreover, Bagley's uncanny ability to lure the unlikeliest stars to the recording studio has this time produced a real coup: Katharine Hepburn, of all people, sings three of the Porter numbers. What Hepburn does with a song is to take the *Sprechstimme* approach that is a time-honored way out for stars who can't sing but have to. She does full justice to Porter's wicked ballad about those "infinite weekends" at Mrs. Lowsborough-Goodby's, a comic set-piece Porter wrote in 1934 to perform at parties and which I assumed for years was the personal property of Beatrice Lillie. She is also mischievously persuasive in another satirical number, *The Queen of Terre Haute*, written for *Fifty Million Frenchmen* in 1929, but her quavering voice founders on *A Woman's Career*, an item cut from *Kiss Me Kate*.

There are plenty of expert voices among the Bagley regulars to meet the demands of the rest of the program. Blossom Dearie and Arthur Siegel capture the Latin lilt of *Ours*, a tribute to New York City, and Patrice Munsel is marvelously musical in the "tempestuous bolero" *Yours*, written in 1938 for Libby Holman in the forgotten musical *You Never Know*. Helen Gallagher puts over *Buddy Beware*, an uncelebrated item from the celebrated *Anything Goes*, with just the right gutsy approach, and she is properly torchy in *Why Do You Want to Hurt Me So?* Dolores Gray makes the most of *Who Said Gay Paree?* (dropped from *Can-Can* when Porter came up with *I Love Paris*) and half a dozen other numbers, including the high-spirited *Pick Me Up and Lay Me Down*. There's the usual well-trained orchestra and chorus to flesh out the production numbers, and Dennis Deal has done a brilliant job of arranging and conducting these sparkling jewels. P.K.

(Continued on page 132)

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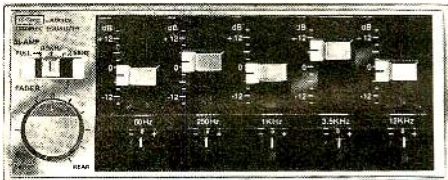
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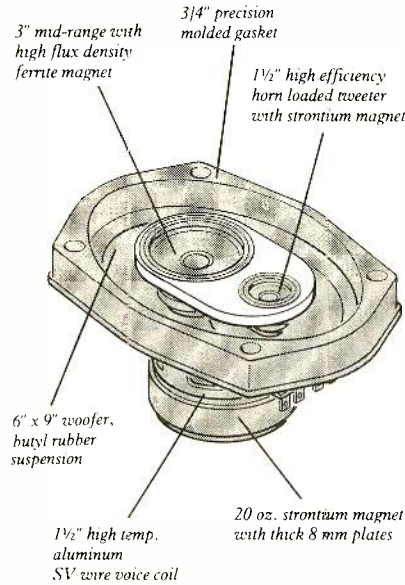
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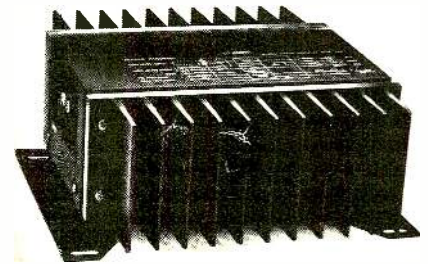


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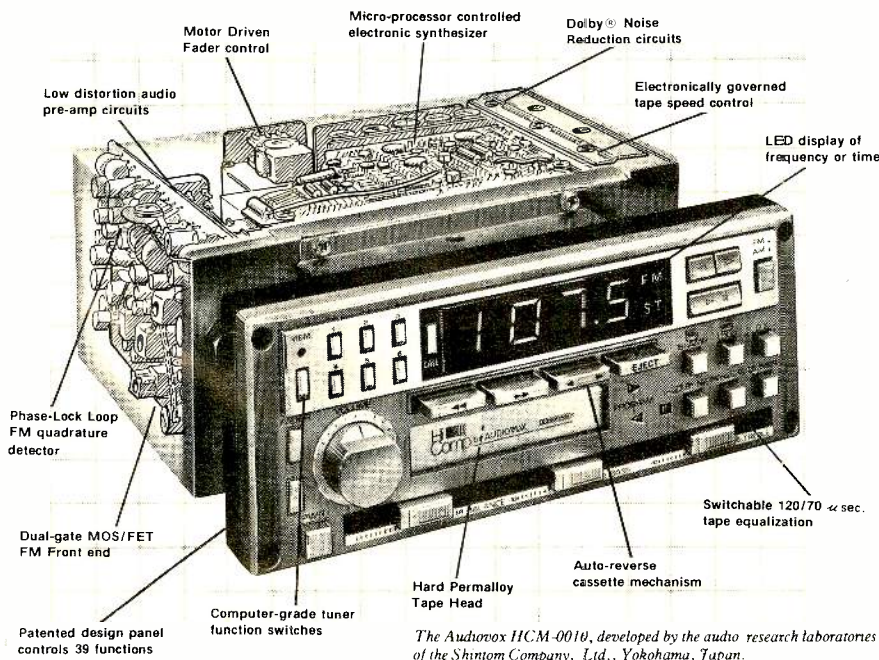
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CIRCLE NO. 7 ON READER SERVICE CARD



DISCO



LINDA CLIFFORD: *Here's My Love*. Linda Clifford (vocals); vocal and instrumental accompaniment. *King for a Night; I Just Wanna Wanna; Bailin' Out; Lonely Night*; and three others. RSO RS-1-3067 \$7.98, © 8T-1-3067 \$7.98, © CT-1-3067 \$7.98.

Performance: **Impressive**
Recording: **Fine**

The *If They Could See Me Now* girl puts some distance between herself and disco with these impressive performances of some less than impressive new songs. The entire album is marked by a strong beat, as the times demand, but most of it is on the slow-dancing side and the outright disco material is held to the last two cuts. More significant, the arrangements are clearly back-ups for a vocalist and not typical multitracked, layered disco productions. This is a singer's album.

And what a singer! Linda Clifford's strong, rich voice can soar over heavy orchestrations, as in the relatively hard-driving *Bailin' Out*,

as easily as it can wrap itself sensuously around the album's ballads. She has one of the best female r-&-b voices around. When it's put to the service of disco, the result is a triumph. Clifford's vocalism and Thor Bal-dursson's percussive arrangement conspire to build *Lonely Night* from a quiet start to a powerhouse finale. This song deserves to be singled out, for it could keep a good new singer in the public eye where she belongs. *E.B.*

RECORDING OF SPECIAL MERIT

TERI DE SARIO: *Moonlight Madness*. Teri De Sario (vocals); vocal and instrumental accompaniment. *Heart of Stone; With Your Love; Sell My Soul for You; Feelin'; You Got What It Takes*; and five others. CASABLANCA NBLP 7178 \$7.98, © NBL8 7178 \$7.98, © NBL5 7178 \$7.98.

Performance: **Fast and fun**
Recording: **Very bright**

As a singer, Teri De Sario is full of surprises. Even after listening to ten of her songs, I could not, for the life of me, tell you what she really sounds like. But I can tell you that she certainly knows how to make disco music. "Moonlight Madness" is packed with dynamic, hot-tempo dance material.

Some of it—*With Your Love* is a prime example—is a throwback to early, heavy-breathing disco, in which vocalism and lyrics mean little and the sexy mood is all. Others, such as the title song, are electronic Eurodisco arrangements that call for the singer to melt away into the strings from time to time.

Then, without warning, we're listening to a lovely ballad (Carole Bayer Sager and Marvin Hamlisch's *Fallin'*) sung simply and convincingly in a little-girl folk-rock voice reminiscent of Janis Ian.

There's straight disco here also, and it too is well done. *Heart of Stone* could easily make it as a single. *Sell My Soul for You* keeps the singer pretty much in the lower register, but it haunts me despite its breakneck tempo (besides, I love the orchestral break toward the end). Best of all is *You Got What It Takes*, which uses De Sario like an instrument in the orchestra and gives the disco mood free rein.

Which style shows the real Teri De Sario? There's no way to find out, no way to reach a personality behind the music. But while you wonder, keep on dancing to these mighty good sounds. *E.B.*

FAT LARRY'S BAND: *Lookin' for Love*. Fat Larry's Band (vocals and instrumentals); vocal and instrumental accompaniment. *Here Comes the Sun; Last Chance to Dance; Everything Is Disco; How Good Is Love*; and three others. FANTASY F-9587 \$7.98.

Performance: **Infectious**
Recording: **Solid**

The cliché has it that fat people are happy people. Judging from the good spirits that pervade this album, Fat Larry (James) fits the cliché. From the big, big disco hit *Lookin' (Tonight) for Love* and the jazzier but still dancey *Here Comes the Sun*, with its big-band horns and beautiful piano solo, to a rip-

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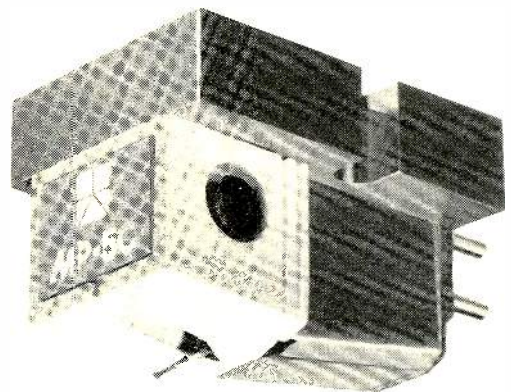
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snortin' salsa number called *Hey Pancho, It's Disco*, this is a happy record. It's also a straight-out dancing record. I'll bet no one could sit still through *Last Chance to Dance*.

There's a lot of good disco music throughout, most of it fast, none of it heavy, and the beat is so skillfully incorporated into the total texture that even discophobes will be able to handle it. Fat Larry and his band are having a very good time. Join them. *E.B.*

INSTANT FUNK: *Witch Doctor*. Instant Funk (vocals and instrumentals); vocal and instrumental accompaniment. *Slap, Slap, Lickedy Lap; Witch Doctor; Bodyshine; Scream and Shout*; and three others. **SALSOUL SA 8529 \$7.98, © S8 8529 \$7.98, © SC 8529 \$7.98.**

Performance: **Uninspired**
Recording: **Fine**

Let's get it said straight off: nothing in Instant Funk's new album has the holding power of *I Got My Mind Made Up*, the disco song that put this nine-man group on the charts for so many months. The inspiration that made that hit superior is missing here. What's been substituted is a sound that is more typically black and funky: a kind of organized chaos with free-floating vocals and freewheeling instrumental solos all held together by the beat.

Several of the cuts are certainly good for dancing. *Witch Doctor* is a slow bump-and-grinder with some electronic embellishments that vary the texture nicely and a terrific horn section up front that promises more than the song delivers. *Bodyshine* has a very nice, fresh, and sexy idea and an arrangement echoing that of the group's earlier hit. With its Afro drums and chanted chorus of "You can get it girl, anytime," this song could easily make it big in the dance halls. And *It's Your Love on My Mind* builds from a ballad-like opening and is marked by truly bravura percussion.

On the whole, the very listenable ballads here are better than the dance cuts. Lead singer James Carmichael is wonderful in *I Had a Dream*, and the gentle *I Want to Love You* spins a soft, sweet mood. But that isn't enough to recommend "Witch Doctor" to Instant Funk's disco fans. *E.B.*

RECORDING OF SPECIAL MERIT

LOOSE CHANGE. Loose Change (vocals); instrumental accompaniment. *Babe; All Night Man; Love Is Just a Heartbeat Away; I Wanna Hold On to You*; and three others. **CASABLANCA NBLP 7189 \$7.98, © NBL8 7189 \$7.98, © NBL5 7189 \$7.98.**

Performance: **Torrid**
Recording: **Perfect**

Watch out for this one. It's one of the best dance LPs of the last few months. Loose Change consists of Leah Gwin, Donna Beene, and Becky Anderson. They made their first big splash on the charts and in the discos with the deservedly popular *Love Is Just a Heartbeat Away*, which is reissued here with all its dynamism intact. The other cuts indicate that its success was no fluke. These are uncommonly exciting vocalists of the big-belt school; listen to their virtuosic close harmony on *Rising Cost of Love*. And they've hitched their wagon to such stars as producer Tom
(Continued on page 136)

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CBS Records

Billy Joel's fans find him even on a beach in Cuba

Havana Jam

COLUMBIA RECORDS went to Cuba to concertize and record for three nights at the Karl Marx (formerly the Charlie Chaplin) Theatre because it was there. Or that, at least, is the impression I get from plodding through the brief but hard-to-read (red ink superimposed on a color photograph) liner notes on the subject by Bruce Lundvall, president of CBS Records, on the back of the first album to issue from the series. The notes come to a rousing ending: "Why did we do it? Because this is what a real music company should be doing. We did it because the musical spirit moved us!" Because it was there.

There is also some guarded talk in the literature accompanying the first two albums from the event ("Havana Jam" and "Havana Jam II," each containing four sides) about some "higher" calling of a diplomatic nature, a hint that this flurry of musical warmth might start a general thaw in U.S.-Cuba relations. Indeed, there was guarded optimism, both when the deed was done (March 2-4, 1979) and when the first "Jam" album came out a few months ago, that such a general thaw might be imminent—guarded optimism in Washington as well as in CBS executive suites. Between then and the release of the all-jazz "Havana Jam II" album occurred the brouhaha about Soviet troops in Cuba, a controversy which has since disappeared as mysteriously as it appeared, leaving the whole diplomatic question in limbo. But because it was there is the more reliable reason anyway. I think it really means "We went to Cuba to get our adrenalin flowing"—and the first two albums indicate that's just what happened.

Columbia took just under two hundred musicians to the concert, among them

Weather Report, several heavy hitters of jazz in the name of the CBS Jazz All-Stars (including Stan Getz and Willie Bobo, the only musicians in the contingent who'd been to the old, pre-Castro Cuba), and a few pop stars: Stephen Stills, Kris Kristofferson, Rita Coolidge, Bonnie Bramlett, and Mike Finnigan, who all appear in the first album, and Billy Joel, who does not appear in either of the first two. They were met by such Cuban groups as Orquesta Aragon (a longtime local favorite), the Cuban Percussion Ensemble, Sara Gonzalez, Elena Burke and Orquesta de Santiago, Pablo Milanes and the Manquare Group (these last two groups, like Billy Joel, failed to make the first two albums), and, finally, Irakere, the romantic lead in the whole saga if not the musical highlight of it. Two groups from each country played in each concert, but these two albums don't reflect that balance. The first is a sort of general sampler of what went on, hopping from jazz to Latin to American pop, and the second is consciously—one might say *self-consciously*—all jazz. But of course there's more to come.

And the fact is that the second album holds together better than the first, although the all-jazz first side of the first album, with Weather Report doing the strong and spacey *Black Market* followed by a spectacular introduction to Irakere and *Concierto para Flauta y Adagio de Mozart*, is my favorite side so far.

Columbia signed the eleven-man Irakere to a record contract on the spot, and the group has since toured with Stills and released an album. Here Irakere's music somehow leaves you with an aftertaste of flutes and dazzling rhythm, but when you're actually listening to a piece of theirs you realize there's an aston-

ishing variety of stuff going on. The first piece, for example, sounds now Latin, now American Big Band, and all the time thematically it's setting up a lovely part for an almost-New Orleans sounding soprano sax. So much is going on when Irakere plays, and yet there's a certain clarity of presentation that American jazzmen would do well to notice. Irakere does not box out the audience with dry, prolonged solos designed mainly to show the other players that the soloist can do something they can't.

Even when it gets into pursuing technique as an end in itself, Irakere turns the "competitive edge" into something theatrical, thus including the audience. At the start of the second album, for example, in *Mil Ciento de Junedad*, the band eventually clears the decks for a trumpet duet—note how close "duet" is to "duel"—by Arturo Sandoval and Jorge Varona, which turns out to be nothing but a high-note-hitting contest. That's *theater*. The audience can dig it, whether or not the audience can conjure up a mental picture of how Maynard Ferguson would stack up to all this. It doesn't have any more to do with music than does the solo for technique's sake, but the difference in attitude is good to hear—and most of the time here Irakere does deliver music, even overloads you with it.

The CBS Jazz All Stars never quite match Irakere for pure excitement. Their *Project S* on the first album and *Sounds for Sore Ears* on the second are full of dry, boring, noodling solos only a jazzbo dinosaur mother could love. But they do get some beautiful, soft, sylvan flute playing out of Hubert Laws (especially in *I Wanna Be* in "Jam II") and some impressive, to-the-point guitar playing from Eric Gale, and in the last cut of the second album, *Tin Tin Deo* (written by Dizzy Gillespie, Charlie Parker, and the Cuban conga player Chano Pozo), Dexter Gordon, Stan Getz, Cedar Walton, Percy Heath, Tony Williams, and Bobby Hutcherson do some terrific ensemble playing.

There's also *Polka Dots and Moonbeams* (most recently revived, you will remember, by John Denver), which runs a little long but is interesting; Gordon plays it first, starting on the melody, and then they run through the whole thing again with Getz playing *off* the melody, achieving quite a contrast in tenor-sax sounds and styles.

Weather Report, which seems to play with an attitude not *too* different from that of Irakere, plays with great energy and verve (or adrenalin), and deserves more than one cut in each album. The Trio of Doom, concocted especially for the jams, with John McLaughlin on guitar, Tony Williams on drums, and Weather Report's Jaco Pastorius on bass, makes three appearances in these two sets, of which I find only *Para Oriente* listenable in that the others degenerate into speed-guitar and speed-bass trips.

THE pop stars don't sound exactly lost in all this, just a little surrounded. Rita Coolidge's version of (*Your Love Has Lifted Me*) *Higher and Higher* stands out like a sore thumb, but it does change the pace. In the one song of his that made the first album, Stephen Stills chose to go native, composing *Cuba at Fin*, with Spanish words and a Latin beat, special-

ly for the event. Kristofferson apparently spoke in Spanish about Che Guevara and then did (in English) *Living Legend*, which at least is partly about Che, so he too carried favor to a degree. Bonnie Bramlett and Mike Finnigan did the only out-and-out rock song here, the run-of-the-mill *How Wrong Can You Be*.

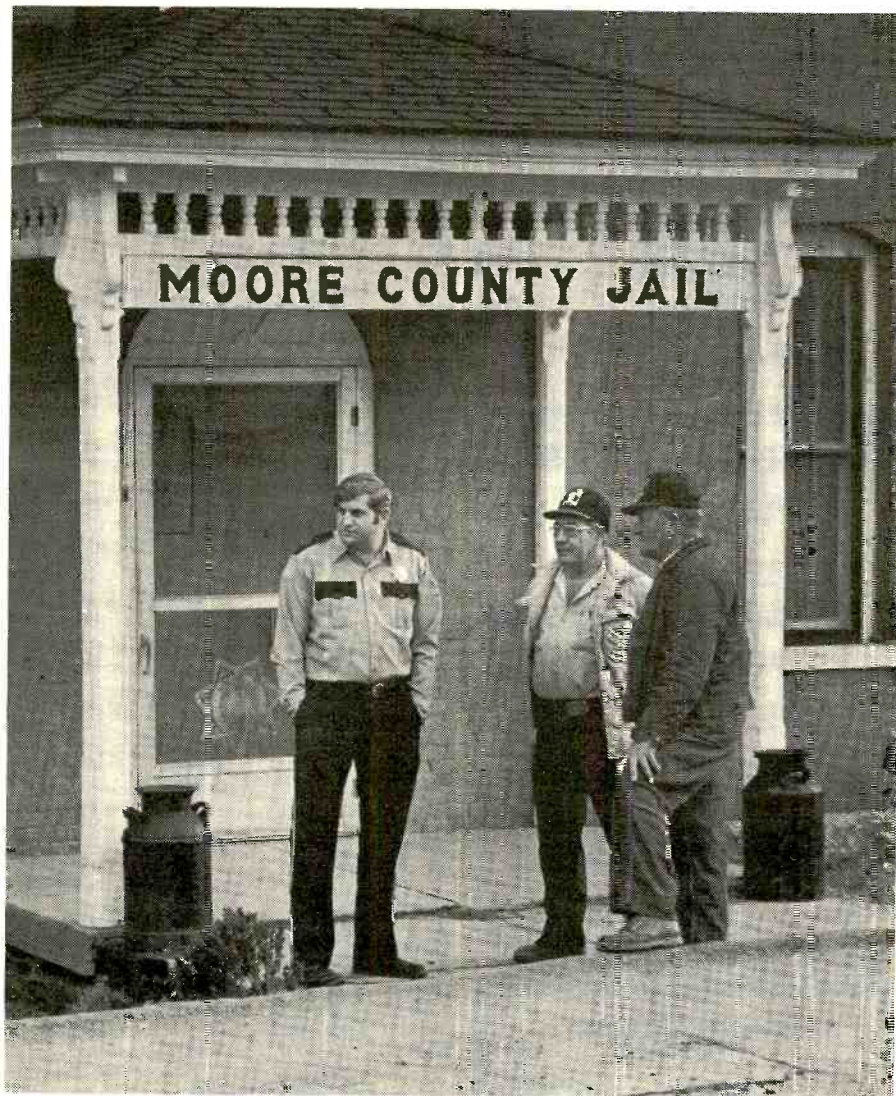
The rest of the first two albums is more or less traditional Latin music. The Fania All Stars' *Juan Pachanga*, a driving, fairly simple number, supposedly was a hit somewhere in Latin America recently. In the U.S. we get little information of this sort, though they recognize *our* hits from Florida radio. The Cuban Percussion Ensemble, which gets one cut in each album (both apparently excerpts from a long piece called *Scherezada/Sun Sun*), has an interesting sound, a cascade of Afro-Cuban rhythms into which is plunked the piano of Frank Emilio, whose phrasing is bound to remind you of George Shearing. It's a very civilized piano amid all this manic pounding. Now and then it takes a leisurely run over a classical theme, which sometimes works well and sometimes sounds like the usual piano-bar routine with all those rhythms superimposed on it. Orquesta Aragon's single slice of the first album, on the other hand, is Latin tradition personified, sounding just like the Havana groups we used to hear twenty-five years ago, all flutes and fiddles and rhythm section.

All in all, the Havana trip has already proved itself on records to be a worthy undertaking. Because It Was There comes through again. The impression you leave with, after sticking your head inside all this recorded music for a couple of days, is that the young Cuban and American musicians—such as those in Weather Report and Irakere—have more in common than was generally suspected. There's no merged or integrated "Cuban-and-American Sound" impression to be had here, but there are signs of kindred spirits separated by those ninety miles of exotic gulf-stream waters. And, yes, in much of it you can hear the difference adrenalin makes.

—Noel Coppage

HAVANA JAM. Weather Report: *Black Market*. Irakere: *Concierto para Flautay Adagio de Mozart*. Stephen Stills: *Cuba al Fin*. Sara Gonzalez: *Su Nombre es Pueblo*. CBS Jazz All-Stars: *Project S*; *Black Stockings*. Orquesta Aragon: *Que Barla Mionda*. Kris Kristofferson: *Living Legend*. Rita Coolidge: *(Your Love Has Lifted Me) Higher and Higher*. Bonnie Bramlett and Mike Finnigan: *How Wrong Can You Be*. Fania All-Stars: *Juan Pachanga*. Trio of Doom: *Dark Prince*. Cuban Percussion Ensemble: *Scherezada/Sun Sun*. COLUMBIA PC2 36053 two discs \$13.98, © P2A 36053 \$13.98, © P2T 36053 \$13.98.

HAVANA JAM II. Irakere: *Mil Ciento de Junedad*; *Contradanza*. CBS Jazz All-Stars: *Polka Dots and Moonbeams*; *Sounds for Sore Ears*; *I Wanna Be*; *Tin Tin Deo*. Trio of Doom: *Para Oriente*; *Continuum*. Weather Report: *Teentown*. Cuban Percussion Ensemble: *Scherezada/Sun Sun*. COLUMBIA PC2 36180 two discs \$13.98.



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Moulton and arranger Thor Baldursson. In hands like theirs, even the simple, relatively quiet *I Wanna Hold On to You* becomes special thanks to ear-catching percussion (drums, bells, and chimes) and beautifully balanced recording. As for the heavier stuff, *All Night Man* alone would justify an album. This cut has everything, from an exciting vocal track to a catchy (and sexy) refrain to a beat that's perfect for dancing. **E.B.**

PEACHES AND HERB: *Twice the Fire.* Peaches and Herb (vocals); instrumental accompaniment. *Roller-skatin' Mate; Gypsy Lady; I Pledge My Love; Howzabout Some Love;* and four others. POLYDOR PD-1-6239 \$7.98, © 8T-1-6239 \$7.98, © CT-1-6239 \$7.98.

Performance: **Ultra-togetherness**
Recording: **Good**

Rarely do two performers achieve such a meshing of intent and vocal sound as did Peaches and Herb on *Reunited*, the spectacularly successful ballad hit that quickly elevated this duo to the top ranks with the release of their platinum album, "2 Hot," about a year ago. Not only was it an exceptionally fine song, but their interpretation was so smoothly wrought it seemed no one else could sing it. The album also showed their ability to handle other types of material, for it also included the sizzling disco hit *Shake Your Groove Thing*. I expected their next album to go a step further in exploiting their remarkable versatility.

"Twice the Fire" is not entirely disappointing. The briskly entertaining dance music it contains is quality disco, and the opener, *Roller-skatin' Mate*, reverberates with an insistent pulse backing sharply punched-out vocals that establish a mood of delightful abandon, a spirit sustained on such other selections as *Gypsy Lady* and *Howzabout Some Love*. Yet there's nothing here that's really special. Peaches and Herb still sing with verve and cohesion, but they somehow seem less than extraordinary. Perhaps their last album was too tough an act even for them to follow. **P.G.**

RECORDING OF SPECIAL MERIT

RUFUS AND CHAKA: *Masterjam.* Chaka Khan (vocals); Rufus (instrumentals); vocal and instrumental accompaniment. *Heaven Bound; Body Heat; Do You Love What You Feel; Live in Me; I'm Dancing for Your Love;* and four others. MCA MCA-5103 \$8.98, © MCA-5103 \$8.98, © MCA-5103 \$8.98.

Performance: **Tight and good**
Recording: **Very good**

Rufus has consistently benefited from solid production, a factor, no doubt, in the unusually high average level of their output. This time around, Quincy Jones produced, fashioning an album ideally suited to the group's style, which emphasizes the balanced interplay between male-ensemble voices and the sensual caterwauling of lead singer Chaka Khan. The Seawind horns, augmented by others, plus strings, are worked into arrangements as tightly woven as winter underwear. Furthermore, the selections are basically quality stuff. Of special note here is Jones' old hit *Body Heat*, which he has reshaped with a pop-soul treatment that is good for at least a few points on the thermometer, and

I'm Dancing for Your Love, which sounds like it should become a hit. Although there's nothing especially new here, Rufus and Chaka do what they do so well that cheers are in order. **P.G.**

RECORDING OF SPECIAL MERIT

THE VILLAGE PEOPLE: *Live and Sleazy.* The Village People (vocals); vocal and instrumental accompaniment. *Fire Island; Macho Man; In the Navy; Y.M.C.A.; Sleazy; Rock & Roll Is Back Again; Ready for the 80's;* and five others. CASABLANCA NBLP-2-7183 two discs \$13.98, © NBL8-2-7183 \$13.98, © NBL5-2-7183 \$13.98.

Performance: **A real surprise**
Recording: **Fine**

We may never know the *real* reason lead singer Victor Willis left the Village People—a quest for greater artistic freedom and a dispute over fees and billing in the group's upcoming first film have both been suggested—but his departure has occasioned a transformation that's all for the better. With Willis replaced by Ray Simpson (brother of Valerie Simpson of Ashford and . . .), at least half of this new two-record set is downright wonderful dancin' stuff, far and away the best music this group has ever made.

I'm talking about the "sleazy" half. The less said about the "live" half, which documents a concert performance of the People's biggest hits, the better. But the second disc is party time! The opening guitar riff in *Sleazy* tells us immediately that the Village People have discovered rock, and the doubled tempo right after that tells us they haven't forgotten disco. David Hodo's vocal work here isn't subtle, but it shows a commitment Willis never achieved. There's more freshness in this one song than in *Y.M.C.A., In the Navy*, and *Macho Man* combined.

And there's more. Ray Simpson's vocal lead helps turn the fusion-style *Rock & Roll Is Back Again* ("Rock and roll is back again/It's still alive/But everybody calls it boogie") into a rollicking, infectious dance number. *Ready for the 80's* has "smash hit" written large all over it, both because of its anthem-like appeal to any number of sexual and racial minorities and because it is a wonderful refinement of the successful Village People sound: a basically chanted lead vocal backed up by an all-male close-harmony chorus. Simpson's singing is a lot easier to take than Willis' ever was, and the instrumental work is more inventive than anything I've heard on the group's records before. If even the Village People can grow into real musicians, there must be life in the old disco yet. **E.B.**

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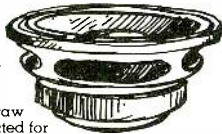
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4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	21
22	23	24
25	26	27
28	29	30
31	32	33
34	35	36

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ADVERTISERS' INDEX

READER SERVICE NO.	ADVERTISER	PAGE NUMBER
	Akai America, Ltd	9
	AKG Acoustics	115
1	Allison Acoustics	14
2	Altec Corp./Sound Products Division	Cover 3
3	Ampex Corp	53
	Arctic Lights	99
4	Audio Dynamics—Cartridge	73
60	Audio Magnetics	27
5	Audio-Matic Electronics	120
6	Audio Supermart	136
	Audio-Technica U.S., Inc.	98
7	Audiovox	131
8	Avid Corporation	19
62	Bang & Olufsen of America	120
	BASF	21
	Bose Corporation	36, 37, 58
	Burns Audiotechnics, Inc.	25
10	Consumers Company	122
11	dbx, Inc.	90
12	Delco Electronics Division	106
13	Discount Music Club	18
63	Discount Sound	133
14	Discwasher	4
	Dual	121
	Electro-Voice, Inc.	16
15	Empire Scientific Corp	2
	Fisher Corp	54, 55
61	47th St. Photo	122
	Fuji Photo Film, USA	71
17	Harman Kardon, Inc.	42, 43
18	Hi-Fi Buys	136
19	Illinois Audio	59
20	Institute of Audio Research	105
21	International Hi-Fi Dist.	133
22	J & R Music World	22
	Jack Daniels	135
23	Jensen Sound Laboratories	129
	J S & A National Sales Group	17
24	KEF Electronics, Ltd	111
25	Koss Corporation	Cover 4
26	Leigh Instruments	94
	Lord Calvert Canadian	81
27	3M Company	89
28	Magnepan, Inc.	113
29	Maxell Corp. of America	67
	Mazda	51
31	McIntosh Laboratory, Inc.	56
32	Memorex Corp	7
33	Mitsubishi Car Audio	23
34	MXR Innovations, Inc.	117
35	Osawa & Company	132
	J. C. Penney	11
36	Phase Linear	119
41	Pickering & Company	8
	Radio Shack	45
	R J Reynolds/Camel	86
	R J Reynolds/Salem	103
37	R J Reynolds/Winston	57, 103
	Robins Industries	116
	Ron Rico Rum	41
38	S.A.E.	32
39	Sansui Electronics Corp	101
40	Sanyo	35
42	Sennheiser Electronic Corp.	112
43	Shure Brothers	47
44	Shure Brothers	95
45	Sony Corporation	39
46	Sony Corporation	77
47	Sony Corporation	116
48	Soundcraftsmen	10
49	Sound Reproduction, Inc.	133
50	Stereo Corporation of America	125
	Stereo Discounters	128
51	Studer/Revox America	49
52	TDK Electronics	12
53	Teac Corporation of America	65
54	Technics by Panasonic	15
	Time-Life Records	28, 29, 30, 31
55	Top Discount Audio	125
	United Audio	121
85	U.S. Pioneer	Cover 2, 1
57	Vector Research	85
58	Wisconsin Discount Stereo	128
	Yamaha International Corp	127
59	Yashica, Inc.	97

Simels Live

By Steve Simels



Mark Johnson (center) and the Wild Alligators at Kenny's Castaways.

SCOUTING TALENT

ONE of the big parlor games for rock critics in my neck of the woods is periodically discovering, and then trying to hype, the Best Unsigned Band in New York City. Everybody—but *everybody*—does it, and roughly once a year the bigger “alternative” papers go so far as to make a cover story out of it. Last summer, for example, a writer for the *SoHo Weekly News* was agitating for canonization for the Speedies, a pretty-boy power-pop band with Bowie influences (but otherwise enjoyable), all of whose members are around eighteen and live with their parents in the Bronx. Meanwhile, a more cerebral resident critic at the *Village Voice* came out in favor of the Feelies, a dull neo-psychedelic band owing a little to Television musically but looking rather more like the kids who worked on your high-school audiovisual squad, all of them around eighteen and living with their parents in New Jersey.

Despite my sorry track record (and a critical archconservatism that still leads me to conclude that disco is a fad), I must predict that the Speedies will probably give it all up to become surgeons and that the Feelies will make an album for Sire that I will find, three years after its release, to be pretty good. Prognostications aside, this does seem to be a good time for musicians young enough to live at home and ingenious enough to give their bands names that end in “ies.”

The appeal of this game of musical cheers, of course, is that it allows you to be the hippest person in town, a distinction few among us have the strength to resist aspiring to. And the built-in problem with the thing is that you inevitably develop a sort of “my dog is bigger than your dog” attitude about anybody else’s discovery. So, the other day, when a friend whose opinions I normally respect told me to run to a downtown club and catch a group he insisted was the Best Unsigned etc., I told him, firmly but abusively, to flake off because in my temporary opinion that honor belonged to the Mix (see this column for September last).

Unfortunately, no sooner had the words escaped my big mouth than I recalled that the Mix were, in fact, now *signed*; their debut album on Leber and Krebs’ new budget label will probably be in the stores by the time you read this. Imagine my distress, then—caught

without a private fetish to fall back on! However, determined to have as bad a time as possible, I took my buddy’s advice, made the trip to Kenny’s Castaways, and took in a set by Mark Johnson and the Wild Alligators. Now I should, in all honesty, mention here that my motivations for the trip were not all along musical lines. To put it bluntly, Kenny’s has this one waitress who . . . well, what the heck, you know what I’m talking about. But when the music began I found that between my critical faculties and my libido it was no contest; Johnson and the Alligators had me hooked the minute they hit the cramped excuse for a stage. So guess what? They just may be the Best Unsigned Band in New York City.

The particulars stack up like this. Johnson is a seasoned Southern (North Carolina) rocker, but he works in a style much closer to one of those Southern anomalies such as Alex Chilton than to, say, Gregg Allman. Johnson’s Alligators, like Chilton’s Big Star, often sound like the last great Sixties garage band (the one cover tune they did, for example, was the Searchers’ British Invasion classic *Everytime You Walk in the Room*). But what makes Johnson different from lots of similarly inclined revivalists, Chilton included, is that there’s more than a bit of Hamburg-period John Lennon in him, both visually and vocally. He comes off as tough and winsome, and he seems to believe in his material with the kind of fervor reserved for the truly special ones. If I tell you that the best song of the evening, his *I Don’t Want to Go to School Today*, did not for one moment sound like the work of an over-age rock veteran trying to concoct a *pro forma* teen anthem, you should get a pretty good idea of what a hot little act it is.

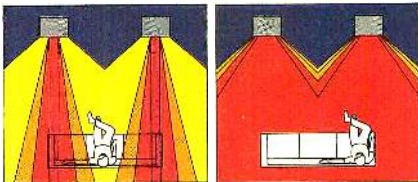
THE band is still slightly ragged around the edges, of course. Johnson is just beginning to make the transition from the smaller, folkier clubs, where that raggedness almost works for him, to the rock dance joints he clearly needs to work in to learn how to gauge the shape of his set accurately. But I wouldn’t be at all surprised if in about six months he turns out to be a contender: he’s already a marvelous writer and a riveting presence. Even if I didn’t discover him all by myself. □

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