

Stereo Review

MARCH 1973 • 60 CENTS

SPECIAL TAPE RECORDER ISSUE



432936 BCH HAZEL693 SEP73 7 1J
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HAZEL GREEN ACAD
HAZEL GREEN
KY 41332

Statement

50/DYNAQUAD RECEIVER

TUNING LOUONESS

92 94 96 98 100 102 104 106 108 MHz

70 80 100 120 140 160 KHz

-20

+8

POWER OFF

TREBLE

LEFT - RIGHT

BALANCE

TONE

TAPE DUBBING STEREO PHONES

4-CH TAPE HIGH FM LOUD MAIN REMOTE IN

NORM MONTR FILTER HUSH OFF (FRONT) (REAR)

OUT

SPEAKERS (DYNAQUAD)

“ The performance of the Sherwood S8900A left nothing to be desired. Both its FM and audio sections delivered what we would consider ‘state of the art’ performance for a receiver.”

Hirsch-Houck Laboratories

Sherwood Excite



SHERWOOD | S-7900A STEREO

TUNING

STEREO

FM 88 9
AM 55

STEREO
LEFT REV
RIGHT MONO
MODE

FM AM
PH AUX
SELECTOR

BAS
0
2
4
6
8
10
L

Hirsch-Houck Laboratories has a well deserved reputation for conducting incisive "un-puffed" tests on sophisticated audio equipment. Which makes their report on our S8900A [FM] and S7900A [AM/FM] receivers in February *Stereo Review* doubly gratifying. In almost every case their measurements exceeded our specifications.

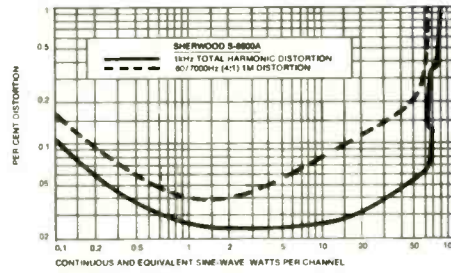
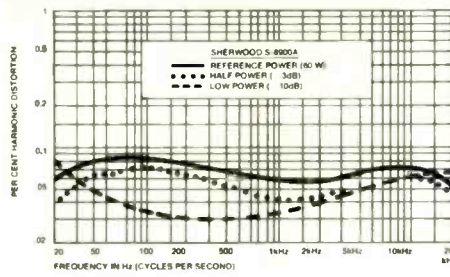
Example: Our power rating is 60 watts per channel [8 ohms, both channels driven]; Hirsch-Houck measured 75 watts.

Example: At rated output we specify distortion [from 20-20,000 Hz] of 0.3%; Hirsch-Houck measured only 0.07%!

Example: We specify FM sensitivity of 2.7 uv for 50 db signal to noise ratio; Hirsch-Houck Labs measured 2.3 uv.

**Other excerpts:
Amplifier Section:**

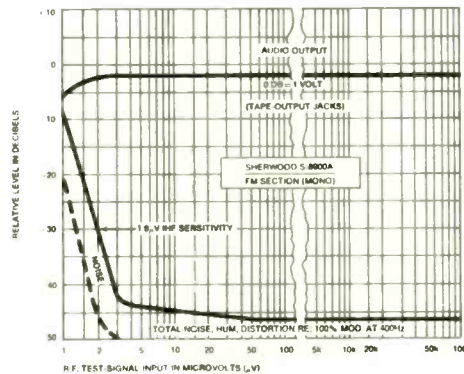
Laboratory Measurements. The 60-watt power rating of the S-8900A was quite conservative: in our tests, signal-waveform clipping occurred at 75 watts per channel, with both channels driven into 8-ohm loads. Even with 16-ohm loads, the output was 46 watts per channel, and into 4 ohms it was an impressive 108 watts per channel. The 1,000-Hz harmonic distortion was typically about 0.025 per cent in the 1- to 10-watt range, and did not exceed 0.1 per cent from 0.1 watt to over 70 watts per channel. IM distortion was under 0.2 per cent for all power outputs under 60 watts—all the way down to the vicinity of 15 to 20 milliwatts. There was a typical level of about 0.05 per cent IM at most usable power levels. Unlike many receivers, the S-8900A can deliver its rated power at all audio frequencies. At 60 watts per channel, and at 30 and 6 watts as well, the distortion stayed within the 0.06 to 0.07 per cent range over the full 20- to 20,000-Hz band."



Tuner Section

"The S-8900A's FM tuner was as noteworthy as its amplifier section. Its measured IHF sensitivity was 1.9 microvolts, and a 50 dB signal-to-noise ratio [with which a program could be considered listenable] was achieved at only 2.3 microvolts. The measured distortion was essentially the 0.5 per cent residual of our signal generator, and the noise was a very low -76 dB for signals exceeding about 100 microvolts.

"Stereo separation was exceptional, exceeding 40 dB from 170 to 2,200 Hz. and more than 27 dB from 30 to 10,000 Hz. The capture ratio was a very good 1.2 dB at 1,000 microvolts, falling to 7 dB at 10 microvolts. "Alternate-channel selectivity and image rejection were outstanding, measuring, respectively, 91 and 100 dB."



Overall Comments

"With the current publicity being given to various quadraphonic recording systems, it is well to remember that the Dynaquad can synthesize rear-channel ambiance from stereo material as well as any system—and better than most."

Reprints of the entire Test Report are available from us or from your nearest Sherwood Dealer.

But don't rely on mere words when you can experience one of the best sounds in the medium \$400 price range. [\$429.95 for the S8900A and \$459.95 for the S7900A]

See your Sherwood dealer.

Sherwood Electronic Laboratories, Inc., 4300 North California Avenue, Chicago, Illinois 60618

The Sherwood Experience

Only the sound is heavy.

Koss breaks the lightweight sound barrier with a revolutionary new High Velocity Stereophone.

Up until now a lightweight phone meant a lightweight sound. But not any more. Because Koss engineers have developed a micro/weight, high velocity type stereophone that sounds like a heavyweight. And that's an achievement no music lover will take lightly.

Unique electro-acoustical design.

Unlike conventional stereophones which contain the sound waves in a sealed acoustical chamber, the new Koss HV-1 High Velocity Stereophone vents the back sound waves to the rear. Without raising the resonance or inhibiting transient response. This unique electro-acoustical design concept provides not only unusual lightness and hear-thru characteristics, but also the exciting, full-range Sound of Koss as well.

Superb tonal quality.

And by substantially reducing the mass of the moving diaphragm assemblies used in the HV-1, Koss has been able to achieve a wide-range frequency response of unusual fidel-



ity. Delicate overtones, which add to the faithfulness of the reproduction are retained. Yet, bass response is extended, clean and "unmuddied."

Stylish low-silhouette design.

Designed to fit close to the head, the new Koss HV-1 Stereophone has a stylish, low-silhouette design without the cone-type projections found in other headphones. This slim design permits unusually fine acoustical tuning of the element chamber at the factory. Which means that, unlike other lightweight phones, every Koss HV-1 Stereophone provides the breathtaking Sound of Koss. And that's not something to treat lightly.

Designed for unprecedented comfort.

You'll listen in comfort hour after hour. Because the new Koss HV-1

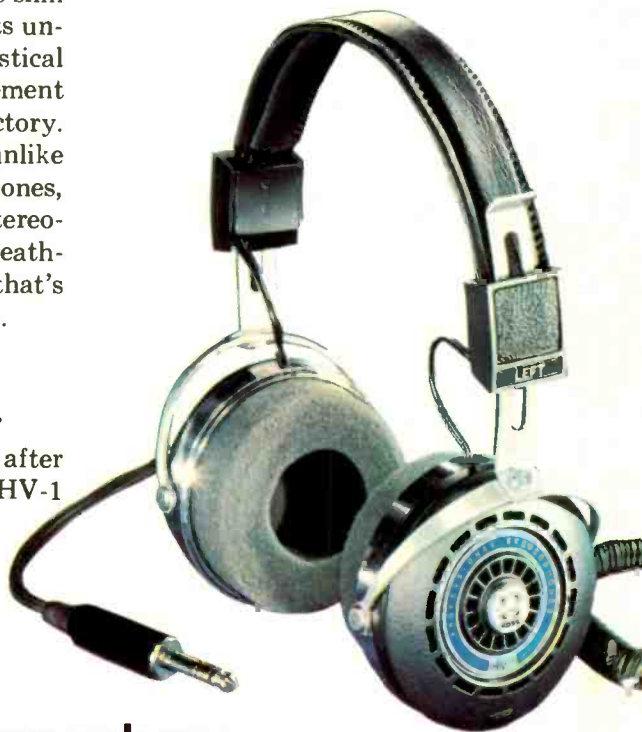
is lighter than 10 ounces. And because it has the perfect balance you expect in a Koss Stereophone. Not to mention a glove soft vinyl-covered headband and acoustical sponge ear cushions.

Hearing is believing.

Listen to the Koss HV-1 Stereophone at your favorite Hi-Fi Dealer or Department Store.

And get the whole story on the heavy Sound of Koss by writing Virginia Lamm, c/o Dept. SR-372.

We won't take your interest lightly either.



 **KOSS HV-1 stereophone**
from the people who invented Stereophones.

FORMERLY HI FI/STEREO REVIEW

Stereo Review

MARCH 1973 • VOLUME 30 • NUMBER 3

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“THE BEST VALUE IN A QUADRAPHONIC RECEIVER.”

—High Fidelity Magazine
January, 1973

Excerpts from the equipment report in *High Fidelity*, based on test data and measurements obtained by CBS Laboratories:

“The Fisher 504 is so loaded with features and so competent in its performance that we can confidently say it represents the best value we’ve yet encountered in a quadraphonic receiver.”

“When the unit is switched from quadraphonics to the stereo mode, an odd thing happens. Into 8-ohm loads the total rated power increases from 128 watts (32 x 4) to 180 watts (90 x 2); into 4-ohm loads it *drops* from 160 watts (40 x 4) to 100 watts (50 x 2). This behavior... is a concomitant of the unusual 4/2-channel switching configuration plus the amplifier’s feedback circuits... Suffice it to say that for quadraphonic use, the 504 delivers plenty of power for each of the four loudspeakers—including extremely inefficient ones—of conventional design in any normal room, and even

enough power for two sets (eight loudspeakers) in many situations.

“And being conservatively rated by Fisher (as the lab data show), it is also an unusually clean amplifier at rated output... This is... over-all, the best amplifier performance we’ve yet encountered in a quadraphonic receiver.

“The tuner also is exceptionally fine. The stereo quieting curve is so good that it resembles the *mono* curve in many an inexpensive receiver; the 504’s mono curve is superb. The ultimate quieting in both (better than 50 dB in stereo, 60 dB in mono) suggests the finest of separate tuners.”

“A price of \$529.95 is not peanuts, but we have yet to examine in detail any quadraphonic receiver—at any price—that offers more, over-all, to the music listener.”

For a free reprint of the entire test report, write to Fisher Radio, Dept. SR-3, 11-40 45th Road, Long Island City, N.Y. 11101.

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Studio - Standard

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EDITORIALLY SPEAKING

By WILLIAM ANDERSON

BETTER LATE

ALTHOUGH it is unlikely that very many of you spend any professional time, as I do, contemplating the front elevations of the world's newsstands, you may nonetheless have picked up, in a purely accidental way, an interesting fact about them. Say, for example, that you were to stand in front of one some time in mid-February and, further, that you were able to force your attention past all those provocative coverlines, teasing tip-ons, and other contending visual outrages. You might then just notice that Time's winged chariot seems to be accelerating, that most of the monthly publications on display already bear a March dateline. But before you start blaming a devious publishing industry for this transparent piece of temporal flummery, reflect a bit. Yes, logically, those "March" issues are really "February" products—but, given a choice, would you not, late in the month of February, prefer to read a spanking-new, press-fresh March issue of your favorite journal than a tired, limp, and shelf-worn February one?

Time and timeliness are of course of at least as much interest to us as they are to our readers. Though a good part of the musical subject matter we deal with is surely timeless, equipment test reports and (particularly) record reviews just as surely are not. We consider these "news," and so, apparently, do a number of our readers, who write from time to time to accuse us of being late with it. To some extent, as the paragraph above makes clear, it is only an *apparent* lateness. But, since magazines (good ones, at least) cannot be thrown together in a day, there *is* an unavoidable delay between the birth of a record, let us say, and the announcement of that fact in print. This column, for example, is being written on January 19, at the very last moment possible for inclusion in March. Presses are already rolling on parts of the issue, and the balance rolls next week. The rest of this month will be spent in printing some 360,000 copies and in folding, collating, binding, trimming, addressing, and packaging them so that they can enter the mails the first week in February and be shipped throughout the country to reach newsstands by the promised distribution date of February 20. Deadlines in these operations are firm: presses and people can run only so fast, and every job depends on the timely execution of all those going before.

Working back in time (though forward in space) from this page, what of the rest of the issue? Well, the assembly process can be considered to have started with the sending of typescript—articles, test reports, reviews, *etc.*—to the printer to be set into type. "Edit-copy" dates for this issue were December 13 to 28 (note that this is *editing* time, not writing time). The time between then and now (January 19) was taken up with typesetting, proofreading, picture research, layout, artwork, headline and caption writing, correcting page proofs, and sundry other technical operations by a relatively small and harried but blessedly most productive staff.

But what, you say, about those reviews? Let us take another step back, beyond the edit-copy dates. Our regular reviewers are responsible for from ten to twelve reviews each month, deliverable about the fifteenth. Since we have a distaste for critical ambulance chasing, we take care to give our reviewers ample time—a minimum of two weeks, barring special cases—to do their jobs well. Thus, most of the reviews in this issue are of discs sent to reviewers about December 1. Discouraging? What, then, of that poor disc received here about December 5, too late to make the March issue and now scheduled for April? And what if that same disc, through someone's unaccountable carelessness, had already mouldered for several weeks in the reviewer service department of the issuing company? Despair not, but consider: the record market at any given moment is so crowded with both old and new releases, so indescribably rich in unplumbed pleasures, that time simply ceases to be a factor. Get off that chic neophile treadmill—no one can keep up with it anyway—and join all us liberated sybarites over here in the Garden of Sonic Delight!

What do you think of a guy who bought a \$150 turntable to go with a \$75 amplifier and a pair of \$40 speakers?

Audio "accountants" have formulas for appropriating funds to the various components in a stereo system.

Usually they recommend about 20% of the total to take care of the turntable and cartridge, which is OK if your total is \$500 or more.

But what do you do if you really love music, and have a 10-LP-per-month habit that leaves you with peanuts to spend for hardware.

Smart.

If you followed the accountants' advice you might end up with a \$5 or \$10 cartridge in a \$30 changer. It would be arithmetically compatible, and might even sound OK.

But later on, when you can afford that monster system you've had your eyes on, you might find that your records sound worse than they did on your old cheapie system—because the inexpensive changer, with heavy stylus pressure and unbalanced skating force, was grinding up the grooves. And your cheap amp and speakers wouldn't let you hear the damage.

And now that you've spent a pile on high power, low distortion electronics, and wide-range speakers, you have to spend another pile replacing your record collection.

So, if you think you will want the best amplifier and speakers later, be smart and get the *best turntable* now . . . the BSR 810.

Send for detailed specifications.
BSR(USA)Ltd.,Blauvelt,N.Y.10913



BSR



LETTERS TO THE EDITOR

Radio Opera

● I was enamoured of the Metropolitan Opera broadcast story in the January STEREO REVIEW. Stephen Rubin did a splendid job creating an atmosphere and the feeling of what the broadcasts are all about, instead of falling back on the usual interviews, quotations, etc., etc. Of course so much had to be omitted, but I think Mr. Rubin's sorting out of the facts made a hell of a story.

Only one criticism: our mail averages 10,000 pieces per season rather than 6,000, as Mr. Rubin said.

GERALDINE SOUVAINE, *Producer*
Metropolitan Broadcast
Intermission Features
New York, N. Y.

● I enjoyed the article about the Metropolitan Opera on the air, but surely either writer or editor goofed. A more complete article would have had a separate page listing all the stations that carry the opera broadcasts, by state and city as well as by station call letters. For example, I don't know what stations carry the opera in this area. Also, the article never said if these broadcasts are AM or FM only. However, I am not alone. About three years ago I called the Texaco office in Cincinnati to ask what station carried the Met opera broadcast and nobody in the office knew. So apparently the appeal of opera to a limited audience, despite the efforts of Texaco, continues in effect.

J. H. WEBB
Dayton, O.

No goof, either by writer or editor—the list is simply too long. The Texaco-Metropolitan Opera Radio Network's own bulletin for the 1972-1973 season runs to seven pages, listing city, state, call letters, broadcast power and dial numbers, AM and/or FM, and network affiliation. There are 254 stations, 96 of them college-owned and noncommercial—but that doesn't mean they are back-of-the-dorm pipsqueaks: the St. Johns University station KSJR at Collegeville, Minnesota, broadcasts at 150,000 watts on FM. In the Dayton area, Mr. Webb's best bet for opera is likely to be WBST-FM (Ball State Teachers College) in Muncie, Indiana, broadcasting at 50,000 watts, 90.7 on the dial; or perhaps WGUC-FM (University of Cincinnati), 20,000 watts, 90.9. The fact that Texaco's Cincinnati office staff was innocent of the company's expensive

good-will gesture is no proof of opera's "limited appeal." It is, after all, much easier to believe that the managers of 158 commercial radio stations know something about their audiences. Readers with inquiries about the broadcasts can write to G. H. Johnston, Inc., 59 East 54 Street, New York, N. Y. 10022.

● It says in your story on the Opera Quiz, "... Tony Randall ... announced, without really explaining why, that he didn't like Mozart." What a distortion! The question given the panel was, in part, "Is there a masterpiece you don't like?" We each answered and my choice was *The Magic Flute* and I gave my reasons. Of course in disclosing it I was confessing it a masterpiece, but enough. Why didn't your reporter listen to the tape? Too much work, too much like research. Hearsay is so much easier.

TONY RANDALL
New York, N. Y.

Mr. Rubin replies: "Mr. Randall is perfectly correct—no matter how plausible the story, how reliable the source, always check. Apologies."

● In the January issue of STEREO REVIEW the article "Radio Opera" contains a reference to an Opera Quiz question concerning the identity of Lohengrin's mother, which apparently stumped the experts. In the margin of that page, in practically illegible print, the author's answer to the question is "We're working on it." In the event that at this time you are still involved in a search for the answer, allow me to briefly enlighten you so that your valuable energies may be directed to more challenging scholarly pursuits.

Lohengrin's mother was Queen Konwiramur of Brobarsz whom Parzival (non-Wagnerian spelling of Parsifal) married in between his exploits at King Arthur's Round Table and his experiences at Monsalvat. Parzival had twin sons: Kardeis, the first-born, who later became king of Brobarsz, Waleis, and Norgals, and Lohengrin, keeper of the Grail.

My source for this information is a delightful book, *Deutsche Heldensagen für Jugend und Volk*, by Gustav Schalk, 22nd Edition, published by Neufeld and Henius, Berlin.

KURT STEINBRECHER
Seattle, Wash.

All of which leaves us almost speechless. The

question was a . . . well . . . difficult one, and in solving it Mr. Steinbrecher gives evidence that he is most aptly named.

Marilyn Monroe, *Locus Classicus*

● With reference to the Editor's January column, I think the line "classical has no vocal" is one of Marilyn Monroe's in *The Seven Year Itch*. And printing two reviews of the new John Denver album was an inspiration.

JIM BLAUERT
Riverside, Cal.

Doubles on Denver

● I imagine you will get a number of letters about this, but I've got to get my two cents in. I am referring to the appearance of two reviews of the same John Denver album in the January issue. How did this happen, and just how is it decided which recordings receive the "Special Merit" rating?

DAVID GLAGOVSKY
Haverhill, Mass.

It was done accidentally on purpose, our sly way of reminding readers from time to time that the world of criticism, at least, has yet to be done up in neat little packages labeled "acceptable" and "not acceptable" opinion. John Denver happens to be a great favorite around these premises, but we have long since faced up to the fact that the whole of creation does not, alas, share our good taste. "Special Merit" designations are the work of the individual reviewers, and some of them are more generous souls than others.

Classical Has No Vocal

● I read with interest the January-issue editorial "Classical Has No Vocal," in which the Editor remarks, "In a friendly discussion not long ago about the differences between popular and classical music (there are many).

... I ask the Editor what are these many differences? Are there really inherent differences or are these merely phony (i.e., man-made, not God-made) categories? If there is truly a "Popular Music" and a "Classical Music" in what categories do *Rhapsody in Blue* and *Porgy and Bess* fit? And if these works do not fit a category, do they or do they not prove that the categories are phony? I have read a number of articles and books (including Henry Pleasants' excellent ones) on the subject and still have found no pertinent answers to these questions among them. I would appreciate the Editor's at least attempting to supply some kind of answer.

LARRY JOHNSON
Rochester, N. Y.

The Editor replies: "Something in Mr. Johnson's tone tells me that he would like me to confess that I lied about the categories, but I can't, because I do believe in them. God, of course, doesn't make categories—he holds the whole of His creation in His hands and therefore doesn't need them. Man, with his limited understanding, does need them, but that doesn't make them any more 'phony' than anything else he invents. Though it is currently fashionable to try to blur the distinctions between various levels of artistic achievement (often with laudable intentions) and, indeed, even to deny that there is any such thing as 'art' at all, I beg leave to suggest a simple rest to Mr. Johnson and other doubters: take any one band from a late re-

(Continued on page 10)

**We are the Garrard Engineers.
When you finish reading this ad
we will have one thing in common.
You will understand the Zero
100 the way we do.**

We aren't teachers. And you are probably not engineers.

But we can explain the Zero 100 to you because, in all honesty, the Zero 100 is not a difficult concept.

Neither was the wheel, although it took millions of years to come into being.

It took us seven years to create the Zero 100.

And it would take more than this ad to explain those seven years. The attempts that failed, the plans drawn and redrawn, the designs built and discarded, computed and remeasured.

Actually the problem seemed to be simple.

Distortion.

Until the Zero 100, no automatic turntable could play a record

without

causing dis-

tortion in the sound you heard.

Records are cut at right angles, from the outside groove to the final one. To reproduce this sound perfectly, you need a turntable with a cartridge head that tracks the record exactly as it was cut, at the same 90 degree tangency.

But seven years ago, there was no automatic turntable that could achieve this consistency of tracking.

Our solution?

A turntable like no other turntable. A turntable with two arms.

The first arm of the Zero 100, the normal looking arm, is the one with the cartridge head. The auxiliary arm, our innovation, is attached to the first arm by a unique system of ball bearing pivots.

These precision ball bearing pivots are built into this auxiliary arm, enabling the cartridge head to maintain a consistent 90 degree angle to the grooves of the record.

Today, you can play a record on the Zero 100 and hear reproduction you've never heard before.

Free of tracking distortion.

Today, you can pick up issues of Stereo Review. High Fidelity. Audio. Rolling Stone. The Gramophone. And read what the reviewers say about the Zero 100.

After seven years, we are men who have achieved our goal.

We are proud to present it to you.

The Garrard Engineers

\$199.95 less base and cartridge.
Mfg. by Plessey Ltd. Dist. by British Industries Co.

CIRCLE NO. 103 ON READER SERVICE CARD



lease by, say, the Grand Funk Railroad and any one of Beethoven's late quartets. Then try to fit them into any single category more definitive than the grandly general "music"—and admit defeat.

"As for the two Gershwin works, I would say they are 'popular,' but my reason for saying so may send Mr. Johnson into apoplexy: they are popular because those who enjoy them are more likely to turn for other musical pleasure to jazz piano or a Broadway musical (which to me are popular categories) than to a Mozart sonata or a Bach cantata (classical). These Gershwin works do, in fact, exist in a hard-to-classify grey area somewhere between the outer extremes of 'art' music and 'folk' music—which is why, I suspect, Mr. Johnson chose them. But such hard cases

make bad categories—driving me, for example, to rely on shifty circumstantial evidence.

"As for the rest of the 'many differences,' they are the stuff of 'friendly discussions' or of a book, a book which, as Mr. Johnson points out, probably hasn't been written yet. I submit, however, book or no, that most people already know on which side of the question they stand."

Banding with the Basic Rep.

● I would like to respond to Paul Kresh's review of the Mozart recording by the London Symphonic Band (January). Although I agree that band transcriptions of basic repertoire works are unnecessary and in somewhat questionable taste, Mr. Kresh's allegation that the symphonic band is just a "nostalgic . . .

outdoor diversion . . . but indoors one soon begins to yearn for the sweet sound of a violin" shows an antiquated or perhaps uneducated viewpoint regarding the importance of the symphonic band as a performing medium.

Despite fine recordings by the Eastman Wind Ensemble, the symphonic band has long been neglected by recording companies. Quantities of high-caliber original band music (e.g., Persichetti's Symphony No. 6 and Holst's Suites in E-flat and F) have never been recorded. As a symphonic band conductor and composer, I feel that Mr. Kresh's offhand and musically unsophisticated dismissal of the recording should have been directed toward the producer or conductor's poor choice of program rather than toward the performing medium itself.

LEON JANIKIAN
Amherst, Mass.

Mr. Kresh replies: "Offhand and unsophisticated as I am, I still like my outdoors music without, my indoors music within."

Obscurity (continued)

● I thoroughly enjoyed J Marks' article "Hall of Obscurity" (December). I have been a follower of the English group Family for a number of years now. In Mr. Marks' appraisal of this group he erred in stating that "that same rumbled voice (Roger Chapman's) takes on an earthy bark as it tackles a high-energy number like *Variation on a Theme of the Breeze*." It should be noted that *Variation on a Theme of the Breeze* is actually a twenty-five-second instrumental at the end of side one of "Music in a Doll's House." Perhaps he had *The Breeze* in mind, or else *Old Songs New Songs*, which immediately precedes *Variation*.

Also, "Family Entertainment" is not the newest Family album. The latest one was released in October 1972 and is called "Bandstand." Before this, around January 1972, they released "Fearless." I do agree with Mr. Marks in choosing their first album over their second, but I find that these two newest ones are even better yet.

DENNIS M. CALLAHAN
Westborough, Mass.

At the time of writing, "Bandstand" had not yet been released. The problems of timeliness, printing schedules, and the like are discussed in this month's "Editorially Speaking" column.

Four-channel

● The report on four-channel decoders in the December STEREO REVIEW is the finest example of its type I've ever read. The testing seemed knowledgeable, thorough, and meaningful. The results were reported clearly and comprehensibly. As a reader trying to make a buying decision, I got what I needed and wanted. All this, with a devilishly difficult and controversial subject.

LESTER JOSEPHSON
New York, N.Y.

Ragtime Revival

● As one of the apparently still growing number of ragtime addicts, I was very pleased with William Bolcom and Robert Kimball's November article on the Sissle and Blake team and Eric Salzman's balanced review of Max Morath's latest release. It seems, however, that the ragtime revival has been around
(Continued on page 12)

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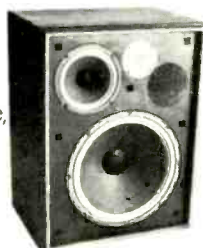
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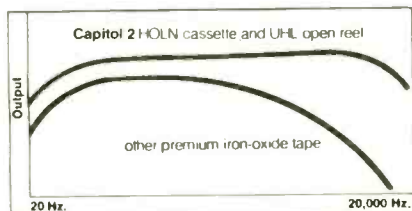
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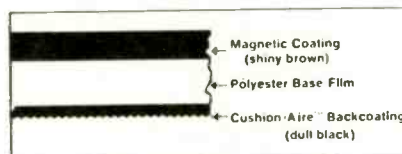
The side of the new tape that faces the heads is a shiny brown, and not as dark as most tapes. The shiny mirror-smooth tape finish improves high-frequency response by improving head-to-tape contact.

The light color is the result of taking the carbon out of the oxide side of the tape. Carbon doesn't help the recording properties of tape in any way. But other manufacturers are forced to use it in order to achieve good static properties. Capitol 2 solves that problem differently.

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Capitol 2 HOLN cassettes are jamproof.

The Cushion-Aire™ backcoating not only improves cassette winding, it

makes cassettes jamproof.

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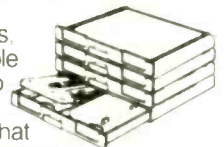
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for so long that its beginnings are fading into history's murky mists. Contrary to Mr. Salzman's beliefs, the resurrection did not start with the efforts of Bolcom and Rifkin, and Morath was not the single beacon during the preceding dark years.

First we had the foundation-stone in the shape of the Rudi Blesh and Harriet Janis monograph *They All Played Ragtime*, which, of course, is still the rag bible, even though subsequent research and analysis has broadened our appreciation of this music. Then there was Morath, who very wisely chose the music itself to spread the gospel, and perhaps exposed more Americans to their old music than did anyone else. But there was also Bob Darch, who did not record or appear on TV, but who gave the impetus to a lot of young

enthusiasts during the late Fifties through personal appearances. This resulted in the formation of fanzines and clubs, like the short-lived *Ragtime Review* of St. Louis, and the still extant Ragtime Society of Toronto. I had the opportunity to meet members of the above-mentioned and a lot of older and younger ragtimers ten years ago, and was struck by the enthusiasm and generosity shown by everyone concerned.

This is not to take any honors from Rifkin and Bolcom; I guess we pretty much owe to them the breaking down of the last frontiers and the spreading of ragtime over the general music scene. It is only a pity that the revival of interest in this music has occurred at a time when almost none of the originators survive and we are deprived of the further documen-

tation of the true sounds and styles they could have provided.

PETER LUNDBERG
Göteborg, Sweden

The Editor replies: "It has long been one of the prime proofs of the world's injustice that Keepers of the Flame almost never get the credit that is due them. But certainly it takes nothing from the fine Blesh/Janis book or from Max Morath's valiant toil in the ragtime vineyards to admit that this music's current popularity or celebrity—one hesitates to say faddishness—dates precisely from None-such's December 1970 release of Joshua Rifkin's 'Scott Joplin Ragtime' (71248—listed, oddly enough, under 'Jazz' in the Schwann Guide)."

Score One for Scriabin

● I was thrilled to see the article in the January issue of STEREO REVIEW entitled "Why Alexander Scriabin?" It is about time that someone finally brought this unjustly neglected composer into the limelight. However, as a long-time fan of Scriabin, I feel obligated to chastise James Goodfriend for concluding this otherwise excellent article with such an unfair critique as that offered by Bernard Jacobson. In his impetuous and headlong attack upon Scriabin, he described the music as mindless, lacking in formal subtlety, and appealing to "lazy listeners." Such statements cause me to wonder if he has considered Scriabin objectively. If there is any quality that predominates in the many sets of preludes, both in the early and late periods, it is subtlety. I suggest that Mr. Jacobson listen to the Waltz, Op. 36 (of which Michael Ponti has an excellent recording). Unsubtle? Hardly.

GARY D. BUSCH
Seattle, Wash.

More Ham

● Reference Larry Klein's reply to a letter from William M. Klykylo (WA8FOZ) in your January issue. I beg to inform Mr. Klein (ex-W2CFJ) that, contrary to his statement, the FCC does officially define amateur radio as a "service." Before making that and other postulations, Mr. Klein should have read the pertinent FCC *Rules and Regulations*.

As a licensed amateur for fifty-four years, I probably express the sentiments of many amateurs. Having seen emergency communications supplied by amateurs, knowing the major contributions made by amateur radio during two major wars, being at present and for some years past involved in the handling of morale messages to and from servicemen all over the world at my own expense and of my own volition, I feel that I have a right to resent Mr. Klein's sly (though not hidden) implications. I would be pleased if he would refrain in the future from commenting on amateur radio in such a smug, misinformative manner.

HARRY C. STENGER, W2AQ
Glendale, N. Y.

Mr. Klein replies: "If W2AQ will check the opening sentence in chapter one of the 39th edition of the authoritative Radio Amateur's Handbook, he will find that 'amateur radio is a scientific hobby . . .' which is the point I tried to make in my reply to Mr. Klykylo. The second sentence goes on to state that 'amateur radio operators . . . perform a service

(Continued on page 16)

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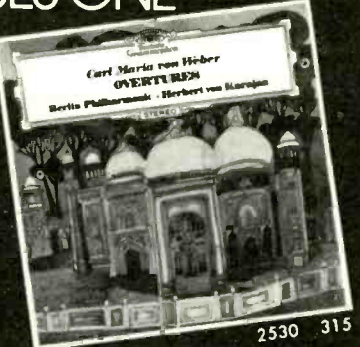
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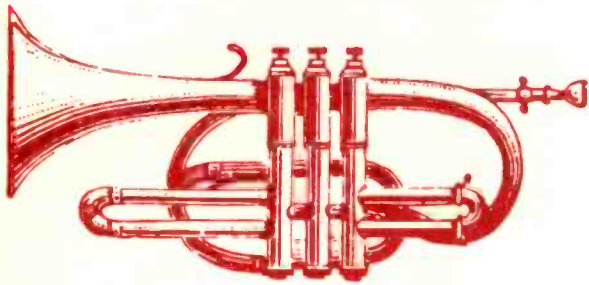
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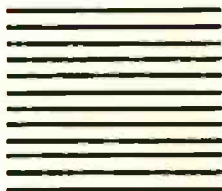
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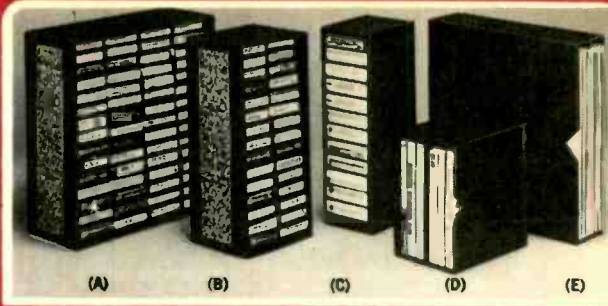
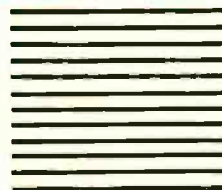
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The technology behind the BOSE 901.

In this article we would like to share with you the technology that produces the sound which has made the 901 the most highly reviewed speaker regardless of size or price.* There are five basic elements of this technology. Each element is important but it requires all five to produce the desired result.

1. An Optimum Combination of Direct and Reflected Sound

The combination of 11% direct radiation from the front of the enclosure with 89% radiation reflected at 30° angles from the rear wall, simulates in your listening room the spatial characteristics of the larger environment of the live performance. This is responsible for the "open" and "natural" sound that is immediately apparent in an A-B listening test of the 901 with any conventional speaker.

2. Multiplicity of Full-Range Drivers

The research that was presented at the Audio Engineering Society meeting in 1968 † revealed that the irregularities of the acoustical radiation inherent in the crossover range of any woofer-tweeter speaker could be overcome by the use of a multiplicity of full-range drivers. The 901 uses nine full-range drivers in each enclosure. The benefit of this approach is appreciated when you try to follow a single instrument through a heavily orchestrated passage.

3. Active Equalization

In the audio frequency range, precise tailoring of electronic circuits to match the characteristics of a speaker can achieve a far more accurate balance of radiated tones than can be achieved by the mechanical components of any speaker acting alone. The active equalizer in the 901 contains over one-hundred components and is precisely tailored to the characteristics of the 901 speaker. This precision tailoring of the equalizer to the 901 is responsible for the accurate musical timbre for which the 901 speaker is famous.

4. Flat Power Response

The concept of flat "frequency" response was sacred in the tradition of speaker design until the arrival of the 901. The research that gave birth to the 901 clearly showed that the reverberant acoustical field dominates the direct field in live performances. Flat frequency response would be appropriate only if the reverse were true. The basic patents covering the 901 are testimony to the importance of the discovery that flat "power" response is the correct criterion for speaker design. Flat power response combined with reflected sound enables the 901 to produce all overtones of musical instruments without the shrillness characteristic of direct radiating speakers.

5. The Technology of Quality Control

The sound of any loudspeaker depends on everything from the texture of the paper cone to the thickness of the glue joints. Unfortunately, the standard techniques for measuring loudspeakers are not adequate to guarantee that speakers with equal measurements will sound alike. The BOSE Research Department has worked on this problem for many years. The result is the SYNCOM™ speaker computer, introduced in 1972. This computer tests and selects every BOSE speaker to standards that mark a significant advance in your listening enjoyment. The SYNCOM computer, and the difference it makes, will be the subject of a future article.

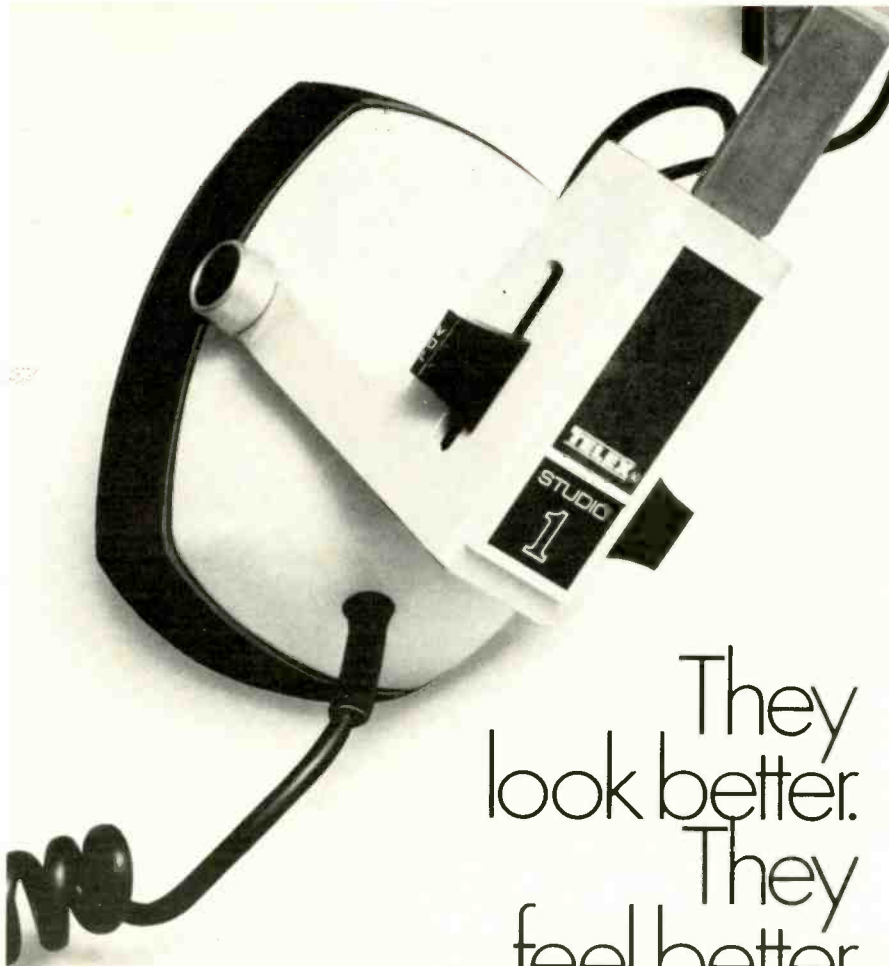


† Copies of the Audio Engineering Society paper, ON THE MEASUREMENT AND EVALUATION OF LOUDSPEAKERS, by Dr. A.G. Bose, are available from Bose Corp. for fifty-cents each.

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defined in international law as . . . self-training, intercommunication and technical investigations . . . which again is a point I tried to make. There is, of course, nothing wrong with hamming as a hobby. But frankly, W2AQ, what percentage of the communication on the ham bands is a public service?"

Reissue Information

● I have a complaint that I am sure many audiophiles share these days. Many companies record a work a number of times, often with the same artists. Similarly, many companies reissue old recordings, often on a low-price label, but sometimes on the original high-price label. With the proliferation of recordings, rerecordings, and reissues, how is a buyer to have any idea whether he is buying a real oldie or the latest release? Herbert von Karajan, for example, has been all over the lot: Angel, London, DGG, and back to Angel again.

It would probably not be to the recording companies' benefit, but I would like them to print information on the date first recorded, date first issued, date rerecorded, and date reissued on each record jacket. Many are improving on record-jacket information by printing playing times, but facts on recording technique would also be interesting.

R. S. FOULKES
Tokyo, Japan

Mr. Foulkes' jacket-information millenium maybe at hand. Now that it is finally possible to protect phonograph records by copyright, notice of that copyright will have to appear somewhere. A straw in the wind: Bach Guild's new Historical Anthology of Music series (see Music Editor James Goodfriend's "Going on Record" column this month) has a copyright date (in Roman numerals!) for the notes as well as the original-issue numbers on the jacket, plus a phono-copyright date on the disc label.

Moussorgsky Songs

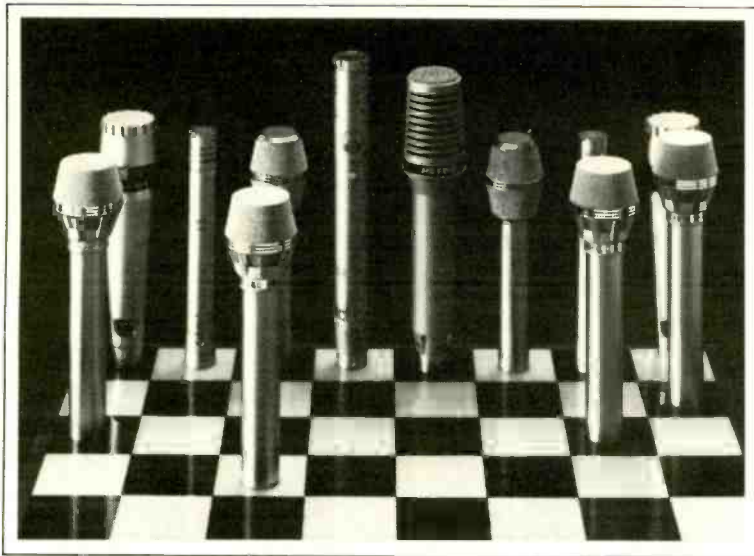
● Thank you very much for the review of Moussorgsky and Rachmaninoff songs in the December issue of STEREO REVIEW. In it, George Jellinek asked a question about the order of the Moussorgsky songs and about my collaboration with Mme. Arkhipova. To the best of my knowledge, the order in which the songs appear on the record is the one usually performed in the USSR and is the order in which they appear in the Russian edition of the complete Moussorgsky songs.

Mme. Arkhipova has made three concert tours in the USA. I have been most fortunate to have played all of her concerts in this country beginning with her first tour in the fall of 1964. Because she wanted to record the Moussorgsky with me, we were able to do it in the summer of 1970 when I was in Moscow as a member of the voice jury of the Fourth International Tchaikovsky Competition. I think this record is the first joint effort between an American and a Russian artist to be made in Moscow. This information did appear in the liner notes of the Russian version of the record, but not the American.

JOHN WUSTMAN
Urbana, Ill.

Schumann's Madness

● I sensed a bit of unnecessary sensationalism in Martin Bookspan's November "Basic Repertoire" column on Schumann's Second (Continued on page 18)



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AKG CANADA - DIVISION OF DOUBLE DIAMOND ELECTRONICS - SCARBOROUGH, ONTARIO

CIRCLE NO. 38 ON READER SERVICE CARD

Symphony. Anyone with a basic knowledge of Schumann's life will discount the statement about "an undiagnosed case of syphilis" being responsible for his madness as ridiculous and irrelevant. First, mental illness had already been a part of his family history. His sister Emelia had committed suicide at the age of twenty, and his father had what was called a "nervous disorder." Schumann was also prone to deep fits of melancholy from a very early age. As a final point, the composer had many children, and it would seem very likely that he would have passed the disease on to his wife Clara. She, however, lived to an old age and did not show signs of the disease.

JOHN ORR
 West Brattleboro, Vt.

Mr. Bookspan replies: "I must take issue with Mr. Orr's calling my reference to the possibility that Schumann suffered from syphilis 'sensationalism.' In the Musical Times for December 1971 the British musicologist Eric Sams presented in impressive medical detail a case for concluding that Schumann's hand injury, which is supposed to have led him to abandon the idea of a career as a concert pianist, was the result of treatment with a mercury compound commonly prescribed for syphilis, and that the psychological symptoms that afflicted him later in life were caused by syphilitic involvement of the central nervous system. Sams' arguments by no means constitute 'proof'—we will never have that. But such a possibility is certainly a legitimate subject for discussion, and mentioning it something more than mere 'sensationalism.' It may explain, for example, the reluctance of Clara Wieck's father to permit her marriage to Schumann. I think Mr. Orr would agree that such things are of some importance to musical historians."

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ROTEL's alternative: 40/40 watts RMS @ 8 ohms, FET front end with 1.7 μ V FM sensitivity. DCO circuitry plus split electric power supply, pre-amp out and main amp inputs. Full tone controls plus Audio and FM muting two tape monitors, inputs for 3 tape recorders and 2 phonos. If this isn't enough then see your dealer for a treat in sight and sound. ROTEL's RX-800 FM/AM stereo receiver is the alternative.



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Concert-Hall Realism

● Recently I attended a Cleveland Orchestra Severance Hall performance of the Verdi Requiem. While listening to the music, I came to the sudden realization that it isn't reflection, reverberation, or any subtle psychoacoustic phenomenon that tips the brain off to the fact that it is in a concert hall rather than a living room. No, it's the fact that during a live performance you can be completely surrounded for many feet in every direction by squirming, coughing, and program-shuffling members of the audience. Any manufacturer of four-channel equipment who can devise a way to add these noises to the back two channels of his products will have taken the last step on the road to True Concert-Hall Realism.

LAWRENCE BRASS
 Cleveland Heights, Ohio

The Sky Has Cleared Up

● Apropos the verbal commotion about placing the classical reviews after the popular (*The Sky Is Not Falling*, November), to me it makes little difference so long as you keep your table of contents in its present conspicuous position. This means that I can find what I want, regardless of its location.

The younger generation is the greatest purchaser of records, and while money may not sing, it certainly talks. So hey, man, I dig. And if I'm more interested in an established has-been than in a current who-the-hell-are-you-and-why—well, one man's music is another man's catastrophe.

JACOB C. SOLOVAY
 Tucson, Ariz.

STEREO REVIEW

Yes, it's expensive...

AKAI's remarkable new GX-370D Stereo Tape Deck is in a class by itself.

Naturally, it costs more. Like in the neighborhood of \$700.00. Which is a high-class neighborhood.

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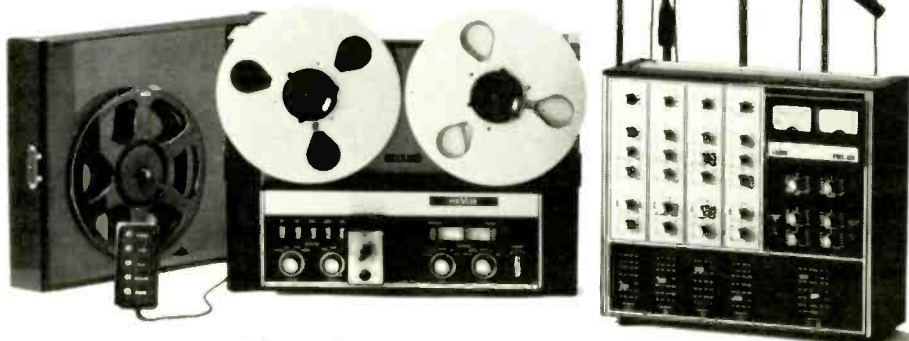
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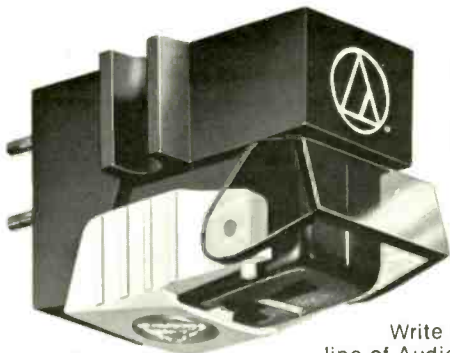


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CIRCLE NO. 6 ON READER SERVICE CARD

BOOKS RECEIVED

Compiled by
Louise Gooch Boundas

● *The Fred Astaire & Ginger Rogers Book*, by Arlene Croce. Outerbridge & Lazard, Inc., 200 West 72 St., New York, N.Y. 10023, 1972. \$9.95. 191 pp.

"They're alone in a ballroom. It is night with an ocean park in the background. Abruptly she turns and crosses the set; he blocks her. She turns away, he catches her wrist, their eyes meet and he dances ingratiatingly. Again she turns, again he catches her and she walks into the dance. When she stands away, he pulls her by the hand and she coils against him, wrapping herself in her own arm, and the free hand holds that wrist. In this position, together as if cradled, they just drift . . ." (description of "Night and Day," from RKO's 1934 movie, *The Gay Divorcee*).

To at least one generation, this couple needs no further introduction: they *have* to be Fred Astaire and Ginger Rogers. And Arlene Croce (who, by the way, has written for *STEREO REVIEW*, among other publications) is obviously one of the memorable team's admirers—a fortunate circumstance indeed. For not only is Ms. Croce a master of felicitous description, but she is perceptive and witty. More, her book contains over one hundred photographs and two "flip sequences" of Astaire-Rogers dances. We may never, ever, feel just that way about dancing again.

● *The Left Bank Revisited: Selections from the Paris Tribune 1917-1934*, edited by Hugh Ford, with a foreword by Matthew Josephson. Pennsylvania State University Press, University Park, Pa., 1972. \$12.50. 334 pp.

"Between the two wars, Paris was the music capital of the world," writes Irving Schwerké. The former music and drama critic for the *Paris Tribune* goes on to substantiate his statement, but he doesn't really have to, for by the time the reader gets to Schwerké's essay at the end of this book, he doesn't need convincing. *Everyone* was in Paris then—all the "expatriate" writers, painters, musicians—and here, in excerpts from their newspaper, they are again. It is all a delightfully good "read."

● *Encyclopedia of Automatic Musical Instruments*, Q. David Bowers. Vestal Press, Vestal, New York, 1972. \$25.00. 1008 pp.

This book is enormous in every respect. In more or less catalog format are illustrated and discussed all sorts of musical machines—music boxes, player pianos, orchestrions, photoplayers, calliopes, etc.—some beautiful and all intricate, interesting mementos of the days before television. Can be ordered by check or money order from: The Vestal Press, P. O. Box 97, Vestal, N. Y. 13850.

● *Greatness in Music*, Alfred Einstein. Da Capo Press, New York, 1972. \$8.95. 288 pp.

A reprint of the 1941 publication by Oxford University Press, this work examines the concept of artistic greatness—standards of measurement, temporal and cultural determinations of "taste," with references to a variety of Western composers and how they measure up to Einstein's ideal.

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NEW PRODUCTS

THE LATEST IN
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Pioneer PL-61 Manual Turntable



● PIONEER's new PL-61 manual turntable employs Hall-effect semiconduc-

tors in a brushless d. c. motor that operates at low speed to minimize noise-producing vibration. Final drive to the platter is through a polyurethane belt. Speeds of 33 $\frac{1}{3}$ and 45 rpm are switched electronically, and can be fine-tuned over a ± 2 per cent range. Stroboscope markings on the edge of the 3 $\frac{7}{8}$ -pound aluminum platter aid speed adjustment. All other controls, including the hydraulically damped cueing mechanism, are pushbutton-operated. The tone arm, an S-shaped tubular design, has a magnetic anti-skating system and counterweights to balance the arm completely in both its

vertical and horizontal planes. Stylus force, calibrated from $\frac{1}{2}$ to 8 grams, is also applied by means of a counterweight. A special lever switch on the motorboard locks the arm to its rest when it is not in use. Specifications for the PL-61 include wow and flutter of less than 0.05 per cent, and a signal-to-noise ratio exceeding 55 dB. The turntable comes complete with a hinged transparent dust cover and an oiled walnut base, which has height-adjustable feet and a small built-in spirit level. Dimensions: 19 $\frac{3}{4}$ x 17 x 8 inches. Price: \$299.95

Circle 115 on reader service card

KLH Model Fifty-Five Receiver



● KLH has a new receiver, the AM/stereo FM Model Fifty-Five, with 13 watts per channel continuous power output into 8 ohms (16 watts per channel into 4 ohms) when both channels are driven. Harmonic and intermodulation distortion are both 1 per cent at rated out-

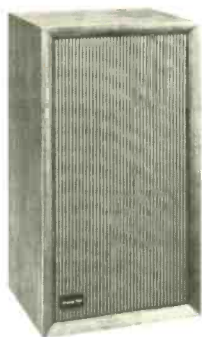
put, and 0.5 per cent or less at lower power levels. Hum and noise (unweighted) are -55 and -67 dB for the magnetic phono and high-level inputs, respectively. Frequency response is 15 to 22,500 Hz, and the damping factor for 8-ohm loads exceeds 20. The FM section has an IHF sensitivity of 2 microvolts, a capture ratio of 2.5 dB, 46-dB alternate-channel selectivity, 40-dB AM suppression, and 70-dB rejection of i.f. and spurious-response signals. Stereo separation is 30 dB at mid frequencies and 20 dB at 10,000 Hz. Frequency response is 30 to 15,000 Hz ± 2 dB. For full-modulation stereo reception, harmonic distortion is 1 per cent.

In addition to its built-in AM and FM

tuners, the Model Fifty-Five has inputs for magnetic phono, a tape recorder/player, and one high-level source. The volume, balance, bass, and treble are knob-operated, while pushbuttons control loudness compensation, high- and low-cut filters (6-dB-per-octave slopes above 4,200 and below 60 Hz), mono/stereo mode, tape monitoring, and main and remote speakers. The front-panel jack will drive stereo headphones of any impedance. The channel-center tuning meter reads signal strength for AM. The overall dimensions of the receiver with AM antenna extended are approximately 16 $\frac{1}{2}$ x 5 $\frac{1}{4}$ x 19 $\frac{1}{2}$ inches. The price of \$199.95 includes a walnut-finish cabinet.

Circle 116 on reader service card

Onkyo Model 15 Speaker System

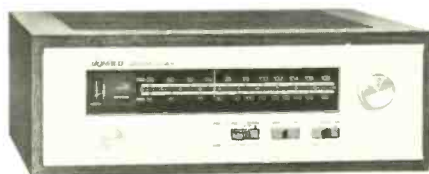


● ONKYO's latest speaker system, the Model 15, is a three-way design consisting of a 10-inch woofer operating in a sealed enclosure, a 1 $\frac{3}{8}$ -inch dome mid-range driver, and a 1-inch dome tweeter. The frequency response of the system is specified as 30 to 20,000 Hz, and the rated power-handling capability is 40 watts. The minimum recommended amplifier power is 10 watts per channel continuous into the system's nominal 8-ohm impedance. Crossovers between the three drivers occur at frequencies of 1,000 and 7,000 Hz, and at the rear of the enclosure are two five-position

switches that alter the output levels of the mid-range and tweeter units 2 dB for each step. Behind the removable grille-cloth the tweeter unit is protected from physical damage by a perforated screen, and the mid-range radiates into a phasing plug that performs the same function. Affixed to the center of the woofer cone is a ported dust cap that is said to reduce nonlinearity on long excursions. The Onkyo Model 15's cabinet is constructed of $\frac{3}{4}$ -inch particle board with a walnut finish. Dimensions: about 22 $\frac{1}{2}$ x 12 $\frac{3}{4}$ x 11 $\frac{1}{2}$ inches. Price: \$149.95.

Circle 117 on reader service card

Dynaco AF-6 AM/Stereo FM Tuner



● Dynaco's AF-6 AM/stereo FM tuner, available as a kit or factory wired, combines the performance of the company's FM-5 stereo FM tuner with a newly designed AM section that has variable audio bandwidth. The variable-bandwidth feature enables the user to achieve the best compromise between interference and audio high-frequency response that the broadcast quality and reception conditions permit. The bandwidth control is

a three-position rocker switch (narrow, medium, wide); for FM reception the same switch selects mono or stereo mode, or introduces high-frequency blending to reduce noise during stereo reception. The tuner's signal-strength meter functions for both FM and AM, and the volume control also turns the unit on and off. A notch filter in the AM section provides a sharp cutoff at 10,000

(Continued on page 26)

A love letter.



As you probably know, Revox has always received the highest praise from the experts. And by now, we almost take it for granted.

But even we were bowled over by the unabashed declaration of love we received from audio editor Michael Marcus writing in *Rolling Stone*. In fact, we were so pleased that we'd like to share our pleasure with you. Herewith, Mr. Marcus' comments in their entirety.

The Top "Semi-Pro" Tape Deck

If you get turned on by big bridges, German cars, Swiss watches, Leica cameras, and computers; if you had three Erector sets at the *same* time as a kid; if you shadowed the TV repairman and the plumber when they worked in your house; if you just know they're going to bury you with a screwdriver tucked into your shroud, a Revox tape deck would make you very, very happy.

And if you are a music maker or music listener besides, a Revox would make you *** ecstatic!

The Revox A77 Dolbyized deck sells for \$969, and can make recordings with sound equal to million-dollar studios. It is compact enough to strap on the back of a motorcycle, and rugged enough to survive a crash. It either contains or may be combined with every imaginable feature and accessory, and is as fool-proof and easy to operate as any recorder I know of.

My tests, and reports in the hi-fi mags, back up Revox's claim that this is truly the top performing "semi-pro" tape deck available. Technical performance characteristics have seldom, if ever, been bettered by any other home machine: wide, flat frequency response; extremely low distortion; perfect speed; imperceptible wow and flutter; and noise level, even without the Dolby circuits, that matches the best studio equipment.

With the Dolby noise reduction circuits operating, the A77 is so quiet it's scary. This machine really provides sound reproduction! No person for

whom I demonstrated the recorder could distinguish between live and recorded sound in A-B tests. For decades hi-fi ads have been bullshitting about "concert hall realism." The Revox really achieves it.

From across the room you could mistake it for an old \$199 Radio Shack clunker: It has none of the carefully cultivated "professional" look found on current popular Japanese tape machines. But it has everything: ten-inch professional size reel capacity for hours of taping without flipping over the reels; Dolby circuits so you can use low tape speeds without sacrificing quality, saving tape expense and further reel-flipping; three-motor transport with electronic speed control; push-button solenoid operation with provision for remote control; spring clips built into the reel spindles to hold the tape on in any position without bothering with rubber clamps; different tape tension for each speed and reel size; safety record buttons with red signal lights for each channel; and automatic shutoff.

And individual input selection for each channel; internal track transfer; front and rear panel jacks for either high or low impedance mikes; stereo, single-channel, or merged mono output modes; output volume and balance controls; and a Dolby calibration tone generator that lets you get the noise reduction circuitry working in two seconds.

And there's a lever that pushes the tape against the heads with the motors off for editing; a high frequency filter to prevent interference from FM sta-

tion multiplex signals, and a headphone jack.

Inside the machine is where the technofreaks will really get off. Rigid girders, heavy metal plates, big Pabst motors, carefully routed wiring, beautiful plug-in circuit boards, fancy connectors, the works. Everything NASA quality; built for quiet, smooth operation and long life. It's obviously a machine that should last as long as you do, and Revox guarantees it to; and from looking it over, it doesn't seem like they're going to spend much money making good on their pledge. A few parts that come in contact with moving tape (heads, pressure roller, and capstan) are only guaranteed for one year; but the heads are the big-radius professional type that should be good for many years of normal use, and roller and capstan sleeve are cheap and easy to replace.

If you can't afford the full \$969, the A77 is available without the Dolby circuits for about \$200 less, and if you only plan to dub from records or radio, or record loud rock music, you may as well save the bread. Other formats and options are also available, including built-in playback amps and speakers, rack mounting, variable speed, half-track operation, 15 ips speed, selsync, and on and on and on.

I have a few bitches about the machine: the braking is slow; the meters are a bit small; and the photo-cell tape shutoff can be annoyingly activated by white leader tape spliced between tape sections; but I manage. I have really gotten to love the Revox A77 Dolby B. I know of nothing better.

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Once again, Revox delivers what all the rest only promise.

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The Heathkit AR-1500 rates



The Heathkit AR-1500 180-watt Stereo Receiver is now available in your choice of kit or factory assembled models.
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"The AR-1500 is the most powerful and sensitive receiver we have ever measured..."

— JULIAN HIRSCH, *Stereo Review*, Nov. '71

"...a stereo receiver easily worth twice the cost (or perhaps even more)..."

— *Audio Magazine*, Dec. '71

Mr. Hirsch goes on to say:

"The FM tuner section of the AR-1500 was outstandingly sensitive. We measured the IHF sensitivity at 1.4 microvolts, and the limiting curve was the steepest we have ever measured...The FM frequency response was literally perfectly flat from 30 to 15,000 Hz...Image rejection was over 100 dB (our measuring limit)..."

"The AM tuner was a pleasant surprise...it sounded very much like the FM tuner, with distinct sibilants and a quiet background, and was easily the best-sounding AM tuner we have had the pleasure of using..."

"...all input levels can be matched and set for the most effective use of the loudness compensation. This valuable feature is rarely found on high-fidelity receivers and amplifiers..."

"The phono equalization was perfectly accurate (within our measuring tolerances)...The magnetic phono-input sensitivity was adjustable from 0.62 millivolt to about 4.5 millivolts, with a noise level of -66 dB, which is very low... When properly set up, it would be impossible to overload the phono inputs of the AR-1500 with any magnetic cartridge..."

"...It significantly bettered Heath's conservative specifications. Into 8-ohm loads, with both channels driven, the continuous power at clipping level was 81.5 watts per channel. Into 4 ohms it was 133 watts per channel,

and even with 16-ohm loads the receiver delivered 46.5 watts per channel. Needless to say, the AR-1500 can drive any speaker we know of, and with power to spare..."

"At 1,000 Hz, harmonic distortion was well under 0.05 per cent from 1 to 75 watts per channel...The IM distortion was under 0.05 per cent at level of a couple of watts or less, and gradually increased from 0.09 per cent at 10 watts to 0.16 per cent at 75 watts...The heavy power transformer is evidence that there was no skimping in the power supply of the AR-1500, and its performance at the low-frequency extremes clearly sets it apart from most receivers..."

"Virtually all the circuit boards plug into sockets, which are hinged so that boards can be swung out for testing or servicing without shutting off the receiver. An "extender" cable permits any part of the receiver to be operated in the clear — even the entire power-transistor and heat-sink assembly! The 245-page manual has extensive test charts that show all voltage and resistance measurements in key circuits as they should appear on the receivers built-in test meter..."

"In sound quality and ease of operation, and in overall suitability for its intended use, one could not expect more from any high-fidelity component."

From the pages of Audio Magazine:

"As always, construction instructions are lucid enough for the inexperienced kit-builder and there is enough technical and theoretical information to satisfy even the most knowledgeable audio/RF engineer..."

Kit or assembled, the Heathkit AR-1500 stands alone as a classic among audio components. Check the performance curves on the following page. Check the price again. Then draw your own conclusions.

Kit AR-1500, less cabinet, 53 lbs. **379.95***

ARA-1500-1, walnut cabinet, 8 lbs. **24.95***

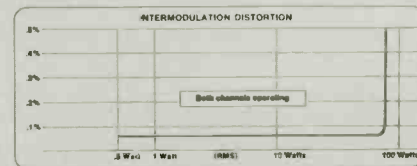
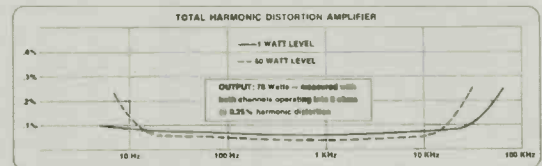
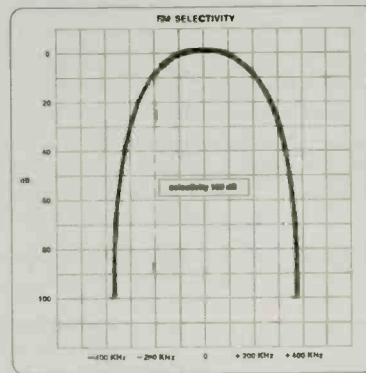
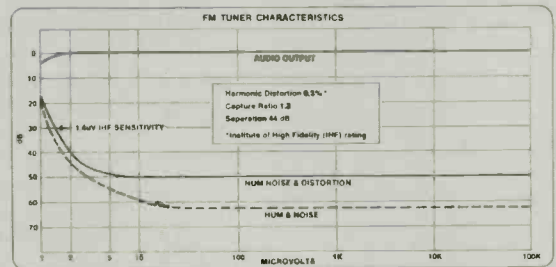
Model ARW-1500, assembled receiver & walnut cabinet, 42 lbs. **649.95***

tops with the experts.

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AR-1500 SPECIFICATIONS — TUNER — FM SECTION (Monophonic): Tuning Range: 88 to 108 MHz. Intermediate Frequency (IF): 10.7 MHz. Frequency Response: ± 1 dB, 20 to 15,000 Hz. Antenna: Balanced input for external 300 ohm antenna. 75 ohm antenna input may be used between either FM antenna terminal and ground. Sensitivity: 1.8 μ V.* Volume Sensitivity: Below measurable level. Selectivity: 90 dB.* Image Rejection: 100 dB.* IF Rejection: 100 dB.* Capture Ratio: 1.5 dB.* AM Suppression: 50 dB.* Harmonic Distortion: 0.5% or less.* Intermodulation Distortion: 0.1% or less.* Hum and Noise: 60 dB.* Spurious Rejection: 100 dB.* **FM SECTION (Stereophonic):** Channel Separation: 40 dB or greater at midfrequencies; 35 dB at 50 kHz; 25 dB at 10 kHz; 20 dB at 15 kHz. Frequency Response: ± 1 dB from 20 to 15,000 Hz. Harmonic Distortion: 0.5% at 1000 Hz with 100% modulation. 19 kHz and 38 kHz Suppression: 55 dB or greater. SCA Suppression: 55 dB. **AM SECTION:** Tuning Range: 535 to 1620 kHz. Intermediate Frequency (IF): 455 kHz. Sensitivity: 50 μ V with external input; 300 μ V per meter with radiated input. Selectivity: 20 dB at 10 kHz; 60 dB at 20 kHz. AM Antenna: Built-in rod type; connections for external antenna and ground on rear chassis apron. Image Rejection: 70 dB at 600 kHz; 50 dB at 1400 kHz. IF Rejection: 70 dB at 1000 kHz. Harmonic Distortion: Less than 2%.* **Hum and Noise:** 40 dB.* **AMPLIFIER — Dynamic Power Output per Channel (Music Power Rating):** 90 watts (8 ohm load)*; 120 watts (4 ohm load); 50 watts (16 ohm load). **Continuous Power Output per Channel:** 60 watts (8 ohm load)*; 100 watts (4 ohm load); 40 watts (16 ohm load). **Power Bandwidth for Constant .25% Total Harmonic Distortion:** Less than 8 Hz to greater than 30 kHz.* **Frequency Response (1 watt level):** -1 dB, 7 Hz to 80 kHz; -3 dB, less than 5 Hz to 120 kHz. Harmonic Distortion: Less than 0.25% from 20 Hz to 20 kHz at 60 watts output; less than 0.1% at 1000 Hz with 1 watt output. **Intermodulation Distortion:** Less than 0.1% with 60 watts output, using 60 and 6,000 Hz mixed 4:1 less than 0.1% at 1 watt output. **Damping Factor:** Greater than 60. **Input Sensitivity:** Phono, 1.8 millivolts; Tape, 140 millivolts; Aux, 140 millivolts; Tape Mon, 140 millivolts. **Input Overload:** Phono, 145 millivolts; Tape, greater than 10 volts; Aux, greater than 10 volts; Tape Mon, greater than 10 volts. **Hum & Noise:** Phono (10 millivolt reference), -63 dB. Tape and Aux (0.25 volt reference), -75 dB. **Volume control in minimum position.** -90 dB referred to rated output. **Channel Separation:** Phono, 55 dB; Tape and Aux, 55 dB or greater. **Output Impedance (each channel):** 4 ohm through 16 ohms. **Tape Output Impedance:** Approximately 50 ohms. **Input Impedance:** Phono, 49 k ohm (RIAA** Equalized); Aux, Tape, and Tape Mon, 100 k ohms. **Tape Output:** Tape or Aux inputs, 1 volt output with 0.2 volt input. **GENERAL — Accessory AC Outlet Sockets:** Two. One switched and one unswitched (240 watts maximum). **Power Requirements:** 120 or 240 volts 50/60 Hz AC. 40 watts idling (zero output) and 356 watts at full output with no load on accessory outlets. **Dimensions:** Overall - 18 1/2" W x 5 1/8" H x 13 7/8" D.

*Rated IHF (Institute of High Fidelity) Standards.
**Rated RIAA (Record Industry Association of America).



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Hz to prevent interference from stations close on the dial. Construction is based on three printed-circuit boards.

AM specifications include a sensitivity of 50 microvolts, image rejection of 60 dB, and 20 dB selectivity at 10,000 Hz,

55 dB at 20,000 Hz. Harmonic distortion is under 2 per cent. The FM specifications are identical to those of the FM-5. The AF-6's dimensions are 13 1/2 x 4 1/4 x 12 inches. The rear panel has a ferrite-rod AM antenna as well as

connections for an external antenna and ground. Prices: kit, \$199.95; assembled, \$299.95. Prices are \$5 higher in the West. A walnut cabinet costs \$17.95 more (\$18.85 in the West).

Circle 118 on reader service card

Ohm Model A Speaker System



● OHM ACOUSTICS has announced the availability of their Model A speaker system, a floor-standing unit employing a single special-design full-range driver mounted apex-up on top of a sealed enclosure about four cubic feet in volume.

The cone of the unconventional Ohm driver does not attempt to behave as a rigid diaphragm. Instead, vibrations of the voice coil are permitted to travel down the cone from apex to edge as annular wave trains, being radiated into the air by what would be the rear surface of an ordinary speaker cone. The taper of the Model A's cone is such that the speed of the waves downward through the cone material is synchronized with the horizontal spread of the sound being propagated in the air. As a result, the acoustic radiation pattern of the Ohm A resembles what would be produced by a pulsing upright cylindrical diaphragm. The speaker can accurately reproduce square-wave signals with a 25 microsecond rise time. The cone's two sections are fabricated of titanium and embossed aluminum bonded to a 3-inch voice coil that has a nominal impedance of 8 ohms and a minimum impedance of 6 ohms.

The driver is 16 inches high and 18 inches in diameter. Usable frequency response is from 20 Hz to well beyond audibility. The manufacturer specifies amplifier powers of 50 or 60 watts per channel continuous as the minimum required to drive the system, with higher power strongly recommended. An input of 200 watts can be tolerated on a continuous basis. Horizontal dispersion is 360 degrees, with response at 20,000 Hz down 3 dB at 50 degrees off axis in the vertical direction. The system is fused, and a capacitor in series with the voice coil prevents subsonic signals from reaching the speaker. The dimensions of the Ohm Model A are 48 inches high x 22 1/2 inches square at the base, tapering to 16 1/4 inches square at the top. Weight: about 130 pounds. The grille cloth is removable. Walnut (\$660) or rosewood (\$730) versions are available.

Circle 119 on reader service card

Kenwood KR-6140A Four-Channel Receiver



● KENWOOD's newest four-channel AM/stereo FM receiver, the Model KR-6140A, has a continuous power-output capability of 30 watts per channel with all four channels driven simultaneously into 8 ohms. Harmonic and intermodulation distortion are both 0.5 per cent or less, and signal-to-noise ratios are 65 dB for the phono inputs and 75 dB for high-level inputs. The power bandwidth is 20

to 30,000 Hz. The tuner section, with an IHF sensitivity of 1.9 microvolts, has a 2.5-dB capture ratio and alternate-channel selectivity of 60 dB or more. Further FM specifications include: AM suppression, 55 dB; spurious-response rejection, 100 dB; image rejection, 65 dB or more. The ultimate signal-to-noise ratio provided by the tuner exceeds 60 dB. Large signal-strength and channel-center tuning meters are adjacent to the tuning dial.

The bass and treble controls of the KR-6140A are duplicated for the rear channels, as are the slider-type left-to-right balance controls and the front-panel stereo headphone jacks. A single knob adjusts front-to-rear balance. Three pushbuttons provide individual switching for the four main speakers and two remote stereo pairs. The tape-monitor circuits, also pushbutton controlled, have the necessary record and playback

jacks for two four-channel machines. In addition, pushbuttons activate loudness compensation, high- and low-cut filters, FM interstation-noise muting, and a remote-control unit that plugs into a front-panel jack and has slider-type volume controls for each of the four channels. Along with its facilities for discrete four channel, the KR-6140A has built-in matrix decoding circuits for SQ plus a "regular" (QS) matrix. These will also function to enhance the reproduction of two-channel programs. A microphone input located on the front panel has its own mixing level control, and its signal can be switched into all four channels or the two front channels alone. The two sets of auxiliary inputs accept four-channel sources. Size of the KR-6140A is approximately 17 1/2 x 7 x 14 3/4 inches. Price: \$599.95. A wood cabinet is extra.

Circle 120 on reader service card

TAB Books 1973 Catalog

● TAB BOOKS, publishers of the Gernsback Library on electronics subjects, have prepared an illustrated twenty-eight-page 1972-1973 catalog describing more than 235 current and forthcoming books, including fourteen titles on audio and high-fidelity topics. Available in paperback and frequently in hard-cover

format, these guides cover tape recording, designing simple audio circuits, installing and servicing complete component systems, and constructing equipment cabinets. Three of the books are on simple electronics projects, and come packaged with a "starter" kit for and audio mixer, a low-power amplifier, or an audio-signal generator. Among the

other offerings in the catalog are texts on radio and TV servicing, amateur radio, model radio control, electric motors, test instruments, and computer technology. The catalog is free; it may be requested through the reader service card or by writing TAB Books, Blue Ridge Summit, Pa. 17214.

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The new Wollensak "8055" 8-track record/play preamp deck with Precision Digital Elapsed-Time Counter.



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8-track deck records from any sound source and plays back through your own stereo system. Its Precision Digital Elapsed-Time Counter tells the exact minutes and seconds that are available on a cartridge and helps you find selections quickly.

The Wollensak "8050A"

deck helped introduce 8-track recording to home stereo systems. With its Logic Control Circuitry, recording and playback are simplified. The 8050A plays back one program or all programs continuously, or with a selector switch automatically ejects the cartridge after one program or after all programs.

The Wollensak "8054"

8-track deck plays back both 4-channel discrete and 2-channel stereo cartridges. So reasonably priced, you can enjoy true 4-channel sound through a quadrasonic system now. Features automatic switching between stereo and quadrophonic modes. Fast forward control on the 8054 and all Wollensak 8-track decks eases search of individual selections.

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is our finest stereo cassette recorder deck with the 3M exclusive beltless "Dual Direct Drive" that is responsible for one of the lowest wow and flutter characteristics available. Its Dolby System™ improves signal-to-noise ratio by 10db at 4,000 Hz or above while greatly increasing dynamic range. *Available in Spring, 1973.*

The new Wollensak "4780"

is a high performance stereo cassette recorder deck with the Dolby System™. It features a Multiple Selector Switch that controls equalization, bias and VU level for standard and high performance tapes. And a Memory Rewind Control, as well as a unique instrumentation control console design for ease of operation.

The new Wollensak "4770"

stereo cassette deck brings you the Dynamic Noise Suppression System (DNS) designed to enhance all pre-recorded cassettes during playback. Its Memory Rewind Control can be set at any desired point, and later the tape will automatically return to that selected point when the control is depressed.



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TECHNICAL TALK

By JULIAN D. HIRSCH

● **MEASURING QUADRAPHONICS:** Following the publication of our recent massive test report on quadrasonics (December 1972), I received a letter from Benjamin B. Bauer, Vice President of CBS Laboratories. Mr. Bauer and his staff are the engineers responsible for the development of Columbia's SQ quadrasonic matrix system. Whatever one's views may be on the SQ system *versus* any other matrix system, or on the relative merits of matrix and discrete systems, it is unarguable that Mr. Bauer is one of the most knowledgeable authorities in this field. I therefore found his comments on the problems of measuring quadrasonic performance of special interest, since I had recently faced them for the first time and had noted certain inconsistencies between the subjective and objective data. Following are some excerpts from Mr. Bauer's letter.

... I would like to relate our experiences with oscilloscopic displays of quadrasonic material. As a first step in our work with matrix quadrasony, we assembled an oscilloscopic display, only to realize after considerable experimentation that such a display, theoretically and practically, could not be relied upon as an analytical tool; in fact, it produced misleading results. This, in my opinion, is why the indications you obtained differed so much from the listening observations.

The reasons for disparity between display and reality are intertwined with psychoacoustics, as well as electronics of the display. In an earlier article, Larry Klein put his finger on this matter by calling upon us to do more psychoacoustical investigations which, indeed, we are doing. A human head is not a point in space; we perceive multiple inputs and store them in our brain in a way about which there is relatively little known but which I call "persistence of hearing" (which is a counterpart of persistence of vision). Also, the electronics of display can and do play tricks upon us, as the following examples demonstrate.

In the display we constructed, any *single-channel* signal or even signals "panned" between adjacent channels produce a radial displacement of the beam toward the proper angular position. So far, so good. With matrixes,

however, the indications of the display did not depict audible reality. Take, for instance, a matrix in which the principal signal also appears at a -3 dB level in adjacent channels. There will be complete electrical—but not audible—cancellation of these side-effect signals because of the way the oscilloscope responds to such signals. Thus, only the "main" channel signal will be displayed, giving the impression of a single well-defined discrete output. And yet, in fact, such a low-separation matrix in a listening test grossly alters the original acoustical image.

Another example: let the signals applied to the front channels be equal in strength, but displaced in phase. The oscilloscope will then display a single sharp "center front" line, while most listeners would hear a displacement toward the direction of the channel that is leading in phase. Thus, I view oscilloscopic displays as devices for entertainment, rather than analytical tools, albeit they can be used for appraisal of the location of the "center of gravity" of the quadrasonic energy.

If not an oscilloscopic display, then what? Frankly, I don't think there is a single simple measurement technique available... and since we need to rate various types of decoders, it would be well to have a general agreement about the methods which best characterize their performance.

A basic step in this direction would appear to be measurement of channel separation. We have cut a test disc (SQT 1000) for the SQ System—but we found that it adds pickup errors to decoder errors. Perhaps the best procedure, for a separate decoder, is to apply signals from an oscillator through a certified encoder so that encoded/decoded signals may be compared visually using an oscilloscope.

But then, we also note that static measurements alone are not sufficient—especially for logic-type systems, which use gain riding and other direction-enhancement techniques.

The SQT 1000 record provides on-off signals between various channels which may be used (with the aid of an oscilloscope and a camera) to study attack and decay characteristics of the logic. We are not sure if the signals we provided are *all* that are needed, but in any event, the SQT 1000 test record is a first step in that direction. I hope the proponents of all systems will provide test records for their decoders also.

Lastly, because the state of the art in quadrasonic psychoacoustics research has not advanced sufficiently to

TESTED THIS MONTH

●
Acoustic Research AR-7 Speaker
Koss HV-1 Stereo Headphones
Onkyo TX-666 AM/FM Receiver
Elac/Miracord 50H Mk II Turntable

design an ultimate test, we believe that careful listening by an expert is indispensable. Here again, guidelines are needed. Possibly a special test record with musical signals will also have to be cut.

Obviously, CBS Laboratories long ago faced the problems we have encountered only since quadraphonic hardware became commercially available. Our recent tests confirm that the stereo-display oscilloscope we used in our evaluation does indeed perform in the manner described by Mr. Bauer.

However, the degree to which an oscilloscope display differs from the listener's subjective response to a quadraphonic program seems at least partially to be a function of the "discreteness" of the total encoding-decoding process. Matrixed recordings, in particular, frequently tend to rely on

psychoacoustic phenomena to enhance their *apparent* separation. An oscilloscope, unfortunately, does not respond psychoacoustically, but electrically—which in many cases produces different—if not always contradictory—information.

Our limited experience with trying to "measure" quadraphonic performance leads us to agree completely with Mr. Bauer's conclusions. We welcome any test records or electronic instrumentation which will bring some objectivity to this fascinating and intricate subject. In the meantime, our judgments of quadraphonic hardware and software will have to be based primarily on what our two ears tell us, assisted by those measurement techniques and aids that do *not* conflict seriously with our subjective response.

EQUIPMENT TEST REPORTS

By Hirsch-Houck Laboratories

Acoustic Research AR-7 Speaker



● Most "bookshelf" speakers are comparable in size and weight to a set of encyclopedias, and they must therefore be supported by correspondingly rugged shelves. In contrast, the new Acoustic Research AR-7 would be quite at home on a shelf of paperbacks. It measures 15¾ inches wide x 9¾ inches high x 6¼ inches deep, and weighs a mere 11 pounds. The walnut enclosure can also be hung directly on a wall, using picture hooks and the hardware furnished with the speakers.

The AR-7 is a two-way system, consisting of a wide-dispersion, 1½-inch tweeter (essentially the same as that used in the AR-6) and a newly designed 8-inch acoustic-suspension woofer. The crossover frequency is 2,000 Hz, and a two-position switch in the rear of the unit provides a choice of two tweeter levels, identified as *FLAT* and *NORM*. The system impedance is 8 ohms, and the moderately low efficiency requires an amplifier capable of at least 15 watts continuous output. The AR-7 comes packed two to a box, and carrying the standard AR five-year guarantee. Price: \$60 each.

● *Laboratory Measurements.* The AR-7's frequency response was measured in a "normal" reverberant environment that integrated the total energy output of the system. With the tweeter-level control set to *FLAT*, the measured curve was among the flattest we have charted—within ± 2 dB from 65 to 15,000 Hz. In the *NORM* position, the response went out as far as the flat curve, but

had about 2-dB less energy in the area above 3,000 Hz.

The output fell below 60 Hz, but the low-frequency harmonic distortion was quite low, reaching 5 per cent at about 50 Hz, using either a 10-watt drive level, or maintaining a constant 90-dB SPL (sound-pressure level) at a distance of three feet from the speaker. At lower frequencies (as could be inferred from the rapid decrease in output), the constant-output condition produced more distortion than the constant-drive test. We would judge the effective lower limit of the AR-7 to be about 40 to 45 Hz—which is a *very* respectable figure for a speaker system of its size.

The impedance ranged between 5 and 10 ohms at most frequencies, reaching its maximum of just over 10 ohms at the bass resonance of 70 Hz. The tone-burst response was on a par with that of the other AR speakers we have tested—about as close to ideal as can be measured in a "live" environment. The efficiency, though low, was slightly higher than that of the top-of-the-line AR speakers such as the AR-3a or AR-LST. A drive level of 3.5 volts at mid-frequencies (about 1.5 watts) was needed to produce a 90-dB SPL.

● *Comment.* The measured characteristics of the AR-7 were so outstanding that we were not surprised at its excellent performance using our simulated "live-vs.-recorded" test technique. The only audible difference between our original program and its reproduction through the AR-7 set to *FLAT* was a very slight dulling of the extreme highs above 10,000 Hz. Even though the AR-7 tweeter has very fine dispersion by contemporary standards, it was not quite the equal of the dome radiators used in the more expensive AR speakers. Our overall rating of the AR-7 in this test would be a "B+". In this respect, it compares with many speakers selling for twice its price or even more—which clearly makes it one of the more outstanding under-\$100 speaker systems, irrespective of size.

AR has designed this speaker, we surmise, to satisfy
(Continued on page 34)



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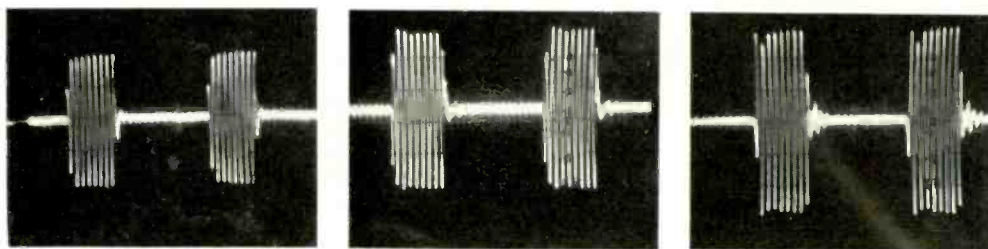


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CIRCLE NO. 61 ON READER SERVICE CARD

The AR-7's tone-burst response, shown here for (left to right) 70, 3,000, and 8,000 Hz, was excellent overall.



the special needs of the quadraphonic listener. It should be possible to install four AR-7's inconspicuously (and inexpensively) in almost any room, and the resulting sound quality should leave little to be desired. The efficiency and other characteristics of the AR-7 are quite compatible with the larger AR systems, thus making it suitable for use in the rear channels when a pair of AR-2ax or AR-3a speakers are used in the front. This compatibility was dramatically demonstrated when we switched

(in stereo) between a pair of \$60 AR-7's and a pair of excellent \$600 AR-LST's (see the LST test report in the October 1972 issue). The audible similarities between the two were much more apparent than were their differences — differences that occurred, naturally, at the very high and very low ends of the audio spectrum. There are not many speakers of *any* size or price that can acquit themselves so well side-by-side with the AR-LST.

For more information, circle 105 on reader service card

Koss HV-1 Stereo Headphones



● **THE Koss HV-1** stereo headphone, unlike the company's other models, is a lightweight, "non-isolating" phone designed to provide low distortion at very high sound-pressure levels for a moderate price. Most headphones depend on a tight seal around the ear for their bass performance, as well as to isolate the wearer from outside sound. Frequently this results in a heavy, tight-fitting headset that may become uncomfortable when worn for long periods. The Koss HV-1, however, weighs only 9½ ounces (less cord) and rests lightly on sponge ear cushions. There is little or no isolation from room sounds and the phones themselves can be heard in a quiet room at some distance from the wearer. Each earpiece contains a 2-inch diaphragm formed of 1½-mil Mylar and driven by a 1-inch-diameter voice coil. The earpieces are vented, and the high-compliance diaphragms resonate at 200 Hz—about an octave lower than typical headphone diaphragms operating in sealed enclosures. The acoustic resistance of the foam ear cushions and the internal mechanical design of the earpieces damp the resonant-output rise and extend the useful frequency range of the phones far below the resonant frequency.

The Koss HV-1 is a relatively efficient phone, rated to produce a 95-dB sound-pressure level (SPL) at the wearer's ear with only 0.6 volt of drive. It is also capable of very high outputs (on the order of 132 dB SPL in the 200-Hz region) without damage or serious distortion. The HV-1 has a coiled cord that extends to 10 feet. It can work with any impedance of 600 ohms or less. Price: \$39.95.

● **Laboratory Measurements.** With minor variations, we followed our standard headphone test procedure as described in the July 1972 issue of *STEREO REVIEW*. As we pointed out at that time, the measured frequency response of a headphone is critically dependent on the volume and shape of the air cavity between the outer surface of the phone and the diaphragm of the microphone. Standard "artificial ears" or couplers have been used for many years to simulate a human ear, but their original application was in the evaluation of communications earpieces, and they therefore left much to be desired for high-fidelity measurement.

The non-standard coupler we have been using provided some useful response information, but did not correlate well with results obtained by different headphone manufacturers. For this test, we used a slightly modified version of the standard coupler designed by Koss. This not only gives more meaningful response curves, but made it possible in the present case to correlate our results with those obtained by Koss.

The response curve of the HV-1 showed the expected broad resonant peak at 200 Hz, falling off at about 6 dB per octave below 100 Hz. At higher frequencies there was a slight mid-range irregularity with a broad area of somewhat reduced output between 1,000 and 2,500 Hz, but the overall frequency response was within ±7 dB from 20 Hz to well beyond the 15,000-Hz upper limit of our calibrated microphone.

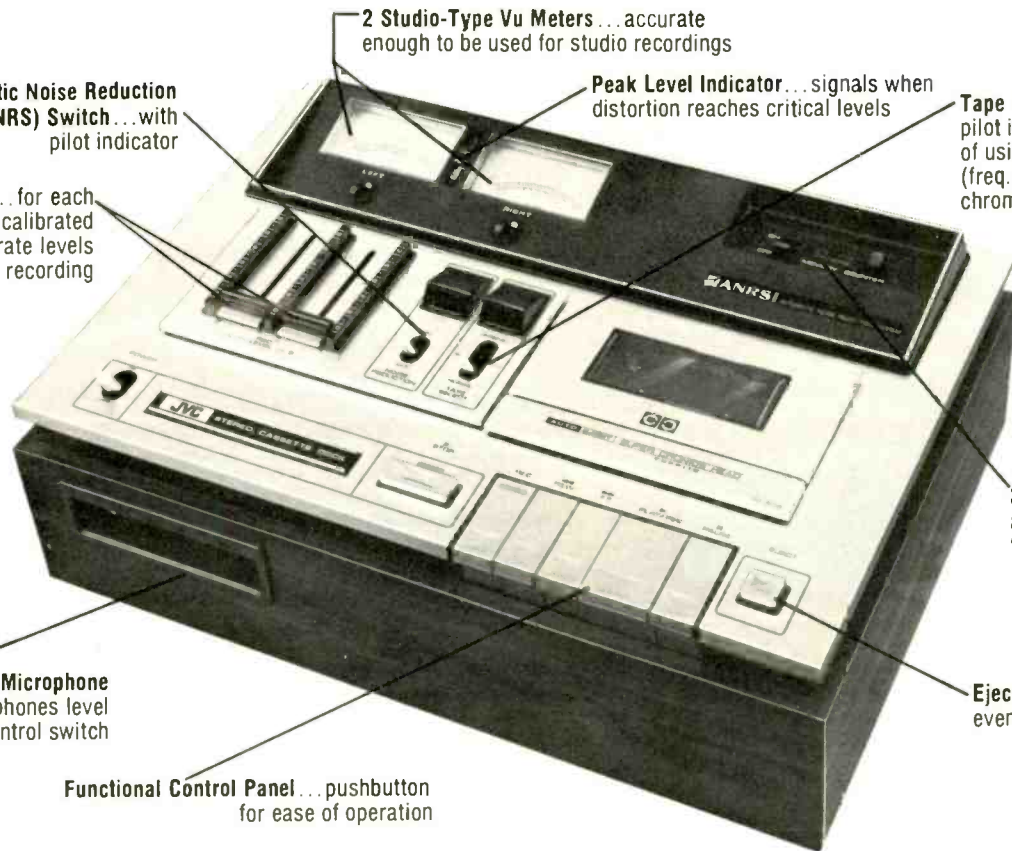
The acoustic output, with 1 volt applied, varied between 95 and 109 dB SPL over the full frequency range. These levels, which would be uncomfortably loud for many listeners, can easily be achieved when driving the HV-1 phones from any amplifier we know of. At 1,000 Hz, the distortion was only 2.6 per cent at a 120-dB SPL. At 200 Hz the distortion was under 2 per cent all the way up to a 132-dB SPL, at which point some buzzing occurred. The electrical impedance was very uniform: between 150 and 200 ohms over the 20- to 20,000-Hz range.

● **Comment.** The sound of the Koss HV-1 phones had an open, airy quality that we found very pleasing. Subjectively, this sort of sound seems more akin to that achieved with good loudspeakers than to the "enclosed"

(Continued on page 36)

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JVC MODEL CD-1668

Eject Button... ejects anytime even when tape is in motion

Headphone and Microphone Jacks... with headphones level control switch

Functional Control Panel... pushbutton for ease of operation

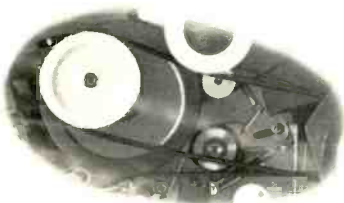
WHAT YOU DON'T SEE...



Automatic Eject System With Photoelectric Cell... a photoelectric cell senses the end of the tape and automatically stops the tape and pops it up. It also eliminates any stretch inherent with tape tension type stop systems. Another JVC unique feature!



Hysteresis Synchronous AC Motor... insures accurate rotation, reducing wow and flutter to 0.13% RMS

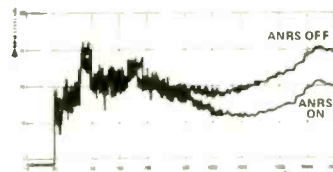


New Dual Drive Mechanism... capstan and reels are driven separately to optimize speed performance, maintain accuracy and reduce wow and flutter



Super Cronios/Ferrite Heads... for extended life (10 times greater than permalloy) and optimum fidelity for recording/playback—another JVC unique feature! Freq. response: 30-19,000 Hz with chrome tape, 30-13,000 Hz with normal tape

*ANRS (Automatic Noise Reduction System)... is the ultimate answer to crisp, clean reproduction from a cassette, improving S/N ratio from 50dB to 60dB at 10K Hz for dramatic noise reduction. ANRS assures perfect playback of Dolbyized cassettes



JVC Hi-Fi

1010C

For A Free Test Report Write: JVC AMERICA, INC., Advertising Dept. S, 50-35 56th Road, Maspeth, New York 11378

character of most conventional phones. The sound was so good that we felt impelled to compare the HV-1 with the excellent Koss ESP-9 electrostatic phones tested in our July 1972 report on thirty-eight headphones. It did not equal the ESP-9 (that would have been unreasonable to expect), but it was not far behind. The HV-1 has a fuller, warmer character, with a little less output in the lowest bass and highest treble frequencies. Overall, its sound was smooth and free of any obvious coloration, and we felt that it offered strong competition to some of the best dynamic headsets we have tested.

In some respects, the HV-1 surpassed the ESP-9. Not only was it much more comfortable to wear, but it was

able to play at much higher volume levels without distortion. This is a weak area for most phones and particularly the non-isolating types, which distort readily when "pushed."

We suspect that anyone, even the most volume-happy rock devotee, will be able to achieve any desired loudness level with these phones—something he cannot do with loudspeakers without a super-power amplifier and the risk of being arrested for disturbing the peace! If you already like non-isolating phones, you will probably like the Koss HV-1's more than most. They are truly an excellent value at their modest price.

For more information, circle 106 on reader service card

Onkyo TX-666 AM/Stereo FM Receiver



● **The name Onkyo**, well known in Japan, has recently been introduced to the American audio market. The company's top-of-the-line stereo receiver, the TX-666, is an attractively styled unit with a dark, brushed satin-gold panel and matching metal knobs. The long dial scale has its FM calibrations linearly distributed, at intervals of 0.5 MHz, with the AM scale below it. The flywheel tuning is exceptionally smooth and free of backlash. Two tuning meters (relative signal-strength and zero-center) are located to the left of the dial scales.

The operating controls, except for the tuning knob, form a single line across the panel below the dial area. The power switch is combined with a speaker selector, which activates either, both, or neither of two pairs of speaker systems. A stereo headphone jack next to the switch is always "live." The bass and treble tone controls are dual concentric types with slip clutches for individual channel adjustment. The volume and balance controls are also concentric (but independent) knobs.

A row of six push-on/push-off buttons controls the high-cut and low-cut filters, loudness compensation, stereo/mono mode, tape monitoring, and FM muting. A front-panel microphone jack (mono) feeds both channels under the control of a separate MIC MIXER gain control that operates independently of the regular receiver volume control. The input selector knob offers a choice of AM, FM, FM AUTO, PHONO, and two high-level AUX inputs. In the rear of the receiver are a pivoting AM ferrite-rod antenna, the speaker outputs, and the antenna inputs, all of which use screw terminals that can be finger tightened. Next to the phono and AUX input jacks are the tape-recorder connectors. The customary tape-output and -input jacks are paralleled with a DIN connector, with a second pair of REC outputs (REC 2) also provided. These are taken off just ahead of the power-amplifier stage, so that the signal at this point is modified by all the receiver controls—volume, tone, filters, etc. The microphone output also appears at this point (it is not present at the REC 1 outputs), giving the tape recordist considerable flexibility in his operations on the signals being recorded. If off-the-tape monitoring is desired, the REC-1 terminals must be used, however.

The Onkyo TX-666 has direct-coupled power ampli-

fiers rated at 50 watts per channel continuous into 8 ohms. In addition to individual fuses in the speaker lines, special circuits protect the amplifier transistors against damage from overloads. Another circuit prevents turn-on transients from reaching the speakers. There is also a thermal circuit breaker to turn the power off if the receiver gets too hot.

The FM tuner features a front end with an FET r.f. amplifier and six ceramic filters in the i.f. amplifier for selectivity. Ceramic filters are also used in the AM tuner. The Onkyo TX-666 is 18³/₈ inches wide x 5¹/₂ inches high x 15¹/₈ inches deep; it weighs 28 pounds. It is supplied in a handsome wooden cabinet at a price of \$429.95.

● **Laboratory Measurements.** The amplifier ratings of the TX-666 proved to be quite conservative. With both channels driven simultaneously at 1,000 Hz, the output at the clipping point was about 52 watts per channel into 8 ohms, 71 watts into 4 ohms (the protective fuses opened up at this point), and 33 watts into 16 ohms. The 1,000-



The TX-666's rear panel has a terminal for an external AM antenna plus the usual ferrite rod. The REC 2 tape-output jacks deliver a signal that can be modified by front-panel controls.

Hz harmonic distortion was less than 0.05 per cent at any power output up to the rated 50 watts per channel, and typically measured under 0.03 per cent. The IM distortion was slightly higher, but still insignificant: about 0.1 per cent up to 30 watts and reaching 0.15 per cent at the rated 50 watts. At reduced power outputs (25 watts and 5 watts), the distortion was typically between 0.02 and 0.03 per cent over the full audio-frequency range, and never exceeded 0.05 per cent. At the full 50-watt output, it was under 0.05 per cent from 40 to 20,000 Hz, rising to 0.1 per cent at 30 Hz and to about 1 per cent between 20 and 25 Hz. Unlike some lesser receivers, the Onkyo is able to sustain its power rating over almost the full audio bandwidth.

The audio amplifiers required 63 millivolts at the AUX inputs for 10 watts output, with a noise level of -76 dB. The phono sensitivity was 1.45 millivolts, and had a very

(Continued on page 38)



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CIRCLE NO. 67 ON READER SERVICE CARD

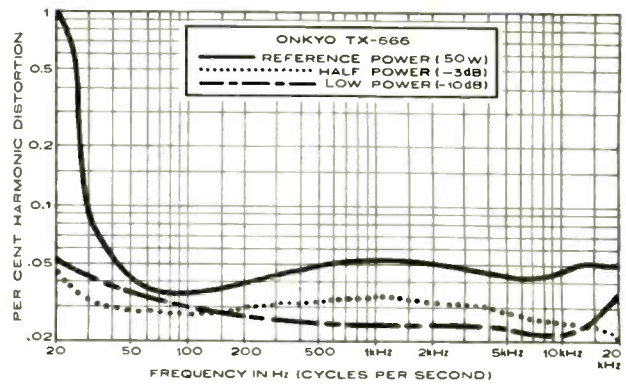
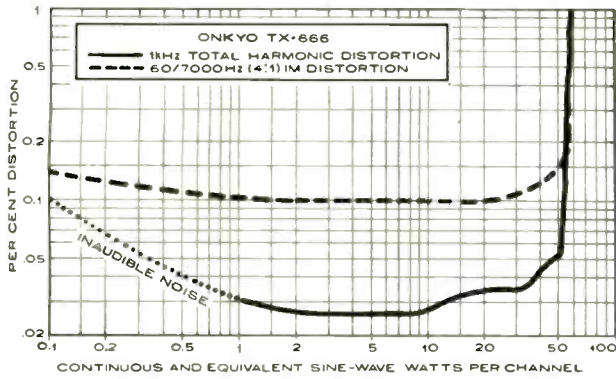
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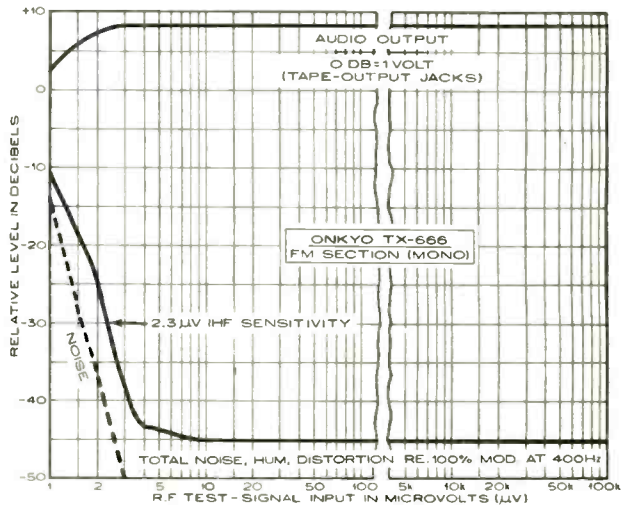


low noise level of -67 dB. The TX-666 had extraordinary phono-overload capability — 180 millivolts — which means that it not only has enough gain for the lowest-output magnetic cartridges, but can be used with *any* cartridge without fear of overload or distortion.

The filter responses were down 3 dB at about 50 and 6,000 Hz, with 6-dB-per-octave slopes. The loudness compensation boosted both low and high frequencies at reduced volume-control settings. The feedback-type tone controls had a moderate but adequate range of about ± 10 dB. The RIAA phono equalization was essentially perfect: within ± 0.25 dB over virtually all its range. The frequency response through the microphone input was within ± 3 dB from 20 to 20,000 Hz. A 6.3-millivolt input was needed for 10 watts output; this calls for a high-output dynamic microphone of medium-to-high impedance.

The FM tuner also proved to be first-rate. Its IHF sensitivity was 2.3 microvolts (rated 1.8 microvolts), but a 50-dB signal-to-noise ratio was reached with only 3 microvolts input. This is a much more meaningful indication of sensitivity, and shows the TX-666 to be about as sensitive as any receiver or tuner on the market. For inputs above 1,000 microvolts, the TX-666 provided a signal-to-noise ratio of 70 dB. The measured distortion was approximately the residual level of our signal generator. The FM frequency response was better than ± 2.5 dB from 30 to 15,000 Hz, and stereo FM separation was exceptionally uniform — between 22.5 and 27.5 dB across the full frequency range. Unlike most FM tuners and receivers, the TX-666 actually had its greatest separation at the highest frequencies.

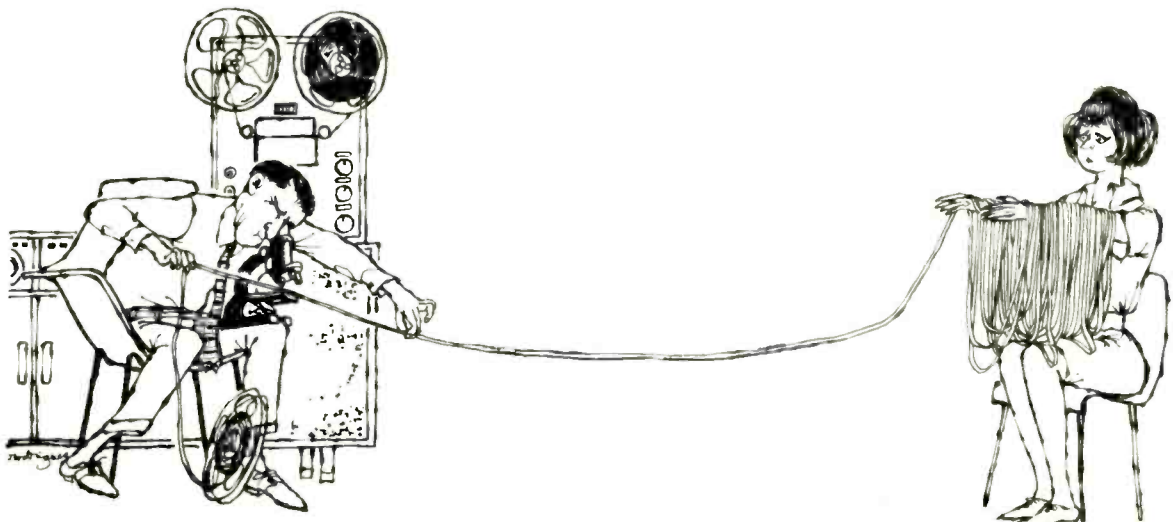
The capture ratio was 1.75 dB at 1,000 microvolts, falling to 4.7 dB at 10 microvolts; AM rejection was an adequate 47 dB. Image rejection was a good 72 dB, and the alternate-channel selectivity was excellent at 81 dB. The fixed muting threshold was 30 microvolts. Reception



The dashed curve labeled "noise" shows how random noise (principally hiss) falls below the audio output with increasing signal strength. Ultimate quieting level achieved was -70 dB.

quality on AM was average, with the frequency response down 6 dB at 2,700 Hz relative to the midfrequencies.

● **Comments.** The Onkyo TX-666 is a perfect illustration of the difficulty of judging a hi-fi component only by its measurements. Obviously, no apologies need be made for the TX-666 in this respect — it has a first-rate FM tuner and a powerful, low-distortion amplifier. However, the same could be said of some other competitively priced receivers we have tested recently. It is in the often-overlooked details of design and operating "feel" that the Onkyo's quality becomes evident. Everything — with no
(Continued on page 40)



What's a 4-channel system without a 4-channel deck?

Not very complete. Because so much of the 4-channel music available is on discrete 4-channel tape. That's also one of the reasons Panasonic picked discrete as the standard for our 4-channel equipment. Including our 4-channel cartridge decks.

We have two. The RS-847US plays 4-channel and 2-channel cartridges, automatically. No switches to turn. No knobs to set. You've also got controls for continuous play. Or automatic eject. A digital program indicator. Plus one program selector button to control all eight tracks. And inside that lovely walnut cabinet,

there's an AC hysteresis synchronous motor. So voltage variations won't cause wow and flutter.

But maybe you're tired of listening to pre-recorded music. You want to make some of your own. Then you need a deck that records as well as plays back. Like our RS-858US. It could be your own sound studio for 4-channel and 2-channel tapes. The 4 output level controls let you blend the sound any way you want. And the 4 separate VU meters let you see what you're doing. There's even a headphone selector switch so you can monitor the sound on the front or the back speakers.

Of course, you also get a lot of extras on the RS-858US. Like a locking fast forward button. And an Automatic Timing counter. To help you find out where you are on the tape. You see how much time has elapsed. In minutes.

Our 4-channel components play discrete, matrix, stereo and monaural. They even enhance the sound of stereo with our Quadruplex™ circuitry. See our other components with our decks at a franchised Panasonic Hi-Fi dealer. Because what's a 4-channel deck without a 4-channel system.

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RS-858US

RS-847US

exceptions—works smoothly and positively, with none of the “floppiness” or uncertainty that sometimes accompanies control operation. The knobs are marked plainly, so that their positions can be seen at a glance (this seemingly obvious requirement is ignored in many otherwise satisfactory products). Detented selector knobs have a protruding black tab that provides a solid, non-slip grip.

One of the pleasant surprises in using the Onkyo TX-666 is its flawless FM interstation-noise muting system. Not only is it free of noise, thumps, and other extraneous effects, but the operating “window” of the circuit is very narrow. This means that a station can be heard only when it is tuned in “on the nose.” As a by-product of this feature, the zero-center tuning meter is practically unnecessary when the muting is used. Simply tune until a station

is heard, and the meter is automatically at its center point.

A bonus is the unusually accurate FM dial calibration. Any station could be easily identified from the dial reading, or the dial could be pre-set to any channel with complete assurance that the desired station would be there—and tuned correctly—at turn-on. This is rarely possible with other FM tuners and receivers we have used, unless they had a frequency synthesizer or a digital readout system. Our experience with the Onkyo TX-666 left us with a completely positive impression. It is a well-designed, well-constructed, high-performance receiver that did not strike a single “sour note” during an extended period of use. It is certainly an auspicious entry for the Onkyo name on the American component scene.

For more information, circle 107 on reader service card

Elac/Miracord 50H Mark II Automatic Turntable



● **THE** newest version of the Miracord 50H automatic turntable, known as the 50H Mk II, retains the outstanding performance and construction of the proven 50H Series with added features that bring its design into line with current trends. A careful comparison of the Mk II version and the original 50H reveals the key differences. The 16 $\frac{2}{3}$ -rpm speed has been dropped, leaving the basic speeds of 33 $\frac{1}{3}$, 45, and 78 rpm. A hysteresis-synchronous motor drives a 6-pound cast non-ferrous platter, as in the previous version, but a vernier speed control now provides a nominal ± 3 per cent adjustment about each basic speed, and the bottom edge of the platter carries stroboscope markings that are illuminated through a small window on the motorboard.

The tone arm is basically unchanged. Most of its length consists of a light but rigid tube of square cross section. A convenient screwdriver adjustment at the tip of the plug-in cartridge slide is provided for minimizing lateral tracking-angle error. A small post on the motor board provides an index point for this adjustment. After installation, a small brush is mounted on the same post, and this serves to remove dust from the stylus each time the arm returns to its rest.

The arm counterweight-adjustment knob has been relocated from the weight to the arm itself, and is more convenient to use. The arm rest and lock have been slightly redesigned. In other respects, we could find no difference between the Mk II version and the earlier 50H. It has the familiar Miracord light-touch pushbuttons for initiating operation and positioning the arm set-down, an anti-skating dial on the motorboard, and a tracking-force dial calibrated in $\frac{1}{4}$ -gram increments from 0 to 6 grams. A cueing lever raises and lowers the arm with a damped action in both directions.

The “automatic” spindle of the Miracord 50H Mk II supports the record stack at its center, and can handle up to ten records of the same size and speed (at least two records must be placed on the spindle initially for automatic operation). The spindle must be removed in order

to remove the played discs from the turntable's ribbed mat. A short spindle is supplied for single-play operation, and by installing it upside down a single record can be repeated indefinitely. The Miracord 50H Mk II sells for \$199.50. Several bases (\$10 to \$16) and dust covers (\$4.95 to \$12.95) are available for the turntable.

● **Laboratory Measurements.** In every important respect, the Miracord 50H Mk II distinguished itself in our tests. The hysteresis-synchronous motor ensured that operating speed was completely independent of a.c. line-voltage variations over a very wide range. The tone-arm tracking error was low—under 0.3 degree per inch of radius over most of the record, and reaching 0.5 degree per inch at radii of 2 inches and 6 inches. The tracking-force dial was very accurate, with an error of less than 0.1 gram at any point from 0 to 4 grams. At a 1-gram setting the force increased only 0.15 gram at the top of a $\frac{5}{8}$ -inch record stack. The change cycle was slow, requiring about 19 seconds.

The playing speed could be varied ± 2.1 and -3.8 per cent about its nominal value at 33 $\frac{1}{3}$ rpm. Flutter was less than 0.04 per cent at all speeds, and wow was also low: 0.045 per cent at 33 $\frac{1}{3}$, 0.1 per cent at 45, and 0.055 per cent at 78 rpm. The rumble was a very low -38 dB (unweighted), or -53 dB with RRLI weighting. For optimum anti-skating compensation with a 0.2 x 0.7-mil elliptical stylus, the dial had to be set about 1 gram higher than the reading of the tracking-force dial.

● **Comment.** For our tests, the Miracord 50H Mk II was fitted with an Empire 1000ZE/X phono cartridge. The tone-arm cueing action was very smooth, and completely free of drift during descent. Moderately warped records were handled without excessive tone-arm “bounce” or any tendency of the stylus to leave the groove, and acoustic feedback could not be induced even when the turntable was operated directly in front of a speaker. After each operating cycle a friction brake activated by the shutoff mechanism brings the platter swiftly to a halt.

As you might gather from the brevity of our remarks, we found little to comment on in the performance of the 50H Mk II. The turntable simply did its intended job, precisely and unobtrusively. All in all, the Miracord 50H series continues to rank high among the better automatic turntables, with its already excellent performance enhanced by the addition of adjustable speeds and other operating conveniences.

For more information, circle 108 on reader service card

SONY® 7065

Dedicated to the proposition that an enlightened listener is a happy listener



You've got a really great receiver. With an air of confidence, you switch it on, prepared to demonstrate the soul-stirring quality of the FM Stereo. And get, instead, an embarrassing silence. Because the source switch is on phono.

It won't happen with the Sony 7065, because it keeps you informed. Enlightened, with easy-reading function lights on the dial. AM, FM, Phono, Aux, Tape, Mic. You always know where you are, at a glance. Without squinting or stooping.

But that's just the beginning. The 7065 delivers 60+60W RMS into 8 ohms from 20Hz to 20kHz. That means full rated power at each and every frequency across

the entire audio spectrum. You don't lose the power you paid for when you need it, particularly for those gut-stirring lows. The sound is clean and natural, because direct-coupling eliminates the output coupling capacitors that stand between you and the music.

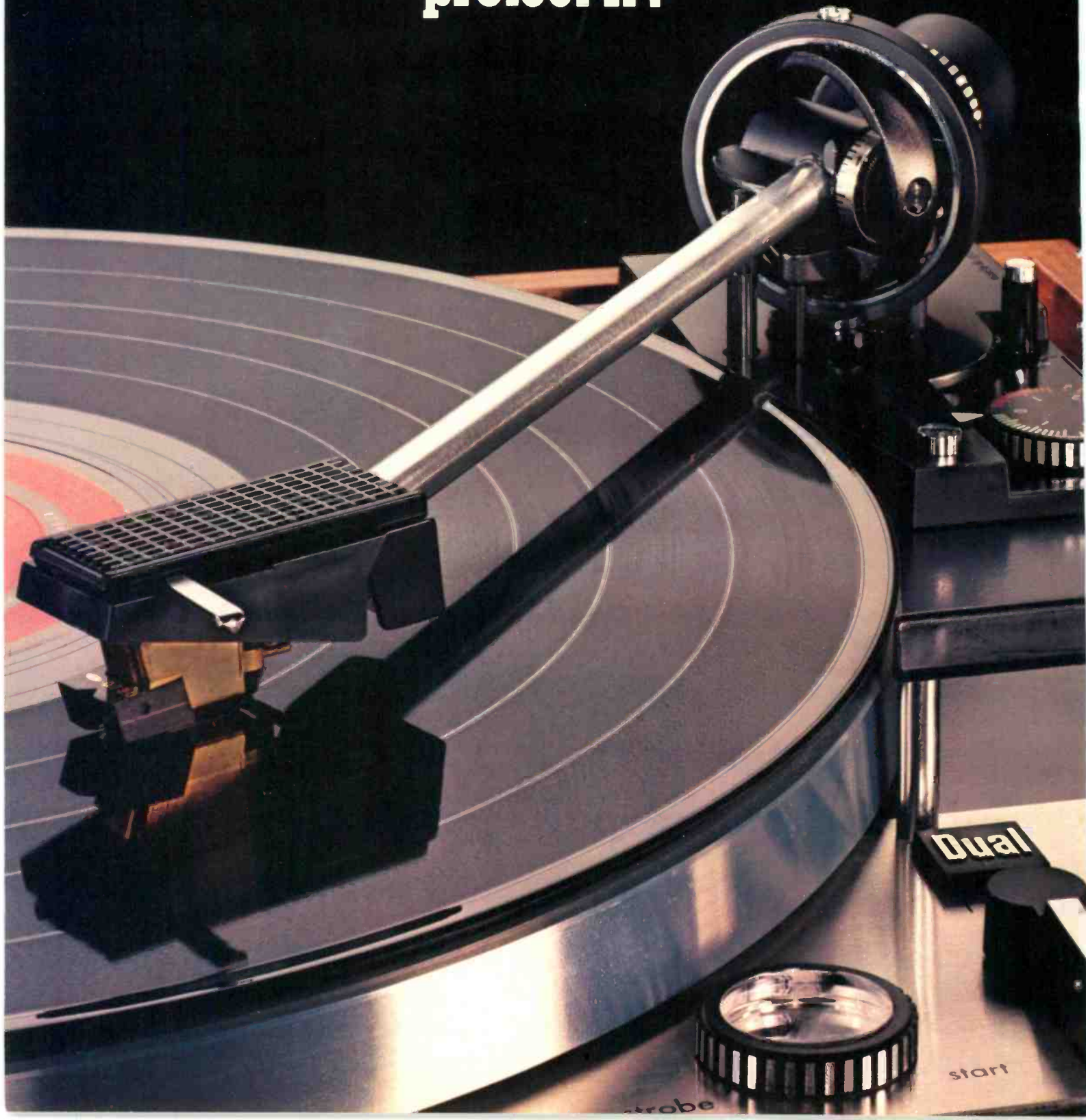
You can pluck stations from even the most crowded dials, or from fringe locations (thanks to the sensitive 2 μ V FET front end and a 1 dB capture ratio). Switch to AM and the center-channel meter winks out, while the signal strength meter stays lit. AM isn't just an afterthought in the 7065. It's quiet and sensitive.

The controls make all that superb performance easy to enjoy. Smooth acting levers switch in positive muting, the two tape monitors (with direct dubbing), and loudness compensation. Or click in your choice of three speaker pairs, high and low filters, or mix one or two microphones with any source. The 7065 is ready for SQ 4-channel and any of the other matrix systems.

The price? An enlightened \$459.50 (suggested retail), including a handsome walnut finish cabinet. The 7065 highlights a line of Sony receivers starting under \$200. Sony Corporation of America, 47-47 Van Dam St., Long Island City, N.Y. 11101.

Buy a Sony, and see the light.

**Your records represent
a major investment.
Does your record player
protect it?**



According to surveys by the major music magazines, the average music lover owns more than 200 records.

If you're typical, a little math will tell you that your record collection has already cost you over a thousand dollars. And will cost even more as you continue to buy records.

With that much money involved, it's certainly worth your while to consider how to protect that investment. Especially since the soft vinyl record is so vulnerable to permanent damage from the unyielding hardness of the diamond-tipped stylus.

What can do the damage.

When the stylus touches down in the groove, a running battle begins. The rapidly changing contours of the groove force the stylus up, down and sideways at great speeds. To reproduce a piccolo, for example, the stylus must vibrate about fifteen thousand times a second.

The battle is a very uneven one. If the stylus can't respond easily and accurately, there's trouble. Especially with the sharp and fragile curves which produce the high frequencies. Instead of going around these peaks, the stylus will simply lop them off. The record looks unchanged, but with those little bits of vinyl go the lovely high notes.

It's all up to the tonearm.

Actually, no damage need occur. Your records can continue to sound new every time you play them. It all depends on the tonearm, which is to the stylus as the surgeon's hand is to the scalpel.

The tonearm has just three jobs to perform. It must apply just the right amount of stylus pressure, keep this pressure equal on both walls of the groove, and follow the stylus without resistance as the groove spirals inward.

Today's finest cartridges are designed to track optimally at very low pressures (one gram or less). So you can appreciate how important it is for the tonearm settings to be accurate and dependable. And for the friction in the bearings to be extremely low.

Yet the difference in cost between a turntable with a precision-balanced tonearm and one with a less refined tonearm can be as little as \$50. (The cost of only a dozen records.)

Dual: The choice of serious record collectors.

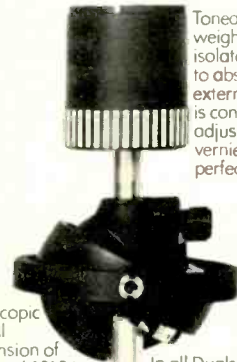
For these reasons and others, Dual turntables have long been the choice of serious music lovers.

And for years, readers of the leading music magazines have bought more Duals than any other make of quality turntable.

We think these are impressive endorsements of Dual quality. But if you would like to know what independent test labs say about Dual, we'll send you complete reprints of their reports. Plus an article on what you should look for in record playing equipment.

Or, if you feel ready to invest in a Dual, just visit your franchised United Audio dealer for a demonstration. The dividends will start immediately.

How Dual protects your records.



Tonearm counterweight is elastically isolated from shaft to absorb any external shock, and is continually adjustable on vernier threads for perfect balance.

Gyroscopic gimbal suspension of 1229 and 1218 is best known scientific means for balancing precision instruments that must remain balanced in all planes of motion.

In all Duals, stylus pressure is applied around the pivot, maintaining perfect dynamic balance of tonearm.

1229 tonearm is 8 3/4" from pivot to stylus, essentially eliminating tracking error while maintaining one-piece stability.

Unlike conventional tonearms, the 1218 and 1229 track records at the original cutting angle. The 1229 parallels single records, moves up to parallel changer stack. The 1218 has a similar adjustment in the cartridge housing.

For perfect tracking balance in each wall of the stereo groove, separate anti-skating calibrations for conical and elliptical styli are provided on all Duals.



Dual 1215 S, \$109.50

Dual 1218, \$155.00

Dual 1229, \$199.50



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Exclusive U.S. Distribution Agency for Dual.

What makes Crown products UNIQUE?

People often ask us what makes Crown products so different. To begin with, Crown is a professional audio equipment manufacturer, although we also serve discriminating audiophiles. Then there are other unique differences which you may not be aware of.

Crown craftsmen work to only one quality level. Models differ in size and features but not quality. Each is designed to be superior in overall performance in its price range. For example, no competitive amplifier, preamplifier or tape recorder can match Crown's distortion levels. Crown products are made only in America, by American craftsmen with 99% American parts.

Every Crown is guaranteed to meet or exceed printed specifications. Ratings given are always for minimum performance levels. For example, the DC300 is rated at 150 watts per channel rms at 8 ohms, although it typically delivers 300 watts per channel rms with 4 ohms.

Each active electronic component is tested before wiring, then each circuit board is tested after wiring, and finally, the complete product is tested from every angle. All in all, a tape recorder undergoes more than 100 hours cumulative testing. Finally, every Crown is accompanied by its individual hand-entered proof-of-performance report.

All this in-plant effort is backed up in the field by broad-service warranties. This is not to make the products "look good" in advertising, but because we feel committed to keeping every product serving its owner satisfactorily. Amplifiers and preamplifiers are covered by a three-year warranty on parts, labor and round-trip shipping. In addition, all warranties cover continuous commercial usage, including broadcast use 18 hours a day, 7 days a week for years. This is extremely rare for hi fi products, but it confirms the fact that Crown products are designed to the professional standards demanded by recording studios, research and design laboratories, professional musicians, etc.

Among the professional features which ensure the least possible deterioration are front panels of 3/16" aluminum plate, corrosion-protected metal parts, wear-proof control markings, silicon transistors, tantalum capacitors, and many other top-grade components selected for maximum life.

Crown does not plan for product obsolescence. The design lifetime of a Crown recorder is ten years or 65,000 hours, with three service overhauls. We have not yet found performance deterioration in any amplifier after six years in the field.

As one of the oldest audio manufacturers selling in the high fidelity market, we at Crown emphasize that our primary goal is not to make sales, but to serve our customers as we would want to be served, with factual advertising, genuine product value and courteous customer service. For us, this is a deeply satisfying way of doing business.


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CIRCLE NO. 13 ON READER SERVICE CARD

AUDIO QUESTIONS and ANSWERS

By LARRY KLEIN *Technical Editor*



IN consideration of the fact that we are once again observing the month of March with a Special Tape Issue, I will depart from the ordinary format of this column and address myself specifically to a few of those recurring topics that seem to be especially problematical to both old and new recording enthusiasts.

New Sound on Old Tape

Q. *I recently came across a tape I had made many years ago using a Pentron machine and—would you believe—black-oxide paper-based tape. I wasn't even sure that the tape would play, but I tried it on my new \$600 recorder. I was startled by the high quality of the reproduction. In fact I'm sure the sound was far better than heard originally from the tape. Do tapes, like wine, improve with age? Was 1959 a vintage year for oxide?*

A. I'm tempted to reply "Yes, but only if it can be proved that the oxide came from certain shafts in the Minnesota Mines." But no, I'm afraid that tape really doesn't get better with age, though playback heads have certainly improved over the years. Recording heads, which do not require the ultra-narrow gaps of playback heads, have improved also—but mostly in the areas of better overload margin. A tape made with yesteryear's recording head would not therefore be that much inferior to one made with one of today's good heads. In other words, the old recording heads could put high frequencies on the tape that the old playback heads (because of their wide gaps) could not pick up. The new narrow-gap heads can recover the highs, and therefore your tape probably does sound better than it did in its youth.

Tape-recording Level

Q. *I have a high-quality stereo tape recorder that I use mostly for recording off the air. Over the years I have found that if I record with VU-me-*

ter readings of +2 or +3 on peaks I obtain a much better signal-to-noise ratio than when I set for zero level on peaks as recommended in the instruction booklet. I have been told, however, that when I go over zero my recorder is distorting. On playback, my tapes sound perfectly fine. Am I recording distortion that I can't hear?

A. I'm sure that you are recording distortion that you can't hear, since every time anyone tapes anything some distortion of the original material takes place. A good pragmatic test of permissible distortion is annoyance value. If your tapes sound fine to you, then there is no point in suffering an audible loss of signal-to-noise ratio in order to minimize inaudible distortion. Perhaps the manufacturer was conservative in establishing his 0-VU reference point and put it at 1 per cent instead of the more or less standard 3 per cent distortion level. Or it may be that the VU meters in your unit are out of calibration. In any case, practice will tell you the VU levels a machine will take before the recording starts to break up. Remember that the higher frequencies tend to distort before the lows, and that cassettes have less "headroom" before audible distortion sets in than open-reel tapes. In addition, some tape formulations will take more signal before overload than others. This too will determine the effective 0-VU reference point.

Tape-head Replacement

Q. *Would it be possible to upgrade the performance of my fairly old tape recorder by changing its heads?*

A. It's possible, but frequently not practical. Since the cost of the heads in a high-quality machine account for a good chunk of its selling price, you may find that a set of superior replacements (assuming that they are available) will cost you just about what your older machine is worth on the second-hand
(Continued on page 46)

Whatever your world of sound, find it in our world of tapes.



You're particular about sound. You want the very best reproduction you can get.

But you know different types of recording require different types of tape.

There's music you have on while you're working, and there's the music you really sit down and listen to. Very closely and critically.

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AUDIO BASICS

By RALPH HODGES



"EAR TESTING" TAPE RECORDERS

TRY to evaluate almost any audio component by listening to it and you're faced with the nagging question, "What does the recording (or radio broadcast) *really* sound like?" But with a tape recorder, you don't care. All you ask of the machine is the ability to record from the source—whatever it is—and play the material back with no audible change. This "facsimile recording" capability is an obvious criterion for an adequate recorder (and most recorders are adequate for most program material). Subtler aspects of recorder performance can also be checked for by ear if systematic comparison procedures are used. Here are a few suggested approaches.

First of all, you'll need, in addition to a playback system, a good record—one with a quiet background, a close-miked cymbal, a strong bass line, and perhaps a prominent piano. As you dub the record onto each of the recorders you're "testing," comparing the source and tape-playback signals by means of the receiver's monitor switch, advance the recording-level controls to the point just below the onset of audible distortion on program peaks. Assuming two recorders are capable of accurately replicating the program source, the one that contributes the least hiss while still providing an undistorted playback signal is the better machine. Incidentally, the readings of the recording-level meters are of no consequence in this test, and should be ignored. A further important point: in any comparative listening test, loudness levels *are* of critical importance. A reasonably high level should be used, and the playback levels of both machines should be carefully adjusted to match the source (and therefore each other) with the playback-level controls before any quality judgments are made.

The above test will be most effective in detecting a markedly inferior machine. This next one may serve to point up really excellent performance: again setting the recording levels as high as possible before distortion intrudes, record the program in mono *on one channel only* of each machine. Then, using the sound-on-sound facilities provided on most three-head machines, transfer the program to the other channel, then back to the original channel, and so on. (You will probably have to adjust recording levels for maximum signal before distortion with each transfer.) Since hiss, wow, and flutter will increase with every transfer, the object is to see which machine can go on the longest before any or all of these degradations intrude.

These tests are not likely to delight anyone with a passion for laboratory accuracy; in fact, their results will probably not even be precisely repeatable. But, to their credit, they *are* within the means of just about anyone to carry out, they reflect actual use conditions, and they emphasize the aspects of performance that will be audible to the person doing the testing—and, ultimately, the buying. If and when you attempt them, however, keep in mind that the tape and its physical condition are everything to recorder performance. Use the manufacturer's recommended tape and don't be overly concerned about anything that a touch of the treble control will clear up.

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CIRCLE NO. 21 ON READER SERVICE CARD



GOING ON RECORD
By JAMES GOODFRIEND

Music Editor

MAKING ORDER

VANGUARD-BACH GUILD, a company that got started in the record business by recording Bach cantatas at a time when nobody knew more than four of them, has been looking into its vaults recently to see what could be done with some excellent recorded material that has suffered the fate of being in the catalog too long to be noticed any longer. It may seem a little strange that such a relatively young company as Vanguard would have vaults to look into, but they have done a lot of recording in twenty years, and the way the record business has developed, the legacy of the past is anything recorded before last Thursday.

At any rate, what they have come up with is hardly an original idea (DGG Archive has been doing it for years), but, considering the nature of the material, it is an exceedingly viable one. When Vanguard began recording works by Bach, Handel, Monteverdi, Purcell, and others, it is doubtful that they thought they were putting together a historical anthology; they were merely recording great pieces of music, most of which hadn't been recorded before. In retrospect, though, a historical anthology of music from the Middle Ages through the Classic period is exactly what they were compiling, and they have now taken the trouble to put it into that form.

Released on the Bach Guild label (Bach Guild used to be Vanguard's medium for music written before 1750, but the dividing lines have grown somewhat hazy over the years), the Historical Anthology of Music comprises, at the moment, thirty-two records, of which fourteen have so far been released. Additional records will be added in the future to make the project open-ended.

The Anthology is systematic, and its categories were set up by Martin Bernstein. Professor Emeritus of Music, Graduate School of Arts and Science, New York University. I should like, as a sidelight to this account, to say a few words about Professor Bernstein. Many

readers will be unfamiliar with his name, despite the fact that he wrote what is probably the best and most widely used introductory textbook on the history of music. There is no article about him in *Grove's* and there is (shame!) no entry for him in the new *Baker's Biographical Dictionary of Musicians*. But Martin Bernstein, who was, earlier in his life, the youngest bass player in the New York Philharmonic and, for a time, the youngest man ever to be a member of the Philharmonic, has had an influence on the American recording industry far greater than most internationally known musicologists. It was his knowledge and enthusiasm that led to the founding of such companies as Vanguard-Bach Guild and Connoisseur Society, and there are many people in the music industry, myself included, who are proud to have been his students.

The classifications he has set up for the Anthology are just ones (and if you think this is an easy job, try it yourself sometime and hand the results over to your local musicologist for criticism; you'll get it). The major areas are the Middle Ages, the Early Renaissance, the Late Renaissance, the Early and Middle Baroque, the Late Baroque, the Pre-Classical, and the Classic periods, and a separate major classification for anthologies which, for the most part, carry a single instrument over a broad range of repertoire. Within these areas are such categories as Gregorian Chant, the Italian Madrigal, Tudor Polyphony, the Mannheim School, Haydn, Beethoven, the Music of Germany, France, Spain, etc. (in different periods), and within these are subcategories of keyboard music, motets, sonatas, odes and anthems, etc. We have, in short, the skeleton of a complete survey from the seventh century through the eighteenth and poking a bit into the nineteenth.

The fourteen discs so far issued are packaged simply but tastefully in standard
(Continued on page 54)

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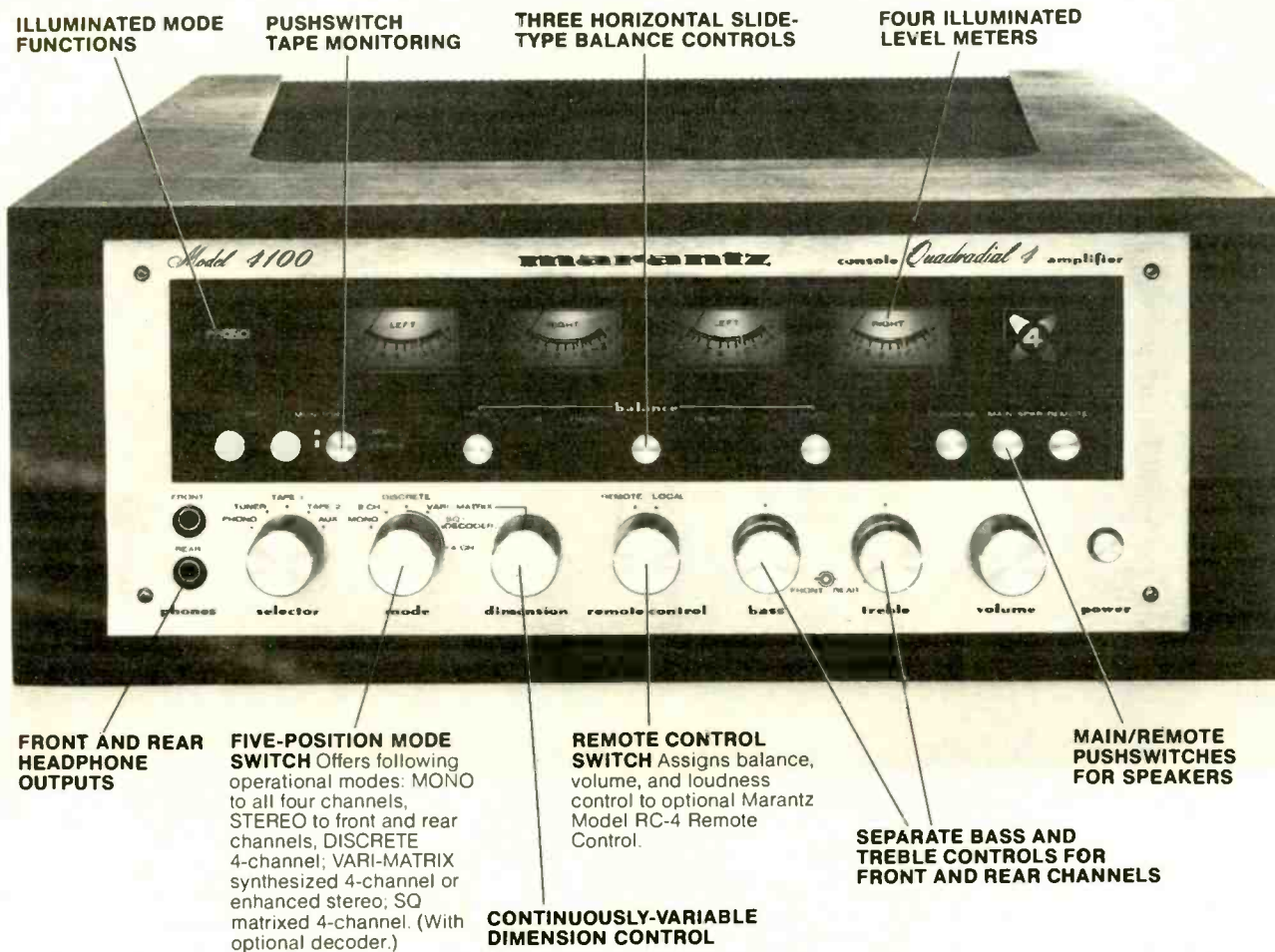
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RCA Records and Tapes



standard jackets with the appropriate classification and all necessary information on the back and the inner sleeve, together with full notes and texts where applicable. The repertoire includes a Josquin des Prez Mass (Category II-C-7, or Early Renaissance, Flemish Masters, Mass); the Thomas Tallis *Lamentations of Jeremiah* plus five hymns (III-D-2); the Masses for Three, Four, and Five Voices by William Byrd, plus seven motets (III-D-7 and 5); Processional and Ceremonial Music by Gabrieli (III-E-2); Monteverdi's *Madrigali Amadorosi* (IV-A-2); Marc-Antoine Charpentier's *Te Deum* and *Magnificat* (V-C-8 and 7); Purcell's *Come Ye Sons of Art* and two anthems (IV-D-4); Vivaldi's concertos for diverse instruments (V-A-12); a suite and two concertos by Telemann (V-B-10 and 12); Bach's *Magnificat* and Cantata BWV 50 (V-F-7 and 6); eight symphonies by William Boyce (VI-B-13); an anthology of trumpet music (Anth. C); and the String Quintets in C Major and G Minor of Mozart (VIII-B-3). All but the Tallis are stereo recordings, but the presence of that disc indicates that Vanguard will not be restricting the series to stereo.

Of the current releases, eleven have been issued before and three are new to the catalog. The latter are the Josquin Mass *L'Homme armé (sexti-toni)*, a magnificent work with an astonishingly complex and beautiful *Agnus Dei*, performed with great skill, fine intonation, and obvious affection by the Josquin Choir under the direction of Jeremy Noble, and the William Byrd Masses for Three, Four, and Five Voices, performed, one solo voice to a part, by the Alfred Deller Consort. The Deller group is well known for its musicianship and these performances show no deviation from their high standard.

Outstanding among the reissued items are the Purcell *Come Ye Sons of Art* (I envy anyone the experience of hearing this work for the first time), the Marc-Antoine Charpentier *Te Deum* (ditto), and the Vivaldi disc, which contains, among other things, the delightful Concerto for Two Mandolins in a spirited performance, well recorded.

The Anthology has been put together to make things easier . . . for libraries and for people who listen only to the basic repertoire. The price is low (\$3.00 per disc), but what is more important is that the format offers reassurance. Boyce and Josquin are no longer mere unfamiliar names in the Schwann catalog; they have a place in a systematic ordering of things. And, like the rejected stranger in a small stranger-hating town who suddenly becomes acceptable after a hotel has registered him and thus woven him into the social fabric, perhaps these new arrivals will be welcomed too, and appreciated for what they really are.



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LONDON LETTER

DON KIRSHNER

A golden-eared impresario, publisher, and "renter" of pop music

By HENRY PLEASANTS



MUSIC publishing, to most people, means printing music and selling it. Don Kirshner, who is one of today's top music publishers, does a double take when you mention sheet music. He publishes it. But to him music publishing means copyright. And copyright means income from public performance. He has another, rather inelegant, term for that income: rent.

He has collected a lot of it. From the Monkees, for example, whose albums of songs he owns sold some eight million copies—and that does not include their singles, whose total sales are estimated at six million, give or take a disc or two. The publisher's take—or rent—is 50 per cent of the royalties for each disc.

And he has a lot more coming in, or in prospect. Three years ago, he bought Alan Jay Lerner's author's rights to *My Fair Lady*, *Gigi*, *Camelot*, *On a Clear Day*, *Brigadoon*, and *Paint Your Wagon*. A year later he joined Sir Lew Grade in London to form ATV-Kirshner Music, a deal that secured him the North American publishing rights to something like two hundred Lennon-McCartney Beatles hits.

But those are just the *big* names. There are many more. By his own estimate, Bronx-born Kirshner, who is only thirty-seven, and who is unable to read or write music, or sing, or play an instrument, has been personally responsible

for more than five hundred song hits in the past ten years, selling more than 200 million records. But it's not the records that interest him, or certainly not the records alone.

"To fully understand music publishing," he said during a recent visit to his London offices in Bruton Street, "one must think of a song as a piece of real estate. People think of the music business as the record business. But records are only a part of it. The real money is in copyright. If you own a song it's like owning an apartment house. The song's copyright life—lease, if you like—is fifty-six years, renewable for an additional fifty-six years. You get paid every time a song is recorded or performed on the air or performed live. It's rent."

TO those who like to think of music, even popular music, as Art, all this sounds pretty cold. But Don Kirshner doesn't think of it that way. He speaks of himself as a *creative publisher*, and that means, to continue the real estate metaphor, the recognition of good property when you see it, and its imaginative development, care, and maintenance.

It takes money, not genius, to buy in on the Beatles or Alan Jay Lerner, and that's not what Kirshner means when he talks about creative publishing. He's talking about the Monkees, the Archies, Carole King, Neil Sedaka, and others, in

whose careers—and prosperity—he has played a creative role.

The Archies' *Sugar, Sugar* sold eight million copies in 1969, and won Kirshner a Carl-Alan Award from the hand of Princess Margaret. It was this gift of spotting songs and talent that earned him a *Time* Magazine label as "the man with the golden ear." The secret, he says, is putting tune and talent together.

"Whether listening to song or singer, I have two factors uppermost in my mind: identifiable sound and a promise of longevity. Remember, copyrights run for fifty-six years, and that's no help if either song or singer is a ten-day or ten-week wonder.

"A good song is a simple song. It must tell a story in a lucid way, and it must be a story for all time. Or it must create an attractive image or mood. It must have a distinctive sound. And a good singer, a lasting singer, is one whose voice you recognize immediately as belonging to that singer and to no other.

"A third and equally important factor is the matching of singer and song. When I listen to a song I think in terms of singers who might make the most of it. When I listen to singers I think in terms of songs that they could do something for, or that could do something for them. That's why I like to take singers and songwriters, or songwriting teams, under my own wing.

"In the old days, if you owned a song, you peddled it to big stars for the plug. If the stars didn't want it, that was that. Which is why I, as a publisher, have branched out into records, motion pictures, and TV. They are outlets for our songs. We don't have to go around begging for the plug. We've got it. At the bottom of the pyramid is copyright. Rent."

While that rent is coming in, of course, Kirshner has found time to develop some other lucrative projects—the most recent being a series of televised rock concerts broadcast in the time slot formerly occupied by Dick Cavett. Among his other accomplishments, the man seems destined to become the Bill Graham of the tube. But those who have had more than enough of unidentifiable melodies with unintelligible lyrics blaring from 800-watt amps at 120 decibels will be relieved to know that, in Kirshner's view, the simple melody with the simple story or picture is coming back.

"Actually," he says, "it's been there all the time. Just think of the Beatles: *Yesterday*, *Michelle*, *She's Leaving Home*, *A Day in the Life!* You simply can't beat a good tune and a good lyric. Ask the shades of Mozart, Beethoven, Schubert, Brahms, and Schumann. They knew. And with the right singer and the right instrumental setting. . . ."

That song will never end, he seemed to be saying, whose melody lingers on. And brings in the rent.

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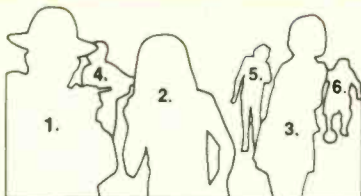


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2. Sorry. He's Harvey Dibble. His restaurant specializes in dried prunes. Gimmick: smokes wheat germ cigarettes.
3. Eunice Trace, Starlet. Gimmick: restoring wholesomeness to movies. (Last film

review: "At last, a movie the entire family can walk out on.")

4. Smokey Stanhope, accountant. Gimmick: a guitar. Unfortunately makes the mistake of playing it.
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Mozart's Violin Concerto No. 4 in D Major

YOU have no idea yourself how well you play the violin; if you only do yourself justice and play with fire, heartiness and spirit, you may become the first violinist in Europe," wrote Leopold Mozart in 1777 to his son Wolfgang, who was then twenty-one. The letter was occasioned by a performance at the Salzburg court of Wolfgang's Fourth Violin Concerto, in D Major (K. 218), by Brunetti, the younger Mozart's principal rival as a violin virtuoso. Few people are aware that Mozart's remarkable talents as a pianist were apparently equaled by his prowess as a violinist—though he played the violin less consistently. His father's letters to him are full of wistful references to the instrument. "I feel a little melancholy whenever I go home," wrote Leopold in 1777, "for as I get near the house, I always imagine that I shall hear your violin going."

Mozart wrote five violin concertos between April and December of 1775. Composed for the court of Mozart's employer, the Archbishop of Salzburg, they were undoubtedly intended for performance by Mozart himself. Three other violin concertos are attributed to Mozart, but their authenticity is highly questionable. One, the so-called "Adelaide" Concerto "discovered" in the Thirties, is alleged to be a product of the ten-year-old Mozart; though it has not been authenticated, it was assigned the number 249a in the 1937 appendix of the Koechel catalog. The other two have been around for some time—an E-flat Concerto (K. 268) and another in D (K. 271a)—but if they were indeed written by Mozart, they compare poorly with the five authentic ones.

Mozart and his father referred to the D Major Concerto, the fourth of the 1775 set of five, as the "Strassburg" Concerto. In Strassburg, at the time, it was customary for dancing couples to interrupt their waltzing with graceful swaying movements of their arms and bodies; in the last movement of the concerto, similarly, the rollicking rondo theme alternates with gentler *andante grazioso* music.

The solo violin has unusual opportunities for display in the D Major Concerto. The opening is a fanfare-like figure in the orchestra, followed by the entrance of the solo instrument in a similar vein. Throughout the movement there is much rapid pas-

sage work for the soloist. The slow movement is a long-breathed and lyrical *andante cantabile*, and the finale is notable for the already-mentioned alternation of virtuoso fireworks with gentler material.

REISSUES have recently restored to currency two notable recordings of the Fourth Concerto from the Thirties and Forties; in both, the soloists played to the accompaniment of orchestras conducted by Sir Thomas Beecham. Joseph Szigeti's (included in Columbia M6X 31513) is a more headstrong performance than that of Jascha Heifetz (Seraphim 60162), but both are treasurable mementos of the art of the respective soloists. In a newer performance in respectable stereophonic sound (RCA LSC 3265), Heifetz is similarly aristocratic, though Sir Malcolm Sargent's orchestral accompaniment is less incisive than Beecham's.

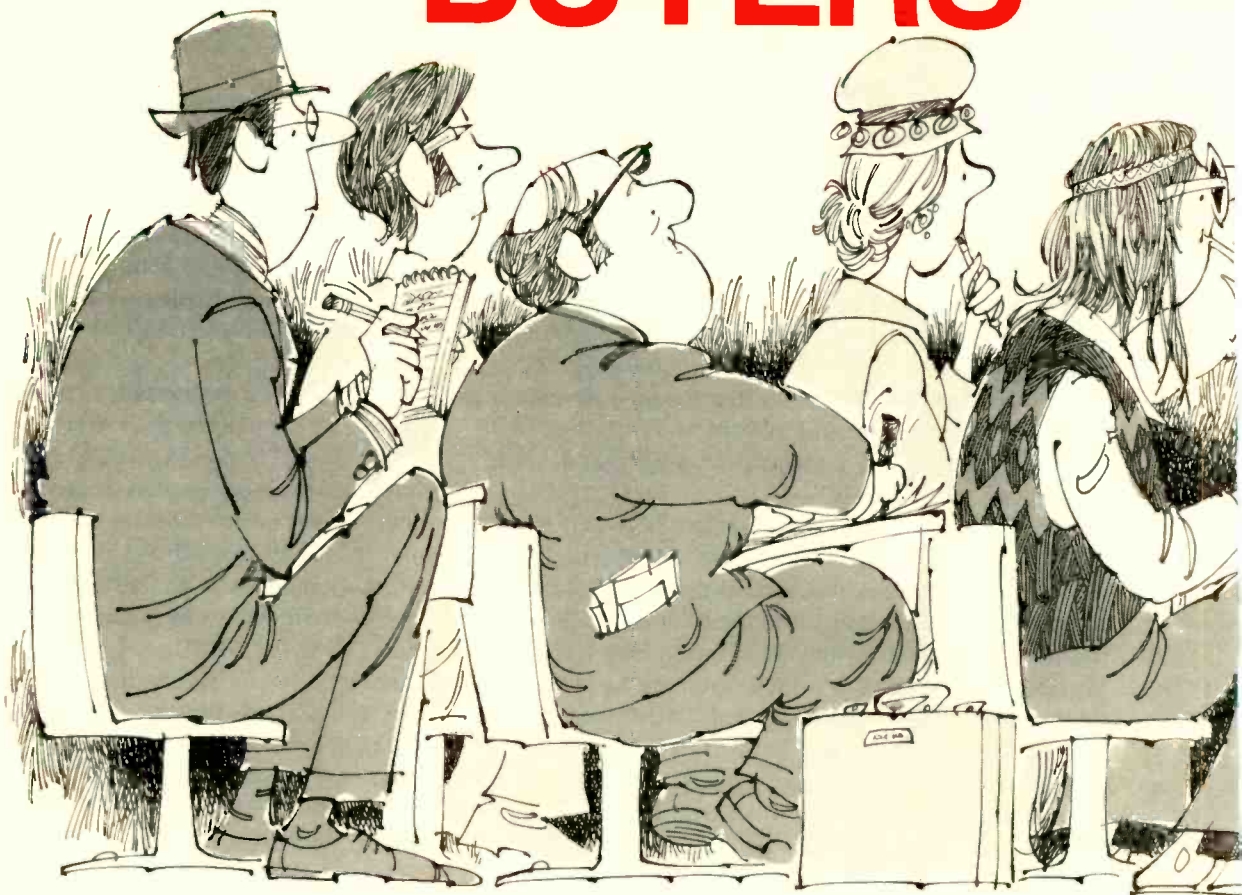
My own favorite among the half-dozen or so modern stereo recordings is the performance by Arthur Grumiaux, with Colin Davis conducting the London Symphony Orchestra (Philips 835136; cassette 18142 CAA). This is a lithe and supple performance, cleanly articulated and with a rhythmic snap and vitality that are truly engaging. The recorded sound is a model of clarity, and the disc surface comes as close to silence as one could reasonably hope for. This is one of the best of all Mozart violin concerto recordings.

The Francescatti-Walter collaboration (Columbia MS 6063) presents an altogether more Romantic approach, with some lingering over notes and phrase endings and an interpretive point of view that is generally "beefier." The Makanowitzky-Ristenpart recording (Nonesuch 71056) finds a middle ground between the Classical purity of Grumiaux-Davis and the effulgence of Francescatti-Walter, and at Nonesuch's bargain price it has its own special attraction.

The biggest disappointment among the available recordings is the Zukerman-Barenboim collaboration (Columbia M 30055); here, self-indulgence on the part of both soloist and conductor leads to exaggerated phrasing and overinflected dynamics. There is apparently no available recording in the reel-to-reel tape format.

* Mr. Bookspan's 1972 UPDATING OF THE BASIC REPERTOIRE is now available in pamphlet form. Send 25¢ to Susan Larabee, Stereo Review, 1 Park Avenue, New York, N.Y. 10016 for your copy. *

Prof. Julian Hirsch conducts **A SEMINAR FOR TAPE-RECORDER BUYERS**



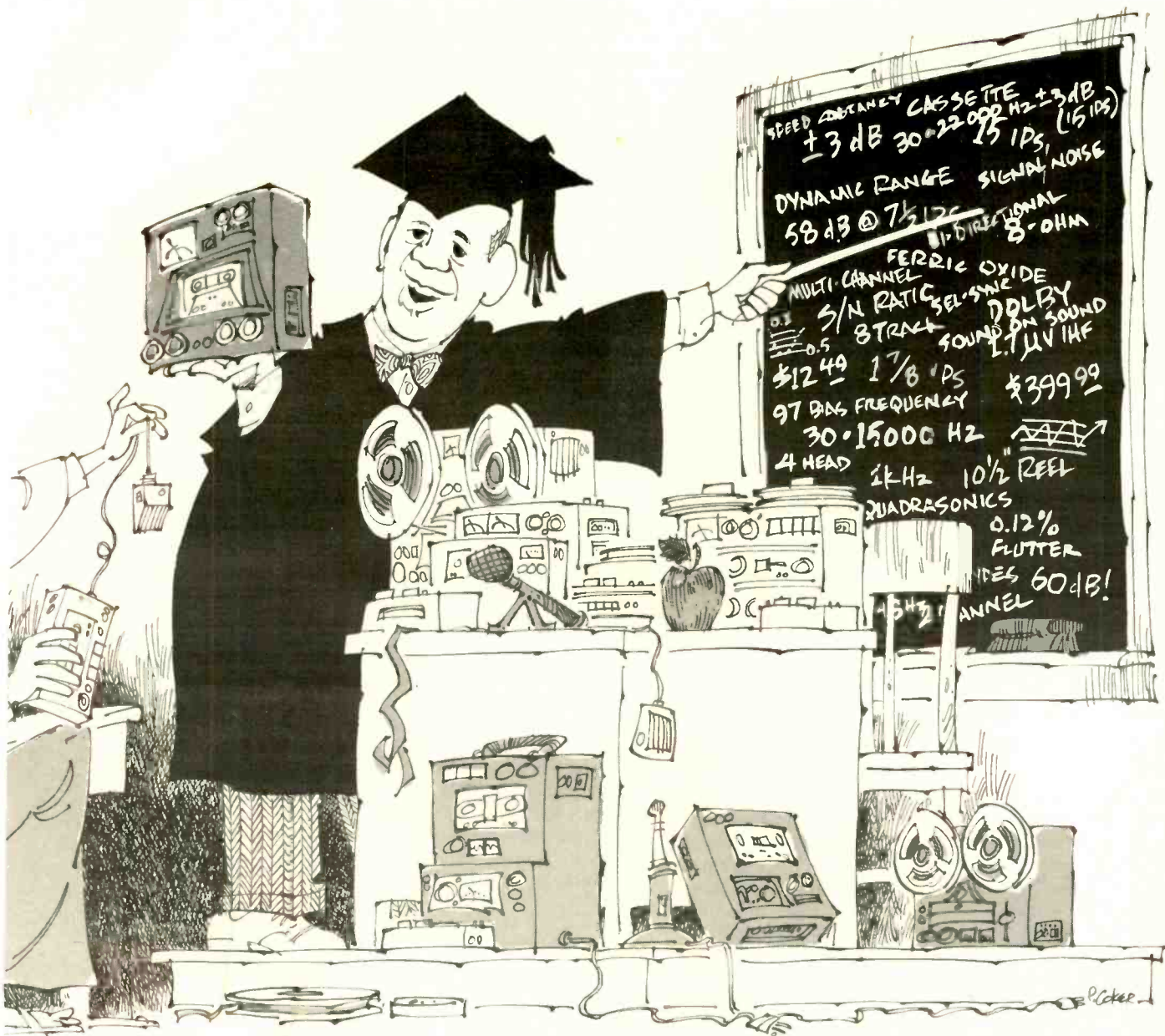
BUYING a tape recorder, like buying an automobile, can severely test one's ability to distinguish between essentials and frills. In both cases, the "extras," which contribute little or nothing to the basic function of the product, have a disproportionate effect on its price. Worse yet, they can in some cases actually reduce the machine's reliability or its ease of operation. For example, the electric windows on my automobile have proved to be more expensive to maintain than the engine that drives the car. Nevertheless, their convenience (when they work) justifies — to me, at least — their cost and the annoyance of sometimes not being able to open or close a window.

To return to the subject at hand, however, it is

well to have a logical procedure in mind when you set out to get the best tape recorder for your needs so that you can avoid being distracted by nonessentials. Thus, you will want to:

1. *define* your goals and enumerate your intended uses for the recorder;
2. *examine* all pertinent specifications and characteristics of the tape recorders available to you; and
3. *choose* a model that meets your requirements nicely, is not saddled with an unreasonable number of extra-cost, unneeded features, and that bears a price you are willing to pay.

Before considering what sort of performance will be needed for various types of recording, it might be well to review briefly some basic recorder performance characteristics and their significance. Those



characteristics that relate directly to sound quality are relatively few in number and are given in no particular order of importance.

The Pertinent Specifications

● **Frequency Response:** This usually refers to the overall record-playback response of a machine. The *playback equalization* of most recorders, which is the factor involved in playing commercially recorded tapes and tapes made on other machines, falls close to the standard industry curve, regardless of a given machine's recording characteristics.

The frequency-response specification of a recorder can be misleading rather than informative unless a tolerance in decibels (dB) is also specified. A typical tolerance, such as ± 3 dB, over a given frequency range means that,

with a constant-level input signal, the playback signal can vary over a total of 6 dB (3 dB above and 3 dB below the 0 reference, which is at a mid-range frequency). Since the response curves of most recorders are somewhat similar in shape if not in detail, one can assume that there will be a droop in response somewhere between 10,000 and 20,000 Hz. There may also be a rolloff below 50 Hz or so. The published frequency-response specification is therefore a useful guide to the overall performance quality of a tape recorder *as long as the variation from flat response is specified in decibels.*

● **Wow and Flutter:** Wow and flutter are short-term fluctuations in the tape speed which in turn cause pitch fluctuations—frequency modulations—in the recorded program. Wow occurs at low cyclic rates (one-half to ten fluctuations per second) while flutter is more rapid (ten to three hundred per second). In tape transports there is usually more flutter than wow. The subjective offensive-

ness of flutter is a function of its amplitude and rate, the nature of the program material, and the aural acuity of the listener. In other words, a given amount of flutter in a machine will bother some people sometimes, with some program material, but it won't bother everybody all the time unless it is very severe. Flutter is expressed as a percentage (of frequency modulation) of the test signal.

● **Signal-to-noise (S/N) Ratio:** Sometimes referred to as *dynamic range*, this is the "spread" between the highest signal level that can be recorded without exceeding a specified level of distortion (usually 3 per cent), and the residual noise. The noise comes from the interaction of tape and bias and is also produced in the playback amplifier. Since the ear's sensitivity to noise varies with frequency (in general, upper mid-range noise is most bothersome, and very-low and very-high frequency noise the least), the signal-to-noise measurement is sometimes "weighted" to match that sensitivity more closely.

Although the recorder's distortion is a major factor in determining its S/N ratio, distortion is rarely specified separately. Recorders are usually designed so that a signal level of 0 dB on their meters does not produce more than 3 per cent distortion, and at lower levels the distortion is correspondingly less. The better-grade machines, as a rule, allow more "headroom," so that an off-scale meter reading of perhaps +6 to +10 dB will produce only 3 per cent distortion (the 0-dB meter level in such a case will then correspond to about 1 per cent distortion).

THERE are many other recorder specifications, some of them not necessarily related to sound quality, that cover, in general, the "extras"—the added versatility and convenience factors. Some of these are:

● **Tape Speeds:** Tape speeds are designated as the number of inches of tape passing over the recorder's heads (either record or playback) per second—abbreviated, ips. Cassette recorders operate only at $1\frac{7}{8}$ ips, but all open-reel home recorders offer the option of at least two tape speeds, usually $3\frac{3}{4}$ and $7\frac{1}{2}$ ips. Many open-reel machines also offer the $1\frac{7}{8}$ -ips speed, but their high-frequency response in this case is severely limited, usually to less than half what it is in a good cassette machine. A few machines can also operate at 15 ips, but these are usually of semiprofessional caliber—and they bear an appropriately high price. Only the most advanced tape hobbyist is likely to require the 15-ips speed, whose chief advantage, in the usual quarter-track (see below) format, is the ease it offers in editing the finished tape (a second's worth of music covers 15 instead of $7\frac{1}{2}$ inches of tape).

● **Quarter-track and Half-track Operation:** Stereo tape machines record two parallel magnetic tracks on the tape—one for each channel. Practically all home recorders have what are called "quarter-track" heads, so that a stereo program being recorded takes up only half (two quarters) of the total width of the tape. This leaves room for a second stereo program, which is recorded in the opposite direction on the same tape, usually from the point where the first stereo program ends and on back to its beginning. Some semiprofessional machines can be purchased with "half-track" heads, and these use the entire width of the tape for a single stereo program. Though this format provides a slight improvement in signal-to-noise ratio and is also the only sensible arrangement for tapes that must be edited, the sonic advantages of a half-

track machine over a good quarter-track machine are not often apparent. However, a half-track playback head is necessary for the proper reproduction of recorded half-track tapes. As a rule, half-track machines come in the 15-ips tape speed, and often in $7\frac{1}{2}$ ips as well.

● **Bi-directional (Automatic Reverse) Operation:** With quarter-track tapes recorded in two directions, the convenience of not having to interchange tape reels (or turn over a cassette) to play the second pair of tracks is undeniable, although this feature might be even more useful when recording than when playing back a tape. However, most auto-reverse recorders provide this extra facility only in playback mode.

Aside from its added cost, the only other disadvantages of the auto-reverse feature are the possibilities of a slightly different frequency response in the two directions (because of using two playback heads) and perhaps more wow and flutter in the reverse direction (because of physical factors in tape handling). Careful head alignment by the manufacturer can prevent frequency-response difference, but this also becomes an added consideration in recorder maintenance. Wow and flutter can be kept to a minimum if the tape path is specifically designed with this in mind, but it is one more concern which can add to the cost of the machine.

● **Off-the-tape Monitoring:** Virtually all open-reel recorders with any pretensions to high-fidelity capability have separate recording and playback heads and amplifiers, so that one can listen to the program from the tape an instant after it has been recorded. These "three-head" machines generally offer improved performance as well as convenience, since each head can be designed for maximum performance of its special function rather than being a compromise design such as the combined record/playback head in a two-head recorder.

At present, with a very few exceptions, cassette recorders are of the two-head variety and cannot monitor from the tape. Some three-head cassette recorders have been developed in Japan, but they are not generally available as yet in the U. S.



● **Special Effects:** Many recorders offer "sound-on-sound," "sound-with-sound," echo, and other special-effects capabilities. All that any of these features require of a tape machine is the ability to record on one channel while playing back on the other. Sound-with-sound is the recording of a new program on channel two after channel one has been recorded. Sound-on-sound involves the transfer of a recording already made on channel one to channel two; at the time of the transfer, new material can be added, synchronized with the played-back signal from channel one. Sound-on-sound recording can be done with external patch cords, but many recorders now accomplish it with built-in switching.

Since the playback head comes *after* the record head in a three-head machine, synchronizing a recording on channel two with playback of channel one during sound-with-sound recording is impossible. Professional recorders therefore contain a system called "Sel-Sync" or "Simul-Sync," which temporarily switches part of the record head to play back an already recorded track while new material is being added on another track. This also avoids the slight degradation inevitable when using the re-recording technique of sound-on-sound. (Sel-Sync facilities have recently begun to appear on some home machines, principally four-channel models. These will be discussed later in the section on four-channel.)

● **Number of Motors:** It is generally believed that separate motors for the capstan and each of the reel hubs results in better tape handling and reduced flutter. As a rule this is true, although there are a few single-motor machines with considerably better characteristics in this regard than some low-price three-motor types.

Three-motor designs tend to require less frequent adjustment, since they do not depend on a system of clutches and belts to couple the output of a single motor to several rotating shafts operating at different speeds and in different directions. They are also capable of remote control (in many of the more expensive models), since the transport functions are activated by electrical solenoids rather than by mechanical linkages. But the most obvious advantage of three motors is the higher rewind and fast-forward speeds they provide, usually at least twice as fast as those of a single-motor machine.

Cassette transports use either one or two motors. The use of two motors may indeed result in lower flutter, but it is more likely to be justified by better tape-handling characteristics at fast speeds. There are also cassette transports that use a dual capstan system, driven by a single motor, to keep the tape under controlled tension as it passes the head and thereby reduce flutter.

● **Miscellaneous Features:** The special features of many tape recorders include: pause control, tape-bias selector for different types of tape, index counter with a memory system to stop the tape at a pre-determined point, headphone jacks, mixing inputs for microphones as well as high-level sources, simplified tape-loading paths, ability to use reels larger than 7 inches in diameter, tape-tension selector for tapes of different thickness, battery operation for portable use, built-in power amplifiers and monitor speakers, built-in Dolby or other noise-reducing systems, and many others.

Most of the better cassette decks have built-in Dolby noise-reducing circuits (some JVC machines use that company's Automatic Noise Reduction System—ANRS—which operates similarly), or a different system, developed by Philips (Norelco) and called the DNL noise

reducer, which can help reduce noise in material that has *not* been recorded with a noise-reduction processor in the first place.

To some users, one or more of these features may be vital. To others they are quite unnecessary. Their true importance must be evaluated individually, since they can sometimes have a substantial effect on price.

The Intended Uses

Though the uses to which home tape recorders are put are too numerous to list individually, the bulk of them can be assigned to one of several major categories. The machine most suitable for one type of operation is often quite unsuitable for some others, and it is therefore not only possible to overspend for a recorder without commensurate performance gains, but to get a machine that will not even do the expected job well. Let us consider, then, the special equipment-performance needs of the basic categories of tape recording.

● **Non-critical Voice Recording:** Probably the least demanding use for a tape recorder is the casual recording of voices, whether they are those of children reciting, lecturers, or adults conversing among themselves. Practically any recorder is adequate for these purposes, but the convenience and portability of cassette machines have made them the preferred choice. A frequency response of 100 to 6,000 Hz is more than sufficient for voice clarity, and flutter of 0.3 per cent or more will often go unnoticed. Dynamic range, noise, and other normally important specifications are really of no consequence. One useful feature found on many portable cassette machines (as well as some open-reel decks), however, is automatic recording-gain control. Although this sacrifices the natural dynamic range of the "live" event (usually unimportant, in any event, for most speech recording), it relieves the recordist of the chore of adjusting levels for different voices, some or all of which may be at different distances from the microphones.

● **Live Recording in the Home:** A related, but more demanding, application is the recording of live music in the home (as distinguished from a concert hall or studio environment). A child's performance on a musical instrument, or the more serious efforts of an amateur chamber music group, instrumental soloist, or vocalist are typical examples. Here, the required degree of sophistication in the equipment must be directly proportional to the expected results. If what is wanted is simply a record of the event, a sort of sonic snapshot, then even a portable cassette recorder may suffice. But if a reasonable standard of quality is desired, other recorder specifications must be considered.

Unless you are fortunate enough to have a pipe organ in your basement, or unfortunate enough to have a teenage bass-drum virtuoso in the family, there is no reason to record the *very* low (below 60 Hz) frequencies, so a recorder with that capability is a rather unusual requirement. On the other end of the spectrum, many people have an exaggerated idea of the importance of the very high frequencies to musical fidelity. The contribution of frequencies over 10,000 Hz is actually quite subtle. They *can* add the final touch of realism to an already excellent

recording, but their absence from most home recordings (even very good ones) would seldom be noticed. This is due, in part, to the decreased output of most speakers at these frequencies. An otherwise good recorder with its response limited to a 60- to 10,000-Hz range would probably be fine for most live home recordings. Almost any of the tape decks one might seriously consider for this purpose, including many modern cassette recorders, will meet this requirement easily.

For reasons of tape economy, 3 $\frac{3}{4}$ ips is becoming a preferred speed for tape hobbyists. Many lower-price open-reel machines have good response to 10,000 Hz or higher (as well as fairly low noise) at that speed, and the better ones go beyond 15,000 Hz. Therefore, most of the time there is little reason, from the standpoint of "fidelity," to use a tape speed higher than 3 $\frac{3}{4}$ ips in home music recording. However, you should not expect that the frequency response of an open-reel recorder at 1 $\frac{7}{8}$ ips (or even, in many cases, at 3 $\frac{3}{4}$ ips) will match that of a good cassette deck.

As was mentioned earlier, tape recorders usually have a rather smooth frequency-response characteristic, falling off at the extremes, but without serious irregularities in the middle range. This simplifies interpreting published specifications, since two machines with the same rated response (including the decibel tolerance) can be considered fairly comparable in this respect. There may be audible differences between them, but these will not be gross in nature. This is in sharp contrast to the situation existing with loudspeakers, whose frequency-response specifications give almost no indication of how they sound compared with similarly specified speakers.

IF frequency response is not very important, then what is? Dynamic range, for one thing. This is usually expressed as a signal-to-noise ratio, and may be 40 to 50 dB in inexpensive open-reel decks or cassette recorders without Dolby circuits, and 55 to 60 dB in the better medium-price open-reel units or Dolbyized cassette decks. Only the best home open-reel recorders can achieve a S/N ratio better than 60 dB without the use of Dolby noise reduction. Dolby accessories can be added externally to any tape recording system to extend its dynamic range by 6 to 10 dB. However, the added expense probably would not be justified for the sort of home recording we are now considering. A S/N ratio of 50 dB or less will almost always result in a pronounced background hiss, especially during quiet moments in the program. When the noise is reduced to -55 dB or below, this hiss may be heard only when the music in the program is silent, unless the playback volume is relatively high. The background noise level in most homes will often mask a hiss level of -60 dB or less, and may even make a poorer S/N ratio acceptable.

One of the few tape-recorder specifications that is directly related to price is speed constancy. For most home-recording purposes, the actual *average* tape speed is not critical. However, short-term fluctuations are highly objectionable, since they cause the audible effects of flutter and wow. Depending on its frequency and amplitude, as well as the type of program material, flutter may be heard in different ways. In extreme cases (some very low-price cassette machines) it produces a "gargling" or roughness that can be heard on voice recordings, and is quite intolerable for any kind of music. Smaller flutter percentages may simply "muddy" the

sound, causing a loss of clarity that is sometimes blamed on other forms of distortion.

Some people find a flutter level as high as 0.2 per cent quite acceptable (this is not true for wow, whose effects cannot be mistaken for anything else and therefore are more prominent, even for uncritical listeners). Most modern cassette decks have less than 0.2 per cent flutter. Open-reel machines selling for more than about \$200 frequently are rated at under 0.12 per cent flutter, and the fact that most people are not aware of flutter at this level suggests that it is a reasonable criterion for high-fidelity service, at least in ordinary home recording. Several of the best cassette machines also achieve a flutter rate of between 0.1 and 0.15 per cent.

However, a 0.12 per cent flutter rating does not automatically assure acceptability to a critical listener. Certain musical instruments, such as the piano and harp, can reveal minute amounts of flutter whose amplitudes are difficult to measure accurately. Also, some individuals have an acute sensitivity to flutter. Most of us would find 0.1 per cent flutter quite insignificant, but a few people must pay a real price for their superior aural acuity, since only the most expensive semiprofessional recorders are likely to meet their standards.

A study made of advertised specifications has shown that almost every modern open-reel deck, and a number of top grade cassette recorders, should meet the needs of the hobbyist who wishes to make live recordings in his own home. Since the prices of these machines range from about \$200 to almost \$1,000, it would seem that we haven't yet narrowed down the field of choice very far.

As readers with long memories will remember from my opening words, it is in their "extras" that most otherwise similar recorders have their differences. What, for example, of the question of one motor vs. two or even three? The better three-motor machines have less flutter than most one-motor machines—but they also cost a lot more. On the other hand, a really good single-motor transport can have much less flutter than a medium- or low-price three-motor machine. There is more likely to be a correlation between low flutter and high price than between low flutter and the number of motors. If you now have—or intend to have—a large collection of recordings, a bi-directional machine can add a great deal of convenience to your tape playing. Special features such as sound-on-sound and echo are available on most recorders, although their ease of use varies widely; in any case, such features are seldom used.

For many home recordists, then, there is little to be gained by using a very expensive machine (say, a \$700 as opposed to a \$400 model), for the somewhat better specifications of the very expensive machines would in most cases be wasted on source material that did not require them. For most home recordists, it would be better to invest some or all of the price difference in two reasonably good microphones. Those microphones whose quality compares reasonably closely to that of a good tape deck cost at least as much as the deck itself—and you need *two* of them for stereo. Fortunately, some very good dynamic or capacitor (electret) microphones are available for less than \$75. The improvement in sound quality achieved over that provided by the garden-variety tape-recorder microphone easily justifies their higher price.

Judged purely from the listening standpoint, the high-end cassette recorders are frequently adequate for live

recording in the home. But a caution is in order here. As we have mentioned, some people are disturbed by flutter levels that may be inaudible to others. Considering that most home live music recording is likely to include a guitar or piano (both of which will tend to show up whatever flutter is present in the recorder), it may not be possible for some people using otherwise fine cassette machines to obtain a satisfactory recording. The better open-reel machines will usually have somewhat lower flutter, making them the preferred choice for the flutter-sensitive music lover.

The impossibility (or, rather, great difficulty) of editing a cassette recording is, of course, a real disadvantage, although careful planning and use of the pause control make it possible to produce a well-organized recording. Some cassette recorders have appreciably higher noise levels through their microphone inputs; if this is objectionable, there are external microphone preamplifiers that can be used to drive the recorder's line inputs.

● **Taping from Discs and FM Broadcasts.** Another application for home tape recorders, probably more widespread than "live" recording, is taping FM broadcasts and copying phonograph records. It may seem paradoxical, but if you are trying for an exact copy of a record, a wider frequency response is required than for live recording, since the microphone will no longer be a limiting factor. On the other hand, FM broadcasts (especially in stereo) do not have any program content outside the 30- to 15,000-Hz range. In fact, if your recorder response extends beyond 15,000 Hz, it may be desirable (depending on the characteristics of your tuner or receiver) to use a low-pass filter at its inputs to prevent the introduction of "birdies" or beats between the tuner's ultrasonic multiplex signal and the recorder's bias oscillator. Most tuners (and some recorders) already have such filters; the point is that response beyond 15,000 Hz is neither necessary

"... The most demanding recording situation ... is the taping of a live-music performance on location ..."



nor desirable for the adequate taping of FM broadcasts.

The situation with records is only slightly different. There is no need to restrict the recording bandwidth to 15,000 Hz, but neither is there any advantage in going much beyond that point. Except for a few demonstration records, stereo discs have little content above 15,000 Hz; even when it is present in measurable amounts, few people have the speakers and the ears required to produce and detect it.

From frequency-response considerations alone, it would seem that most component-quality open-reel tape decks (at the 7½-ips speed) and the better cassette machines should be able to record anything likely to be encountered on discs or FM broadcasts. Even at 3¾ ips, many tape decks have good response to 15,000 Hz, but they are generally more expensive than cassette recorders with the same bandwidth.

But, again, frequency response is by no means the *only* criterion (or even the most important one) for high-fidelity recording. Noise levels of modern discs are so low that much of the hiss we hear on them comes from the master tape itself. Making a facsimile tape copy of these records requires the lowest possible recorder noise level, preferably -60 dB or lower. A number of open-reel decks, and most Dolby-equipped cassette machines, will prove satisfactory. The impracticality of editing a cassette is not a drawback in this application, since the program can be planned completely before it is taped.

The S/N ratio of a received FM broadcast depends on several factors besides the original program's noise level. In most areas, mono FM reception will provide nearly the same S/N ratio as the original recorded program. With stereo, the hiss level is always higher, and is usually audible (the sudden quieting when a tuner is switched to mono is convincing evidence of this fact). This eases the recorder S/N requirements somewhat, unless your stereo FM reception is exceptionally quiet. It is interesting to note that, now that some FM stations are transmitting a Dolbyized audio signal, a listener can actually improve the overall S/N ratio as well as obtain a more balanced frequency response (unless a Dolby-equipped FM tuner is being used) by first recording the tuner output on a Dolby-equipped cassette deck (with the Dolby switched off) and then playing it back with the deck's Dolby circuits switched on.

● **Live Recording on Location.** The most demanding recording situation likely to be encountered by an amateur is the taping of a live-music performance on location, such as in a school auditorium or concert hall. Here the goals—and the problems—are very similar to those of a professional recording engineer, although the amateur usually does not have the benefit of professional-grade equipment or the "know-how" that comes with years of experience.

A comparison of professional tape recorders with those intended for home use will show that the former have few of the "extras" or special features found on most consumer products. Such niceties as index counters, bi-directional recording or playback, and built-in power amplifiers or speakers are usually absent from the "pro" recorder. Unless it is a specialized portable model, it will be equipped for 10½-inch reels, be more likely to have half-track heads than the quarter-track variety, and be able to operate at 15 ips or higher speeds. It will also be very rugged, usually heavy, and always expensive.

Many of its special qualities are dedicated to making it

a reliable instrument, capable of being transported under less-than-ideal conditions and able to operate without failure hour after hour, day after day. Fortunately for the part-time recordist, many good consumer tape recorders come remarkably close to meeting the electrical and mechanical performance of professional recorders, at least under less strenuous conditions. For reasons of quality as well as editing ease, it is preferable to use a 7½-ips tape speed (unless 15 ips is available).

It cannot be overemphasized that in live recording the microphones are the keys to the final results. The end product of a taping session can be no better than the quality of the microphones will allow, no matter what recorder is used. For straight two-channel recording with two microphones, the microphone inputs of the better open-reel machines should suffice. With more than two microphones, or if the recorder's internal microphone preamps' S/N ratio is not adequate, an external microphone mixer should be used.

In many situations, the 55 to 60 dB S/N ratio of most good-quality open-reel machines may be sufficient. If both the ambient noise level and the average program level are low, the Dolby-B noise reduction system can be used to advantage. A number of suitable "add-on" Dolby units are available, and at least one of the higher-price recorders can be purchased with built-in Dolby facilities.

Cassette recorders can be used effectively for high-quality live recording, with some qualifications. The Dolby system is a "must," and the tape should be either chromium dioxide or the best grade of ferric oxide. All the cassette machines that we have checked have significantly higher noise levels through their microphone inputs than through their line or high-level inputs, and the Dolby system (because it comes *after* the mike input) cannot improve this situation. Therefore, a low-noise external microphone preamplifier or mixer is desirable. (The previous comments about flutter also apply.) Quality aside, the cassette medium does not lend itself too well to serious live recording, since the tape cannot be edited directly. To some extent, editing can be accomplished by dubbing the original tape onto another cassette, but the inevitable degradation of S/N ratio, even with Dolby, may not be acceptable.

● **Quadraphonic Recording.** By utilizing all four tracks of the quarter-track tape format, recorded in the same direction and played back simultaneously, discrete quadraphonic reproduction is possible through a four-channel sound system. At present there is a modest number of open-reel four-channel prerecorded tapes available, and some tape machines to play them; many of these are also capable of recording in four channels (all, of course, can record and play two-channel tapes as well). Except in the addition of two or more independent channels, quadraphonic recorders do not differ from two-channel machines in any significant respect, and the performance requirements are the same for both types of equipment. As mentioned earlier, some of the most expensive four-channel recorders have Sel-Sync facilities on all four channels—a feature that could be of real interest to rock groups seeking multi-track recording capability. For the home recordist interested in quadraphonic sound, a two-channel-record, four-channel-playback machine might be the most practical choice, since the total investment (including microphones) for four-channel recording capability is likely to be quite high—especially if all four channels are to be Dolbyized.

● **Listening to Recorded Tapes.** If a tape recorder is to be used primarily for playing commercially recorded and duplicated tapes, there is a wide choice of suitable models. Most open-reel machines have good playback equalization accuracy, and the same flutter considerations apply to playback as to a machine used for recording as well. Both 3¾-ips and 7½-ips speeds should be available. Since all prerecorded tapes being produced today are quarter-track, a bi-directional, automatic-reversing transport is a great convenience, minimizing the "turn-around" time normally required for switching reels and re-threading the tape. Most auto-reverse systems use a conducting strip that must be attached to the tape at the desired reversing point. With some machines, a sub-sonic tone is recorded where reversal is desired. Both systems work equally well, but the tone technique is, of course, more convenient.

A number of commercial open-reel tape releases are now available with Dolby-B encoding, and a Dolby playback decoder is necessary for playing them. A major weakness of high-speed duplicated tapes has always been their high noise level, and the Dolby system can make a dramatic improvement in this respect. As mentioned previously, open-reel machines are available with built-in Dolby circuits, but they are expensive. A simple external accessory is the most economical way of adding this capability to other recorders, and the add-on unit can also be used with other sources.

Commercially recorded cassettes are notoriously noisy. Many are now Dolby-processed, however, and with a suitable Dolby cassette deck they can deliver surprisingly good sound—though not by any means the equivalent of a good open-reel tape, a disc, or even a home-made cassette recording. There are some auto-reversing cassette decks available, but very few have built-in Dolby circuits as well.

The Choosing—A Summary

The guidelines offered in the foregoing discussion have deliberately been left very flexible. Depending on the user's expectations, it is often possible to achieve very good results with a rather low investment in equipment. You should not, however, expect to make professional-quality live recordings if all you have to work with is a \$200 deck and a pair of \$10 microphones. By the same token, it is a case of ridiculous overkill to use a deluxe Dolbyized open-reel recorder costing close to \$1,000 if all you intend to use it for is taping discs and an occasional FM program.

I would also like to emphasize, for the benefit of the doubting Thomases, that the cassette medium is *not* to be underestimated. In expert hands, these machines can produce recordings that rival even the best efforts of many less-adept open-reel enthusiasts. But whatever kind of machine you finally settle on, you will still have to add something of your own—the requisite amount of operating know-how. Best results are achieved only through skilled use and proper maintenance.



"Perfect troubadour" Tim Hardin: James Dean set to music in the Seventies

THE TROUBADOUR AS MIDDLE-CLASS HERO

A generation of protesting abstractionists (or abstracting protesters) proves a full belly is no cure for a Metaphysical Unrest

By NOEL COPPAGE

"WHAT made the real blues singers so great," Bob Dylan said to Nat Hentoff ten years ago, "is that they were able to state all the problems they had, but at the same time they were standing outside of them and could look at them. And in that way they had them beat."

If Dylan had stopped there, I would have marveled briefly and gone on my way—it *was* quite something for one so young (and so preoccupied at the time with emulating Woody Guthrie) to be so articulate about the subtle escapist side of the blues. But Dylan continued: "What's depressing today is that many young singers are trying to get *inside* the blues, forgetting that some older singers used them to get outside their troubles."

That tripped an incompatible assortment of tumblers in my brain and gave me a printout reading TILT—but a decade had to pass before I realized what was so troublesome about the comment. I might never have, had not Gordon Lightfoot provided catalytic action by writing *Don Quixote*, one of the best songs of 1972 (more about that later). I

grant Dylan's right to disavow any spur-of-the-moment statements he made long ago, and he might just want to do so with that one, because it reveals a curious lack of insight into the very clan of singer-songwriters that was forming around him at that moment. For in order to be *depressed* by the failure of his contemporaries to achieve the bluesmen's detachment, Dylan must have misunderstood the great difference between what was troubling the young singers and what was bothering Furry Lewis and Lightnin' Hopkins. Being a well-fed, middle-class, ideological dropout from college who sees injustice and is troubled by it is not the same as being a sixth-grade-educated, broke, direct *victim* of that injustice. The first, having options in his own life, is free to turn to the troubles of others. He wants to pitch in and help, wants involvement. The other, seeing no options and being physically uncomfortable, just wants the hell out of the situation. He wants escape. This not terrifically elusive truth helps us understand why Dylan and his followers did not — *could* not — become blues singers, however

fascinated they may have been with the idea. They became troubadours instead.

And Lightfoot, a decade later, gave them an anthem: "Through the woodland/Through the valley/Comes a horseman wild and free/Tilting at the windmills passing/Who can the brave young horseman be?" Don Quixote is a middle-class hero. Like Sancho Panza, the people whose suffering he would alleviate look upon his exploits as silly—when you're busy fussing with your woman, scolding the kids, and working like the debbil for your pay, you don't have much energy left to applaud fanciful forays against abstract enemies for the purpose of "righting wrongs." Like the original troubadours of eight centuries ago, today's folk-rock soloists have pretty well satisfied their own material needs and are looking to satisfy a psychic hunger for a Better World. Each is constantly saddling up his own Rosinante, each is driven by a Metaphysical Unrest. "I have searched the whole world over," Lightfoot writes, "Looking for a place to sleep./I have seen the strong surviving/I have seen the lean grow weak."

The great majority of today's troubadours come from white, middle-class backgrounds. Such blacks as Stevie Wonder and Richie Havens write good songs, but they are usually identified either with ethnic ("soul") music, as Wonder is, or with extraordinary reinterpretations of other people's songs (especially Dylan's), as Havens is. Such musicians do not quickly come to mind when the subject is troubadours.

Troubadours go about their business of protesting the times in their individual ways, employing a variety of styles, but they *all* protest. Dylan stopped writing "protest songs" in the narrow sense of the term about the time he wrote *My Back Pages* to renounce his earlier, oversimplified attitudes

("Equality, I spoke that word/As in a wedding vow./Ah, but I was so much older then/I'm younger than that now."). But it is the troubadour's lot to protest, even to write a protest song in order to renounce protest. The difference is that nowadays the protest is more abstract. These days Dylan writes, "What's the matter with me?/I don't have much to say. . ."—which is to say, in an oblique way, What is this crazy environment doing to us? Why do we feel powerless to change all that cries out for change? The better today's troubadour is, the better he has assimilated into his image this new attitude of abstract but pervasive protest. The better he is—be he Neil Young (fringed jacket, melancholy mood), George Harrison (spiritual beard, mystical eminence), or Kris Kristofferson (colorful scars, dirt-farmer eloquence)—the better he embodies the time's necessity for something quixotic to set against the computer programs and the trips to the moon.

THE troubadours come in as many shapes and styles as there are stages in Dylan's own often puzzling progression. (Joyce Carol Oates is probably correct about Dylan: "As fast as people imagine they are following his career, he is always ahead of them and therefore no longer interested in their opinions. . . .") Troubadours may have great vocal range (John Denver) or practically no range at all (Tony Joe White); they may have powerful actor's voices (David Ackles), or weak, thin voices (George Harrison), or strong but doggedly unmusical voices (John Stewart); they may go in for sexual mysticism (Leonard Cohen), science fiction (Paul Kantner), hard-core idealism (John Lennon), Swif-tian satire (Tom Paxton), Mark Twain-style put-ons (Mason Williams), the art song (Tim Buckley, Cat Stevens), political theater (Country Joe McDonald),



Alphabetically and left to right, row 1: David Ackles, Jackson Browne, Tim Buckley, Leonard Cohen, and John Denver. Row 2: Neil Diamond, Dion, Bob Dylan, and George Harrison.



cultural theater (Leon Russell), swamp funk (Jerry Reed, Doug Kershaw), reconciliation (John Denver, Dion), or even cowboy stories (Elton John, Bernie Taupin). It is likely that a true scholar—or a glutton for punishment—could find a parallel for each of these styles in the works of the original Provençal troubadours. Myself, I quit after finding possible similarities between two of the nuttier troubadours then and now, Peire Vidal of Toulouse and Billy Edd Wheeler of West Virginia. It was Peire who, being in love with Loba (“She-Wolf”) de Penautier, dressed himself as a wolf and was chased by a pack of hounds before her castle. It was Billy Edd who wrote and sang about how he wasn’t an educated fellow (which is false, incidentally), but how he had learned to tell a horse from a mule—only to find it didn’t help him at all where women were concerned since they all have the same size ears.

Neil Young heads one division of troubadours whose first weapon against the *status quo* is to sound mournful about it. Nobody does this as well as Young. Tom Rapp, God knows, tries, and Steve Stills, God knows, can’t wait to try *anything* Young has tried; but Young just sounds sadder than most singers on the simple basis of vocal-cord construction, and he has more talent than most for writing sad melodies and neatly ambiguous lyrics. His *Helpless*, read as a poem, would seem a not particularly unhappy restatement of man’s insignificance in the universal scheme: “Blue, blue windows behind the stars,/Yellow moon on the rise,/Big birds sailing across the sky,/Throwing shadows on our eyes,/Leave us helpless, helpless, helpless. . . .” But read it again with the proper cadences and phrasing, and it starts to sound wistful, and to have broader implications about man’s relationship with nature. Add the melody, and the song’s melancholy character becomes undeniable. Now add Young’s

nasal-dirge vocals and damned if you don’t have a full-scale lament on your hands.

The content of Young’s lyrics, though often meaty, is on the whole less important than the style in which he delivers them and the dynamic that is set up between lyrics and melody. Not so in the case of, say, Tom Paxton. No decent singer could keep his *Forest Lawn* or *Jesus Christ S.R.O.* from sounding like biting, funny comment on the times. In these songs the melodies fit the words (and in both cases Tom has confused the issue slightly by borrowing and inserting snatches of old hymns to reinforce his point), but they don’t tamper with the meaning of the words. Kristofferson’s work seems to show the same logic: his lyrics and melodies are expertly crafted to fit together, but there is not much evidence that for “neutral” lyrics Kris tries to invent a melody that will render them “happy” or “sad.” Young’s voice, lyrics, and melodies are a unit, practically welded together. Few other troubadours dare to be so stylized.

Dylan taught would-be troubadours conflicting approaches to lyrics by being plain-spoken and heavily metaphorical at the same time. Most of his disciples have decided (to invoke Dylan’s words) that you must choose one or the other. Kristofferson and John Denver both insist that young John Prine from Chicago is “the best songwriter in the world.” Prine does not mess much with metaphor (neither do Kristofferson and Denver), and he does, indeed, show extraordinary potential as a songwriter—particularly in his ability to shift to unexpected viewpoints and discover unlikely subject matter. This same ability has marked the work of such great songwriters as Jim Webb, Harry Nilsson, and Randy Newman. On the other hand, there’s another hot young prospect, Don McLean, who seems to take considerable pleasure in present-



Row 1: Richie Havens, Elton John (with Bernie Taupin), Paul Kantner, Doug Kershaw, and Kris Kristofferson. Row 2: Gordon Lightfoot, Joe McDonald, Don McLean, and Randy Newman.

ing us with a tumble of symbolism, metaphor, and seemingly unrelated lines (listen to *Vincent*). Prine and McLean chose their respective routes, I think, because of the difference in their singing abilities. McLean, with an instantly recognizable and well-liked singing style, can afford to make his audience dig for meanings—they stick with his vocals, and the digging gives them a sense of involvement—while Prine, with greater problems as a singer, must sell himself by means of the song itself. But maybe it's more complicated than that.

THE troubadour's relationship to his audience has in fact grown increasingly complex as affluence, mobility, and the media have increased the size of the audience and the availability of the performer. Out of this relationship have come influences that so color the way troubadours make their protests that it sometimes becomes impossible to tell if a performer really *has* an intrinsic style and is not just reacting to the audience. There are exceptions. Neil Young practically ignores the audience, so intense is his concentration on his work. But James Taylor, whose concentration seems mainly focused on audience reaction, is more typical. Taylor's "laid-back" style seems designed to prevent his being overtaken by the loneliness of being too far ahead of the audience. His song *Riding on a Railroad* does have a melody (as the Tom Rush version proves), but he presents it on stage and on records with the melody's highs and lows chopped off, turning it into a sing-song chant that any tone-deaf kid can "get into" after a few bars. The commercial problems of such creators as Brian Wilson and the successes of such groups as Grand Funk Railroad teach a lesson: it's frustrating riding point, and it's lucrative being just one of the boys. This self-imposed amateurism is not dishonest, however; these people—

James Taylor, Jackson Browne, Jesse Winchester, and practically any other you'd care to name—used to *be* the audience. They grew up in a generation that in its own way waged war on elitism. To them, members of the audience are as "good" as the musicians—and *vice versa*.

Too bad more of them haven't stumbled on Neil Diamond's formula for success. The greatest three-chord songwriter in the world, Diamond is the staple of disc jockeys in those mildly desperate moments when they grab for something both "new" and "dependable" to fill up the time between commercials. People barely notice that Diamond almost never lets them down. I don't know how he does it, but the result is that, though he seems to be insulated from the usual ravages of success, nobody could exactly call him a failure.

Some audience-related problems are even more insidious than those of Taylor and company, however. Gordon Lightfoot seems to assume that the audience will only *tolerate* him even at his best—indeed, there is something of the old-fashioned supper-club singer's anxiety to please in his vocal style. There is a kind of paradox here: in trying to sound polished, Lightfoot is defying the rule formulated by Dylan (who synthesized it from the "populism" of Pete Seeger, Woody Guthrie, and others) that a troubadour should sound unschooled. This started out merely as a rebellion against Tin Pan Alley's rules, but it has since become the rule itself, so that now—follow closely, please—if a singer wants to ingratiate himself with his audience he is supposed to sound as if that's the last thing he wants to do. But Lightfoot gets away handsomely with his defiance of this rule. His problem is that he writes with such clarity that he is considered too obvious to be really good. You do not need to puzzle endlessly over his lyrics to get them to make sense; he writes



Row 1: Harry Nilsson, Tom Paxton, John Prine, Tom Rapp, and ol' Jerry Reed.
Row 2: Tom Rush, Leon Russell, Cat Stevens, and John Stewart.



real melodies, lasting melodies, and you do not have to hear them twenty times before being able to whistle them. To understand why this should cause a problem, you have to understand the depth of distrust among the inarticulate for articulate people. It's just, um, well, like, not *organic* to be too articulate. So, saying it Mick Jagger's way ("What can a po' boy do/'Cept to sing for a rock-and-roll band?") will get you farther than Lightfoot's comparative eloquence ("Reaching for his saddlebag/He takes a battered book into his hand/And standing like a prophet bold/He shouts across the ocean to the shore/Till he can shout no more.").

Eloquence has hurt other songwriters, including Tom Paxton, Tim Buckley, and, lately, Kris Kristofferson. But it has never been much of a problem for the head mystic around here, George Harrison. George somehow manages to write two kinds of lyrics: (1) those that everyone can quote but that no one gives a thought to (*My Sweet Lord*), and (2) those that no one gives a thought to (*Wah Wah*). Still, George is justifiably well-loved as a troubadour, the Beatle Who Came Out on Top, thanks to his genuinely good heart and extraordinary instincts. John Denver told me he thinks George "gets an incredibly good guitar lick going and writes a whole song around that." Now that he mentions it, I can see that *While My Guitar Gently Weeps* and *Something* must have evolved that way, and *Beware of Darkness* and *Here Comes the Sun* probably did as well. Clearly, George writes both words and music for two voices: his and his guitar's. There's only one way to arrange his songs, and that's the way he sings them in the first place. This is as it should be with an eastward-looking philosopher, whose work, like his mind, should be lean, orderly, and more than a little weird.

In addition to *doing* a kind of thing, a troubadour

is also a kind of person. Although Harry Nilsson, Randy Newman, and Jim Webb are probably our best contemporary songwriters, I doubt that many people would call them "troubadours." They are *artists*, too much aware of what influences and materials they are assimilating and manipulating to be considered troubadours. As one becomes more and more conscious of just how it is that his own creative process works, he slips, willingly or not, into the category of the artistic elite. True, troubadours are self-conscious in their way, but they aren't very much aware of what lies beyond themselves and the buttons—their own—they are pushing.

THE prototypical troubadour not only has the populist touch of a home-grown poet, but he also embodies the restless, something-is-wrong-somewhere spirit he writes about, and he therefore looks the part. I submit that the perfect troubadour is Tim Hardin: unpredictable, unkempt, rebellious, sensitive, technically a question mark, possibly brilliant—James Dean set to music in the Seventies, a contemporary middle-class Don Quixote tilting at windmills with a musical lance. Our American troubadour, taking his cue from a group of poets whose tone was about the same as his, has fashioned music along the lines of the Elizabethan balladeers whose tummies were as full as his and who therefore, like him, had time to worry about the larger questions. I have speculated at times that this is a persistent Western-European type: the loner, fundamentally unable to function collectively, sewn up tightly inside his own skin but restlessly questing for involvement outside himself. Why one age should have them in greater abundance than another I can't explain. Whatever the reason, it has been literally centuries since the air was so full of the reverberations of Rosinante's hoofbeats.



Row 1: Stephen Stills, James Taylor, Jim Webb, Billy Edd Wheeler, and Mason Williams. Row 2: Jesse Winchester, Tony Joe White, Stevie Wonder, and Neil Young.

LAB TESTS ON THE NEW HIGH-PERFORMANCE OPEN-REEL TAPES

By Craig Stark

IN THE thirty-six months since STEREO REVIEW last printed comparative evaluations of open-reel audio tapes (March 1970), the number of such tapes on the market has increased substantially—as have, of course, the number of tape choices open to the serious recordist. Most of the new entries can be classified as (for lack of a better term) “high-performance” tapes, and as a group they represent a significant advance in the state of the tape-recording art. Our last survey included only one tape (Sony’s SLH-180) that was called a “low-noise/high-output” formulation by its manufacturer—justifiably so on the basis of its measured performance. This year’s report includes *six* such tapes (including Sony’s, which appears for comparison purposes), all of them worthy of the high-performance designation.

Recorder manufacturers have kept pace with tape developments by providing external controls to set up the recording electronics for different tape types, or by pre-adjusting their machines for the improved tapes at the factory. As for older recorders, some of them will readily accommodate the new tape formulations after readjustment by a service specialist or an experienced amateur using the necessary test equipment. If this is not possible, a moderate treble cut introduced with the tone controls on the amplifier or receiver may make the new low-noise and low-noise/high-output tapes perfectly usable on a machine adjusted for the earlier “standard” tapes—frequently with an improvement in signal-to-noise ratio and high-frequency response.

Because of their degree of compatibility with existing equipment and their appeal to the recordist interested in the best performance obtainable, it was decided to limit this series of tape tests to the latest available high-performance offerings, using, whenever possible, the popular 1-mil thickness. But

before turning to the specific tapes, we might review some of the basic principles of tape recording in order to appreciate what is involved in making the best use of a “superior” tape.

The internal adjustments in your tape recorder, as well as the tapes you use with it, represent compromises between conflicting demands. Therefore, to exploit the potential of *any* tape fully, your recorder should be adjusted for that tape’s specific characteristics. These compromises involve three factors: distortion, high-frequency response, and signal-to-noise (hiss) ratio.

An ultrasonic signal (called “bias”) is fed to the tape along with the signal to be recorded. The proper amount of bias to use (it is user-adjustable on some expensive machines) is usually determined by recording a 400-Hz tone and measuring its playback level. Up to a point, raising the bias current not only increases the playback level (thus helping to achieve a good signal-to-noise ratio) but also decreases distortion—a double gain. But beyond a so-called “peak bias” point, an increase in bias causes attenuation of the high-frequency response.

It is an unfortunate fact of recording life that the amount of recording bias current that enables the

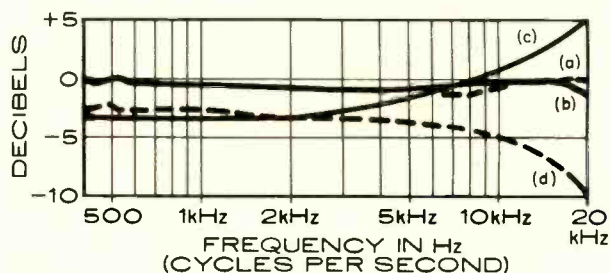


Fig. 1. Effects of recorder adjustment on tape performance. Record-playback frequency responses are shown for (a) 3M 111 and (b) 203 tapes with the recorder adjusted for each. Curve (c) shows 203 with 111 settings; (d) is 111 with 203 settings.



tape to have maximum output and minimum distortion at low and middle frequencies also causes severe treble losses. To some degree, these losses (plus those resulting from slow-speed operation) might be mitigated by reducing the bias current below its optimum level, but this would simply raise the distortion, so a better way has to be found.

"Recording equalization" provides a part of the solution. The main purpose of equalization is to tailor the frequency response of the input signal—the "message," so to speak—to match the needs of the tape, or the "medium." However, a secondary purpose is to adjust the treble response during the recording process so as to compensate for the various losses. The large amounts of treble boost (up to about 20 dB at 20,000 Hz) used during recording are possible only because the higher musical harmonics are normally much weaker than the middle and low frequencies. However, there are circumstances in which this isn't so, and therefore the amount of permissible treble boost is limited. For example, it is possible to run into trouble when recording, say, a women's chorus, cymbals, or electronic music. In such cases the high frequencies are *not* much lower in amplitude than the rest, so that

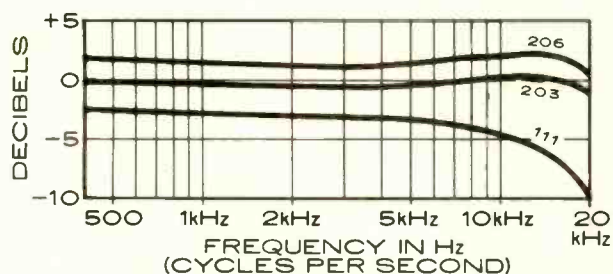


Fig. 2. At identical recording levels, different tapes provide different outputs. With the machine adjusted for 3M 203 tape, 111 tape has somewhat less overall output on playback, while 206 tape plays back with significantly more output.

giving them a large boost in the record-equalization stage can overload either the tape or the machine's electronics, thus producing distortion. The obvious cure is to turn down the record level so that the VU meters don't hit 0 VU even on the loudest passages. Though this eliminates the distortion problem, the result is a recording that plays back at a lower average level and therefore runs the risk of an unacceptable signal-to-noise ratio.

Understanding the "trade-off" relationship between distortion, extended high-frequency response, and signal-to-noise ratio makes it clear what a "better" tape means. "Better" is improved performance in one area without loss of ground in the other two areas. For example, a tape with better high-frequency response (if used with increased bias, slightly less recording treble equalization, and slightly increased recording-signal level) can reduce noise (hiss).

To illustrate this, the curves in Figure 1 show four conditions: (a) the recorder has been adjusted for optimum performance using 3M's venerable "standard reference tape," Type 111; (b) the recorder has been readjusted for the requirements of one of that company's first (1962) "low-noise" tapes, Type 203; (c) the same "low-noise" tape with the machine set for "standard"; and (d) Type 111 used with "low-noise" recorder settings. From these curves several conclusions can be drawn.

First, within the limits of experimental error, it is clear that *either* type of tape can provide flat (± 2 dB) frequency response from 20 to 20,000 Hz if the machine has the potential to reproduce all these frequencies at the outset and is adjusted specifically for the tape in question (curves "a" and "b"). Since the low-frequency response of both tapes was identical, only frequencies above 400 Hz are shown in Figure 1.

(Continued overleaf)

Second, when both tapes are recorded with "standard" settings, the "low-noise" tape produces slightly *less* overall output for a given recording input signal. This can be offset, however, by the fact that, for a given distortion level, one can correspondingly raise the recording level when using the "low-noise" formulation—which is to say that if your recorder is adjusted for a standard tape and you buy the low-noise variety, you will be able to run the VU meters a couple of decibels above 0 VU and obtain comparable output and distortion levels.

Third, the rising high-end response of the low-noise tape when used with the "standard" machine adjustments (curve "c" again), unless compensated for somehow, would cause the sound to be over-bright. Other than having adjusted the machine for low-noise tape in the first place, the best way to deal with this rising high end is to turn down the treble control on the amplifier. With that one simple step the correct musical balance would not only be restored, but the hiss level would be lowered also. All this should help make it clear that, in the table of comparative test results, all else being equal, the tapes with the most elevated frequency response at the high end of the spectrum are *potentially* the quietest.

Finally, curve "d" in Figure 1 shows what happens to a "standard" tape when it is used on a recorder adjusted for a "low-noise" type. It is obviously over-biased, with the results that the output level is lower (compare curve "a") and the high-frequency response is severely impaired. Clearly, then, if the owner's manual for a recorder indicates that it has been adjusted for a "low-noise" tape, one should *not* use a "standard" formulation if the highest-fidelity recording is desired.

LAATEST on the market today are the "low-noise/high-output" tapes. Starting with the same basic bias, equalization, and record-level requirements as conventional low-noise tapes, they provide, as Figure 2 graphically shows, a significantly higher output for the same level of input signal. If you have a recorder that permits off-the-tape monitoring, you can verify this by setting your machine so that a conventional low-noise tape produces the same volume in "source" and "monitor" positions. Then put on one of the newer low-noise/high-output tapes and compare again. The playback volume will be significantly higher, which means, of course, that for a given listening level it will be possible to turn down the playback control, thus lowering the hiss level as well.

There is another advantage in the premium low-noise/high-output tapes. Many of today's home

recordists use the slower 3³/₄-ips tape speed—obviously in the interest of tape economy. Audiophile recorders almost universally specify a 2 to 3 dB better signal-to-noise ratio at the 7¹/₂-ips speed than at 3³/₄. This is because the higher the speed, the greater the signal output from the tape. But if a recorder is set up for a low-noise tape to begin with, Figure 2 shows that low-noise/high-output tapes, with their higher output, will give about the same S/N ratio at 3³/₄ ips as regular low-noise tapes do at 7¹/₂.

Two of the tapes included in the present tests (3M 206 and Capitol 2) incorporated a new "back-treatment" process that is, I think, an indication of things to come. The back treatment involved in these cases consists of applying a roughening substance to the non-oxide surface of the tape, thus providing more grip for the drive mechanism and, in addition, making for a smoother wind at high speeds. I hope this addition becomes standard practice in the industry.

As for the tests themselves, the results appear in the accompanying table, together with annotations explaining the significance of the data. It should be mentioned also that the tapes were tested on a Crown International SX-822 recorder and measured with a General Radio Company Model 1523 graphic level recorder and plug-in sweep oscillator; my thanks go to both these companies for their generosity in lending the equipment. Finally, some slight amplification of a few points is in order to help the tape user assess and make use of the data supplied in the table.

The experienced recordist knows that record-level indicators on tape machines are calibrated differently by different manufacturers, quite aside from the requirements of the manufacturer's "recommended" tape. With high-quality machines, their usual "rule of thumb" is to set the VU meter to read 0 VU at a level 6 to 8 dB less than that which produces 3 per cent THD (total harmonic distortion) of a mid-frequency test signal. (This allows for the fact that VU meter needles have a mechanical inertia that prevents their following peak signal levels accurately.) This was the procedure I followed, using 3M 203 tape as a typical example of today's low-noise types.

In the table, the column headed *Signal-to-noise ratio* contains figures computed mathematically from the measured data of the previous three columns. The procedure for each tape was to take the output level for a 0-VU recording level (column two) and add to it the additional recording level the tape will take before reaching 3 per cent distortion (column three). The resulting figure is the *theoreti-*

All measurements are in decibels (dB)	Bias noise (weighted)	Output with 0-VU input	Input for 3% THD at output	Signal-to-noise ratio	Frequency response					
					3 kHz	5 kHz	7 kHz	10 kHz	12 kHz	15 kHz
Low-Noise Tapes										
Ampex 344	-62.9	+0.5	+8.9	72.3	-1	-0.9	-0.4	-0.3	0	+0.2
Audiotape Formula 15	-61.5	-0.7	+7.7	68.5	+0.2	+0.6	+1.1	+1.5	+2	+2.1
BASF LP35 LH	-62.9	-0.1	+10.4	73.2	0	+0.4	+0.6	+1.5	+1.7	+2
Irish 274	-62.7	+0.6	+8.9	72.2	-0.8	-0.7	-0.6	-0.3	+0.1	+0.4
3M (Scotch) 203	-63.8	0	+8	71.8	-0.7	-0.4	-0.1	+0.1	+0.2	0
Maxell LNE35-7	-62.7	+0.3	+9	72	-0.1	+0.4	+1	+1.7	+1.9	+2.5
Memorex 1800	-60.1	+0.4	+9.7	70.2	+0.2	+1.1	+1.7	+2.3	+2.7	+2.5
Realistic Supertape	-59.7	-1	+8.1	66.8	0	+0.2	+0.7	+0.9	+0.9	+0.6
Soundcraft GTA-12	-57.5	-4.6	+14.2	67.1	+0.7	+2.1	+3	+3.7	+4.9	+5.2
Wabash Primus 2	-62	-2.3	+10.2	69.9	+0.2	+1.2	+1.9	+2.4	+2.7	+2.9
Low-Noise/High-Output Tapes										
Capitol 2	-60.4	+2.5	+9.2	72.1	-0.5	-0.2	0	+0.1	+0.2	+0.1
3M (Scotch) 206	-62	+2	+9.6	73.6	-0.6	-0.5	-0.3	+0.2	+0.3	+0.3
Maxell UD35-7	-62.4	+1.2	+11	74.6	-0.1	+0.2	+0.9	+1.8	+2.3	+2.8
Sony SLH-180	-61.7	+1.4	+9.4	72.5	0	+0.6	+1	+1.7	+2.2	+2.3
TDK SD 150H-7	-61.2	+2.2	+10.6	74	-0.2	0	+1	+1.5	+1.6	+2.7
Wabash Primus Master	-60.3	0	+9.7	70	+0.2	+0.7	+1.3	+1.6	+1.9	+1.9

INTERPRETING THE CHART

THE tapes were tested with the recorder's bias and equalization adjusted to obtain the flattest possible response with the 3M Type 203 "reference tape" (see Fig. 1, curve "b"). A recording level 8 dB below that which produced 3 per cent total harmonic distortion (THD) at 400 Hz with the 3M tape was chosen as the "0-VU" input signal. Each tape tested was carefully bulk-erased; all measurements were made near the center of the reel.

● **Bias noise.** This is the noise that results during playback after the tape has been run through the machine in the record mode but with no input signal being fed to the record head. The figures reflect each tape's response to the noise introduced by the bias signal and the recorder electronics during the record-playback process. The higher the negative figure, the quieter the tape. The measurements were made with a filter conforming to the extended ASA "A" curve, which places greatest emphasis on those noise frequencies likeliest to be audible.

● **Output with 0-VU input.** These figures indicate the playback levels obtained from each tape after recording with the same "0 VU," 400-Hz input signal, and are therefore a relative measure of each tape's sensitivity at that frequency, compared with that of the reference tape (0 dB).

● **Input for 3% THD at Output.** These figures are the recording levels above 0 VU (for a 400-Hz signal) each tape will tolerate before reaching 3 per cent total harmonic distortion (THD) on playback. The higher the figure, the higher the recording level the tape can take before overload distortion (magnetic saturation) occurs.

● **Signal-to-noise ratio.** As described in the text, these figures were computed from the data of the previous three columns. First the recording level for 3 per cent distortion for each tape was combined with its output for a 0-VU recording level to determine the tape's maximum output level at 3 per cent distortion. This output level was then compared with the weighted bias-noise figure to yield the signal-to-noise ratio at close to the maximum permissible recording level. A high ratio theoretically indicates a tape with superior performance.

● **Frequency response.** The figures given for six frequencies from 3,000 to 15,000 Hz show each tape's departure from flat frequency response when recorded and played back on the test machine adjusted for the reference tape. The 0-dB point for each tape is its output at 400 Hz. In general, a rising high-frequency response indicates a tape with a potentially better signal-to-noise ratio at the higher frequencies. Since the low-frequency responses of all the tapes were virtually identical, no figures for frequencies below 3,000 Hz are given. The recording level for the frequency-response measurements was the standard -20 dB.

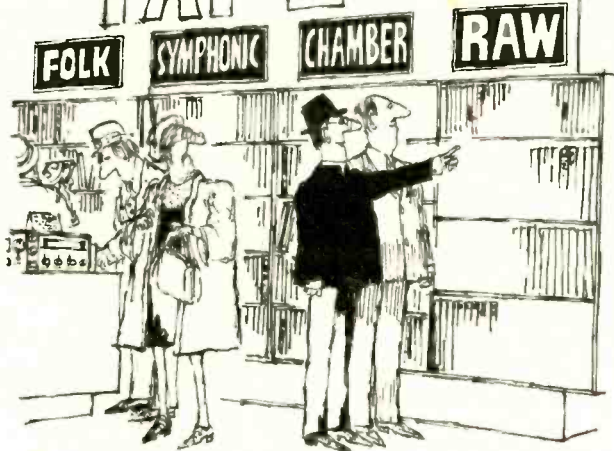
cal maximum output level of which the tape is capable at 400 Hz with the specified distortion. Subtracting the weighted bias noise (column one) then gives a maximum signal-to-noise ratio for each tape, which is the figure listed in the fourth column. Though the results obtained from this calculation may not always agree completely with an actual measurement, they should be close enough to give a reliable indication of the tapes' relative performance capabilities.

Today's tapes are certainly better than their predecessors, and tomorrow's will be better still. Reel-to-reel tape is the backbone of all music recording, and though it has come a long way from the days of paper tape coated with so-called "barn paint," there is still room for improvements. Some of them may already be at hand: there are several new tape formulations that may become available just about the time you are reading this. Unfortunately, they were not available in time for inclusion in this report.

GRAND OPENING

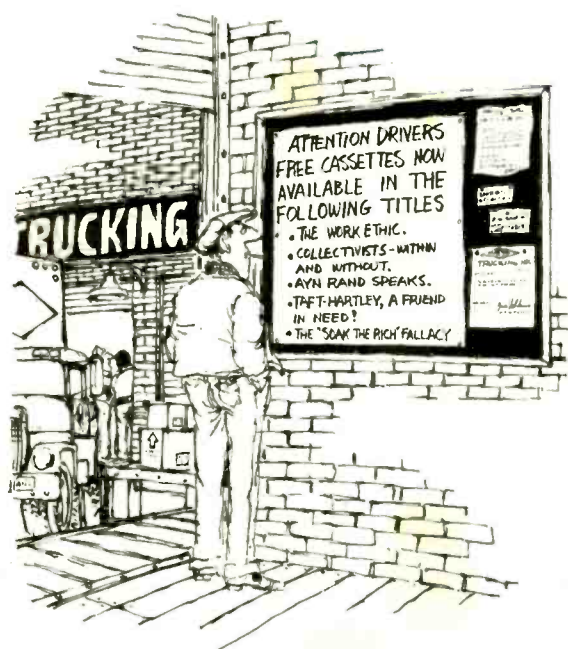


TAPE





Rodriguez ON TAPE





The hysteresis loop displayed on the oscilloscope simultaneously shows the magnetic force needed to magnetize a given tape as well as the amount of magnetism it will retain once magnetized. These properties are important indicators of tape performance.

How Recording Tape Is Made

Materials composition, handling, and manufacturing methods are all critical elements in "building" tape performance

By JOSEPH KEMPLER

THE WORLD today is fairly bursting at the seams with recording tape. Many of our normal business, social, and entertainment activities would grind to a halt without it. At least three different tape formats are currently in use for entertainment purposes alone, and each of these has its own particular areas of special competence. Little wonder, then, that all this activity has resulted in a proliferation of special-purpose tape types manufactured to do a particular job particularly well.

The types of audio tapes available to the home user go by such names as general purpose, low noise, low print, high-output/low-noise, and so on. Within each of these categories there is also likely to be a variety of thicknesses, lengths, and base materials available. Recently, moreover, some tapes have appeared that employ special coatings on their *non-oxide* surfaces that are designed to improve mechanical handling or storage characteristics. And, finally, there are the various types of tape used in cassettes, eight-track cartridges, and in open-reel machines, some of them specially treated to perform optimally in their special formats.

Despite the profusion of products, all tape types do resemble each other superficially, if one ignores occasional differences in color, surface shininess, or the use of a back coating. But these are physical qualities, not electromagnetic ones, and similar appearance does not necessarily mean similar performance. An examination of some of these common factors, however, as well as some of the differences, is helpful in understanding what makes one tape superior to another for a given recording task.

All magnetic tapes consist of a *coating*, or emulsion, permanently bonded to a *plastic film*, or base. The coating contains the magnetic material, the "active" ingredient that makes recording and reproduction possible. The base film, which determines the mechanical properties of the tape, acts as the physical support for the coating. Open-reel tapes are always wound with the coated side facing the hub. In cassettes and eight-track cartridges, the reverse is true—the coating faces out because of the tape-path arrangements in these formats.

In most cases, it is easy to distinguish the shiny base side from the relatively dull coated side. However, many modern tapes (particularly cassette tapes) have a polished coating that is nearly as shiny as the base. And recent developments, such as the use of dull black conductive back coatings applied to the base of the tape, have further confused the issue. This back coating helps in several ways: it eliminates static electricity, it affords the capstan and pinch roller a better grip, and it allows the tape to hold its "pack" better on its hub or reel. But un-

less care is exercised, the question of "dull" or "shiny" can sometimes lead to confusion; the shinier side may well be the side to record on.

The color of the magnetic coating has been undergoing some changes as well. The usual oxide-coating color is brown, because this is the normal color of the iron oxide used in the majority of tapes. Chromium dioxide, however, is a black powder—but that is not to say that *all* black tapes are made with chromium dioxide. Many iron-oxide tapes are black, too, or at least dark grey, because of black carbon particles added to reduce electrostatic-charge buildup on the tape (such charges can cause noise, and sometimes even jamming in cassettes). Widespread opinion to the contrary, the color of the coating has no necessary bearing on the tape's performance in the electromagnetic area.

The Base Material

The film that serves as the base for the magnetic coating is in most cases either cellulose acetate (often called just "acetate") or polyester (the most well-known brand being Du Pont's Mylar). The buyer can tell them apart by simple inspection: acetate is translucent and polyester is opaque when a reel is looked at edgewise against a bright light.

A good base material must be strong enough for its intended use; it must also be flexible, smooth, and dimensionally stable. Both acetate and polyester have proved themselves capable of meeting these specifications, but polyester is the better of the two, especially if it is to be used or stored under extreme or varying conditions of temperature or humidity. It is significantly stronger than acetate and chemically more stable (acetate, because of the slow loss of its plasticizer, becomes subject to brittleness and cracking with age). Further, tapes expand or contract on their reels under the effects of changing temperature and humidity, and these dimensional changes generate stresses within the tape pack that can cause a number of physical problems, among them radial deformation ("spoking"), curled edges, or "cupping." Tapes wound unevenly or at too high a tension are particularly vulnerable to such deformations, and although polyester and acetate can both be affected, the changes in polyester are much less severe.

Acetate-base tape does have two important advantages, however, and they have made it popular even in professional recording studios: it costs less than polyester, and it breaks cleanly when accidentally snapped, with little or no stretch at the point of the break. Polyester, on the other hand, stretches as much as 100 per cent or more before breaking, of-

USUAL APPLICATIONS OF TAPE-BASE MATERIALS

<i>Material and thickness</i>	<i>Major applications</i>
1.5-mil acetate	Reel-to-reel, standard play
1.5-mil polyester	Reel-to-reel, standard play
1.0-mil polyester	Reel-to-reel, long play; and cartridge tape
0.5-mil polyester	Reel-to-reel, double play
0.5-mil T-polyester	Reel-to-reel, double and triple play; also cassettes up to 60 minutes
0.3-mil T-polyester	90-minute cassettes
0.25-mil T-polyester	120-minute cassettes

ten making it impossible to repair a recorded tape without losing critical material. To combat this shortcoming, polyester-base tape is made available in "tensilized" form, or T-polyester. Tensilizing is a prestretching process that increases both the break strength and the stretch resistance by a factor of nearly two. Long-playing cassettes with very thin tapes were made possible only through the use of T-polyester.

The Magnetic Coating

The tape's magnetic coating consists of several ingredients that are carefully—uniformly—mixed and dispersed for maximum homogeneity in the finished product. A good coating must meet all the many physical and electromagnetic requirements for its intended use. Since some of these requirements may be conflicting, best results often depend on a number of carefully chosen design compromises. For instance, the coating must be physically tough and durable to resist wear—but at the same time it must *not* be abrasive to the tape heads. It must also be dense and scratch-resistant, but not brittle or stiff, for these characteristics would eventually lead to edge damage and momentary signal loss (dropouts).

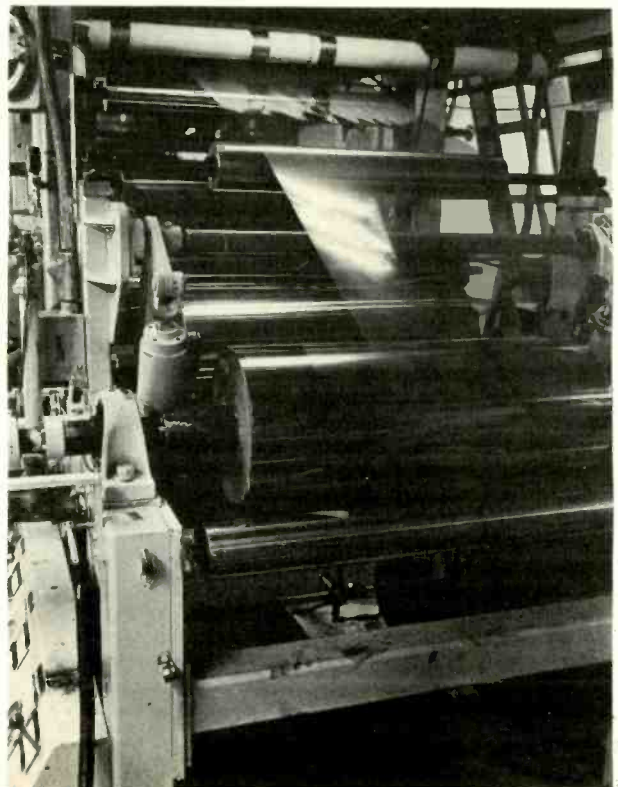
The basic ingredients of a typical magnetic tape coating are the magnetic material, the binder, and various additives (plasticizers, lubricants, *etc.*). The key ingredient is, of course, the material that makes the tape magnetic. In most tapes, this ingredient is iron oxide, but other materials such as chromium dioxide and "cobalt-doped" iron oxides have been introduced for use in cassette tapes. Since these materials, in the view of some manufacturers, have certain shortcomings in addition to having magnetic properties that can benefit performance, they are now being challenged by the newest iron-oxide formulations. These latest tapes, whose improved qualities derive from better oxides and novel processing, have the additional advantage that they do

not require special bias or equalization settings.

The typical oxide particle used for magnetic recording, whether of iron or some other substance, is a tiny needle-shaped crystal approximately six times as long as it is wide. The particles come in various sizes, but the length-to-diameter ratio remains substantially the same. So-called "standard" tapes use a relatively "large" particle about 25 millionths of an inch long by 4 millionths of an inch thick. The oxide particles used for low-noise tapes are several times smaller, the size reduction being responsible for the lower tape hiss. High-output/low-noise tapes may use still other iron oxides that, in addition to being smaller, are smoother, more uniform, and therefore capable of being more densely packed in the coating. The needle shape of these oxide particles makes them magnetically anisotropic, which is to say that they have different magnetic properties in different directions. Anisotropic oxide particles are much easier to magnetize and harder to demagnetize (important features of a good tape) in the long direction than in the short.

To take advantage of anisotropy, the oxide particles are physically rotated when the tape coating is still wet so that their long dimensions line up with the length of the tape. As a result, the tape has better magnetic properties in the direction that the record and play heads are effective—*i.e.*, along the tape length. Once the tape coating is dry, of course, the particles are fixed in place by the binder and cannot move around. They can, however, be magnetized in either of two directions or polarities, in accordance with the polarity of the external mag-

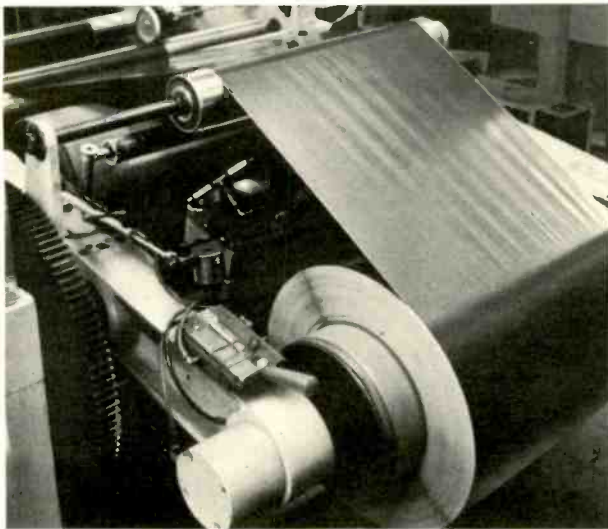
At the input end of the coating machine, a "web" of base material (clear acetate film in this case) is fed from the jumbo rolls and then carried at high speed to the "slurry" applying section.





Above is but a small part of one of the giant coating machines: in this section the film is fed into the machine, coated, and exposed to a magnetic field to orient the iron-oxide particles.

Coating, orientation, and drying processes complete, the tape is wound onto large-diameter cores at the output of the coating machine. Slitting will later cut the tape to the right width.



netic field applied by the recording head. The word "permanent," as used in connection with these tiny magnets, implies a resistance to change. Indeed, the particles do resist a change in their magnetic state: a minimum magnetic force (*coercive force*) is required to overcome this resistance. The amount of coercive force, expressed in *oersteds*, is therefore one of the important specifications for a magnetic oxide—and for a type of tape, too, for that matter. Specifically, it is the minimum magnetic force which must be applied to the tape by the recording head before a recording is made. The same coercive force is required to erase a recording already made, since this also involves a change in the magnetic state of the tiny particles. A high-coercive-force tape such as chromium dioxide requires more magnetic energy to record and erase than a tape with a lower coercive force.

A second significant property of any permanent

magnet is its ability to "store" magnetism. The quantity of magnetism which a tape can "take" and retain is called its *magnetic induction*, and the unit of measure is the *gauss*. It is obvious that the higher the induction the better, since the induction determines the amount of output signal a tape can produce in the playback head.

The Binder and Other Additives

Next comes the binder, the coating substance that fixes the oxide to the plastic base. Ideally, the binder also maintains an optimum separation between the individual oxide particles by providing a spacing coating surrounding each particle. Particles which are not properly separated will partially cancel each other's magnetic energy and thus reduce the tape's potential output.

The basic binder materials are various compositions of plastic resins. All the important physical properties of the coating—resistance to wear, friction, loss of oxide, and many others—are determined by the binder. Of the total coating volume, the oxide particles occupy only about 30 to 40 per cent. If, in an effort to achieve a greater signal output, more oxide is put in, a weaker cohesion of the coating could result. It is quite a technical feat to "build" a high-output/low-noise tape with superior recording performance without sacrificing some of the tape's desirable physical properties.

Depending on the use for which the tape is intended, the basic binder materials may be supplemented by additives which change or improve certain properties that affect physical performance. For example, some binders are rather stiff, especially when the coating is thick, and plasticizers added to the binder will give the coatings a necessary flexibility. Different lubricants (there are many effective ones beyond the much-publicized silicone) may also be added to reduce friction between the tape, the heads, and the tape guides, and even between layers of tape in eight-track cartridges. And, of course, not every tape needs a lubricant; some use a low-friction binder that obviates the use of an additional ingredient.

Since tapes are composed principally of plastic, they are electrical non-conductors and therefore susceptible to the buildup of electrostatic charges. These charges attract dropout-producing dust; they may also produce popping noises during use, and even cause jamming in cassettes. To prevent this, electrically conductive agents such as carbon powder may be added to the binder to prevent the buildup of electrostatic charges. A superior method of increasing a tape's conductivity is to use the carbon

in a backcoating rather than in the binder. This not only eliminates static much more efficiently, but also improves the mechanical performance of the tape. Furthermore, the removal of the carbon from the coating leaves more room for oxide, thus raising the output level.

There are many other binder additives such as wetting agents, stabilizers, fungicides, *etc.*, and each performs a specific function. A well-designed tape, however, will have as few additives as possible, for each additional ingredient must be integrated into the coating without displaying any short- or long-term tendency to migrate or undergo other undesirable changes.

The Manufacturing Process

Combining all the elements that make up a quality finished tape requires strict control of materials and procedures throughout the manufacturing processes. Each step must be right the first time or the tape will be defective. There is no opportunity for later adjustment or correction. Quality control begins with the first inspection of the incoming raw materials. Since all materials have *some* minor variations in either physical or chemical properties, the inspection must determine which materials fall within the established tolerances. The oxide material, for instance, is tested for its magnetic properties using such sophisticated equipment as vibrating sample magnetometers and hysteresis-loop tracers. Electron microscopes are employed to examine the particles visually under a magnification of many thousands of diameters. Properties such as particle size, size distribution, and imperfections can then be readily observed.

All manufacturing-process chemicals and solvents undergo chemical analysis with such equipment as gas chromatographs, infrared spectrometers, and other instruments which analyze their composition in minute detail, detecting the smallest trace of impurity. Even base film is examined for thickness uniformity, cleanliness, physical stresses, *etc.* Base materials also require special ambient conditioning before use to assure that they are "relaxed," wrinkle-free, and without contaminants.

Much effort and expense is devoted to all these preliminaries, since no chances can be taken by a supplier of first-class tape. Critical users rightly expect that not only will the product be good, but that it will be *consistently* good, reel after reel, over the years.

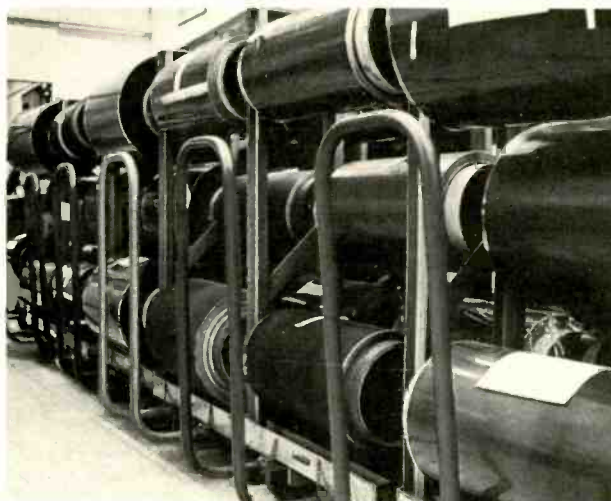
The first manufacturing step is the milling—the mixing/interdispersing of all the coating ingredients. The most familiar type of machine used in this step

is the ball mill, a large rotating drum partly filled with small steel balls. (Perhaps needless to say, in this as in other areas of tape manufacture, different companies have developed their own techniques and hardware.) The various ingredients are loaded into the mill and a solvent for the plastic binder material is added. The entire composition is then thoroughly mixed by the mill until it is homogeneously uniform and smooth. The ultimate purpose of the process is to have each oxide particle wetted, coated with binder, and isolated from its neighbors. When the milling is finished, the result is a thickish liquid, of paint-like consistency, called *slurry*.

Milling is an extremely critical operation because either too little or too much is harmful to the quality of the finished slurry. Insufficient milling may result in undispersed groups of oxide particles which cause hiss, noise bursts, lower output, poor amplitude uniformity, and coating weak spots which will eventually turn into dropouts. On the other hand, overmilling breaks the particles down to too small a size, causing loss of high frequencies, increase in print-through, and other problems. Milling time can range from several minutes duration all the way up to two weeks. Magnetic and physical tests are performed on the liquid slurry to determine the precise end point of the milling process for a desired result.

After filtering and several other conditioning steps, the slurry is fed to the coater, a giant machine that resembles a rotary printing press. The minimum number of separate processing stages built into the coater machine are called the take off, the coating zone, orientation, drying, and the take up—the taking off and on referring, of course, to reeling the raw base material off and then, when coated, onto a spool, and orientation having to do with the

Storage in the "bank" is an interlude in the high-speed manufacturing process. Many different tape types are here being aged on their jumbo rolls before being slit and, finally, packaged.

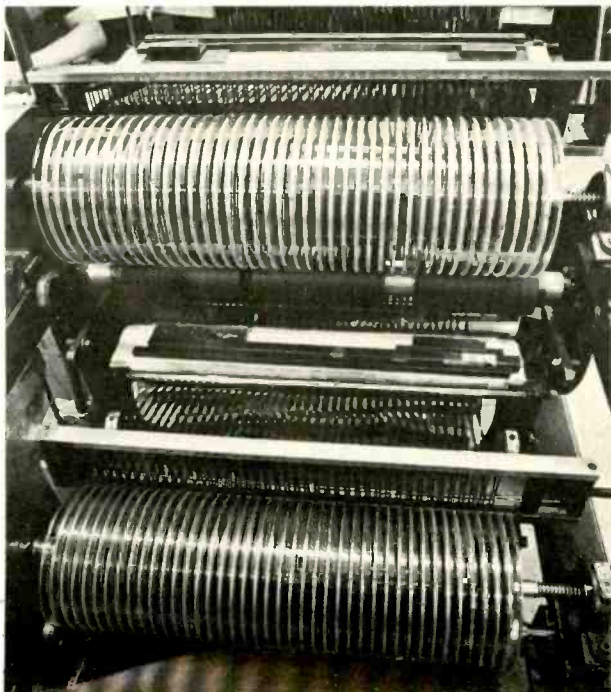


magnetic aspect of the coating. Some coaters perform more individual functions, but these five operations are essential to even the simplest machine.

A typical high-speed coating process begins with a large roll of base film, 15,000 feet (or more) long and several feet wide, which is loaded on the input side of the machine. The film is threaded through the entire complex of continuous operations in the coater, the whole is started up, and in due time the coated film issues from the take-up end, many hundreds of feet away from the start. The process is designed to be continuous to the degree that there is even a method of supplying new rolls of base film automatically as the previous rolls are used up.

The base film goes first through a base treatment and conditioning section until the coating zone is reached, at which point the slurry is applied in a precise and uniform thickness. Many coating methods are used. One of them resembles, in principle, the spreading of soft butter on bread with a huge knife. Another could be likened to the operation of a precision paint roller, and a third imitates the inking roller used in printing magazines such as the one you are now reading. And there are perhaps a dozen other methods capable of doing the job right. The coating thickness on typical consumer tapes ranges from 70 to 650 microinches; some backcoatings are as thin as 20 microinches (compare with the 4,000-microinch thickness of a dollar bill). During the coating operation, thickness uniformity is monitored and controlled continuously by measuring the coating's absorption of either X-rays or of a radioactive source. This control is vital because variations in thickness will cause corresponding variations in low-frequency output; it can also change optimum operating points for bias

The slitting operation reduces the wide rolls of coated film to the form the consumer knows. This slitter is producing 1/4-inch-wide tape and winding it directly onto the 7-inch plastic reels.



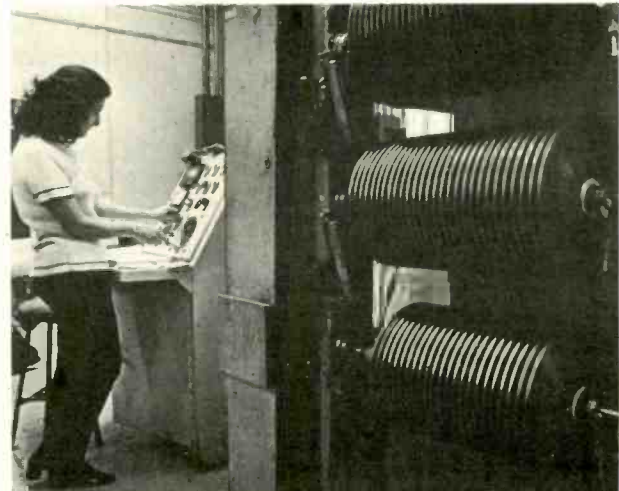
or recording level, disturb amplitude stability, and generate other havoc. Thin coatings make particularly strenuous demands on the coating equipment. A cassette tape, for instance, with an average coating thickness of 200 microinches, may require a thickness control of ± 5 microinches to maintain a ± 2.5 per cent thickness tolerance.

A good coating requires more than thickness uniformity. It must also be extremely smooth, completely free of streaks, voids, or even microscopic blemishes. Perfection of this kind is costly and difficult to achieve. It is not always necessary for home recording, but it is of paramount importance in computer tapes and in recording-studio mastering tapes. The tape manufacturers who successfully produce such tapes naturally have the capability of achieving the desired degree of perfection for the home user as well.

After coating, the oxide particles in the slurry are oriented by passing the already coated base, still wet, through a powerful electromagnetic field that lines the particles up parallel to the long dimension of the tape. Then the tape moves into the drying tunnel, where heated air evaporates the solvent from the coating at a carefully controlled rate. Drying which is too fast can cause some solvents to evaporate too rapidly, leaving the coating with pits and pinholes that cause noise and dropouts. Conversely, an incompletely dried tape may stick to itself or gum up the recorder's heads. Both of these problems can occur if temperature, air volume, and air velocity are not closely adjusted for the specific tape being manufactured.

The coated tape coming out of the drying tunnel—it is still in the form of a sheet of film several feet wide—is wound with carefully controlled ten-

Another slitting machine winds large 14-inch "pancakes" of tape. The dubbing machines used in the preparation of "prerecorded" tapes are designed to accept their tape input in this odd format.



sion onto large-diameter cores to make up jumbo rolls. The large cores reduce the number of layers in the rolls and thus minimize stresses in the tape. When good high-frequency response is an important requirement, quality tape may undergo polishing of its freshly coated surface. Intimate contact with the heads is necessary if high-frequency losses are to be avoided. For example, if a 10,000-Hz signal is recorded on a cassette tape running at $1\frac{7}{8}$ ips, at 6-dB output loss will take place if there is only a 10-microinch gap between tape and head. Any roughness of the tape coating will tend to cause such gaps, since only the high points on the surface will come into contact with the heads.

The polishing treatment is accomplished in several ways. Brushing, burnishing, and even rubbing tape surfaces against each other have all been used with reasonably good results. In one popular method, the tape is passed between two or more highly polished heated rollers that exert a very high pressure on the tape. A mirror-like smoothness is obtainable with this technique. (Obvious differences in the visual shininess of two coatings can sometimes indicate the one with the better high-frequency performance, but the method is not foolproof, since there are many other invisible factors which can also influence high-frequency response.)

Slitting the wide rolls of tape to the widths in which they will be used is the final manufacturing step. Cassette tapes have a width of 0.149 inch; all other audio tapes for home use are slit to the $\frac{1}{4}$ -inch width—more precisely, 0.248 inch. Slitting is done by rotary cutters running at high speeds. In most cases, the entire roll width is slit simultaneously. But, despite the mass-production nature of the process, slitting has to be a precision operation because of the critical demands that will be made of the end product. First, tape width must be very accurate—the width tolerance on a cassette tape is ± 1 mil, for instance. Tape which is too wide will stick in the recorder guides and suffer edge damage through folding or scraping; tape which is too narrow may weave as it passes through the tape transport. Second, finished tape must not exhibit skew or “snakiness,” which occurs if the tape is not slit in a perfectly straight line, for it causes the tape to move past the heads at a constantly changing angle with respect to the head gap and creates a continuously varying azimuth misadjustment with resultant variations in high-frequency output. And finally, the slit edges must be cut cleanly. A poorly slit edge will generate dirt and dropouts and affect the sound quality on the track closest to the edge. On the other hand, it should be noted that the edges can never be as smooth as the coating, and a slight pol-

ishing action consequently takes place as the tape edges rub against the guides and reel flanges. The material thus rubbed off the edges is frequently deposited on rubber pinch rollers or even on the heads, appearing as two thin lines of oxide just a tape-width apart. This occurrence is not abnormal *providing it is not excessive*, and is one of the reasons periodic recorder cleaning is necessary.

Such things as the application of back-coatings, attaching of leaders and auto-reverse switching foils, preparation of tape for loading into cartridges and cassettes, and more are manufacturing steps that may or may not be performed, depending on the tape's ultimate application. Most open-reel tapes, at least, are completed at slitting, at which time they are tested, wound on reels, demagnetized, and packaged for shipment.

Quality Control

Laboratory quality-control tests of the finished products are carefully performed using various procedures. For example, the important quality of surface smoothness could be evaluated by eye or by running a frequency-response test. To secure *quantitative* measures, however, a precision surface analyzer is used that produces a chart of the actual physical profile of the tape—with a sensitivity of 1 microinch!

The basic quality-control tests performed are:

1. *Physical*—dimensions, strength, smoothness, life, head wear, temperature-humidity stability, etc.
2. *Magnetic*—coercive force, induction, and other purely magnetic properties.
3. *Recording performance*—bias characteristics, frequency response at various speeds, distortion, uniformity, noise, dropouts, print-through, and others.

Quality control may even extend to checking boxed tape after it has arrived for warehousing or on dealers' shelves. Tapes are examined critically from the customer's point of view: cartons of tape may be shipped back and forth across the country by various means, for example, to see how well the tape and its packaging stand up under typical shipping and storage conditions.

As might be gathered from the foregoing discussion, it takes a great deal of effort, much experience, and extensive manufacturing and testing facilities to produce a tape that does all the things it should do, reliably and consistently, reel after reel, year after year. But it is all in a good cause: better and better tape recordings!

Joseph Kempler, who is a specialist in the design and manufacture of magnetic recording tape, is Manager of Advanced Technology for Audio Devices, Inc., a subsidiary of Capitol Industries, Inc.



Jack Whittemore

STAN GETZ

"The kids should have their own thing...
But jazz is 'grow-up' music."

By JOEL VANCE

I MET Stan Getz on a sunny Monday afternoon; we were to have lunch at an open-air café. Getz is about five feet nine and has an easy smile and a lot of enthusiasm. He wore a blue pullover shirt, with his initials (small, in yellow thread) over the left breast, and white pants. He moves with bounce and eagerness and could easily be taken for something other than what he is. He could be a very successful insurance salesman, for example, or the public-relations man at a medium-size manufacturing firm, or a counterman at your corner luncheonette. But he happens to be one of the best tenor-sax jazzmen alive—if not *the* best. There are very few musicians of any kind who have such total control of their instrument that it becomes almost literally their speaking voice, with all the nuances and intensities the human voice is capable of but seldom uses. Getz is a musician whose horn is his voice.

He is basically a melodist. His style is clean and smooth, and though he is capable of great subtlety, there is nothing furtive about his work. It is almost as direct in impact as someone saying "Hiya!" He is willing, in other words, to share his emotional secrets, unlike many jazz musicians who dare you to find them—and hint at punishment if you do.

When I met Getz he was holding under his arm a package that could only contain a record. It was an acetate "reference recording" of an album he has recently completed for Verve. Chick Corea, who wrote all the material, is on piano, Stanley Clarke on bass, Tony Williams on drums, and Airtio Moreira on percussion. "I really like this album," he said. "It never droops in interest—and that's unusual for a jazz record, right? There's always a point where things slow down. But not here. A guy will take a short chorus or a long one, but it's always up, it never drops. Come back to the office"—the office of his press agent, who was also with us—"after lunch and hear some."

After we had sat down at a table and a waitress had taken our orders, Getz talked about his appearance at the 1972 Newport Jazz Festival in New York with his regular group: Dave Holland on bass, Hal Golper on piano, and a youngster drummer, Jeff Williams, whom Getz describes as "a beautiful, very talented kid." The group was deep into a number when suddenly there was the unexpected sound of an added conga drum. "It was throwing us off. I looked around and saw this huge guy. Afterwards I went over to Dizzy [Gillespie] and I said, 'Who is that guy?' and Dizzy said, 'Big Black.' I said, 'I know that, but who is he?' Then George Wein [the promoter of the Festival] goes over to Big Black and says, 'I didn't hire you for anything,' and Big Black says, 'I know, man, but I'll play for free. I need the exposure!' Great musician story, right?"

Over a melon with strawberries and yogurt on the side (his) and some kind of hero sandwich and a grapefruit Tom Collins (mine), I asked why he thought jazz was so big in Europe. Was it because Europeans don't have a contemporary music of their own?

"Oh, that's one reason. But I think they're anxious to know about other cultures. Jazz is American music; you have to be American to *know* it. They're very nice and they like it a lot, but sometimes you see them do things or say things and you know they really don't *know*. But all over the world, people are interested in other cultures. That's healthy."

Why was jazz out in the cold for so long?

"It's a generation thing. Jazz was going along well and then in the Thirties it ran into 'Swing.' There were some good musicians and some good bands, but it turned into a bobby-soxer and jitterbug thing. The same with rock-and-roll. The kids wanted something of their own, something they could identify with, and chose the simplest, dumbest thing they could. I don't like rock-and-roll. I do like Chicago and—what's that other one?—Blood, Sweat &

Tears. I'd even like to do some work with Chicago. Mainly it's that for a long time jazz has taken a back seat to simpler music. I'm a perfectionist. Most jazz musicians are, because you have to be. Jazz isn't a simple music. Jazz has been kicked around a lot, but it hasn't been knocked out. It'll never be knocked out. I think it's coming back now. I think there's a lot more excitement about it since the Festival. I see a lot happening here now."

At this point, Getz's press agent began reading aloud a newspaper review of Stan's Festival appearance in a deferential drone. Stan, embarrassed, changed the topic of conversation to other saxophonists.

"I always loved Sonny Rollins."

"What," said the press agent, "about Coltrane?"

Getz twisted the corner of the envelope that held the acetate.

"It's funny, you know. It took me a long time to get into Coltrane. I always *liked* him, but Sonny always did something special for me. Then I began to listen hard to Coltrane." Getz shook his head admiringly. "He sure was a genius."

"So," said Getz's press agent, with a confident smile, "you like Coltrane better now than Sonny?"

Getz smiled a smile straight from *Fiddler on the Roof's* Tevye and said, "No, it's not a question of that. They're both great. Now I've got *two* people who do something special for me."

"Do you think jazz is an 'art form,'" I asked him, "or do you get nervous when people start talking about it that way?"

"No, I don't think it's an art form because it's not that important."

Getz's press agent practically dropped his sandwich. "It's *not* that important?"

Getz spread his hands and drew them together as if he were pressing a beachball.

"It's still being developed," he said. "It's not *over*. It's not as important as . . . opera—is that a good example? Maybe not. Well, anyway, jazz is still being developed. It hasn't *stopped*. Now, there are guys who play so well or create so much that they're *artists*—but an *art form*, no. Say, why don't we go back to the office and you can listen to this album."

WE went back to the office and I listened. The album, to be released with the title "Captain Marvel," is truly fine. Getz's happy sax twists around and wrings out the tunes, and the tunes are damn good, particularly *La Fiesta*. The acetate, a demonstration record, was a rough stereo mix, so the balance of the instruments, which varies with individual tunes and performances, had not been finally determined, but even as a rough mix it was extremely pleasant to listen to—concentrating on one instrument for a while, then on another, you could tell how good it all was.

The telephone rang. Getz discussed with his wife an upcoming benefit performance to be given at their house in Westchester (an old Jay Gould estate) for a local boy who had been severely disabled after a fall from a tree. Getz, a contingent from the Duke Ellington band, and Dizzy Gillespie's group were scheduled to play. While he talked, I thought back across the years about his career. Getz has been *the* man on his instrument for more than twenty years. When he was eighteen he was travelling with Jack Teagarden's band. Later (not *much* later) he joined Woody Herman's Second Herd, with whom he cut

Early Autumn (one of his best recordings and one of the Herman band's, too) and did time with Stan Kenton, Jimmy Dorsey, and Benny Goodman—all before he was twenty-one. As a star in his twenties, he cut records with Dizzy Gillespie, Lionel Hampton, Ella Fitzgerald, Jimmy Smith, Cal Tjader, and Gerry Mulligan, among others, made some wildly successful tours of Europe (he lived in Denmark for three years), and came back to the United States in 1961 to record *Focus* (Verve 68412), a score for string ensemble with Getz improvising. It was greeted with critical hosannas.

The year after that he cut a bossa-nova album in a church in Washington, D.C., and that one included another of his masterworks, *Desafinado*. Creed Taylor, who produced the session, remembers that he, Getz, and guitarist Charlie Byrd "spent a very pleasant afternoon doing the session. We were walking out to the car afterwards, and Stan said, 'Do you think it will sell?' and I said, 'You never know.'" It did. The bossa-nova mini-craze that followed was brought back to aesthetic earth when Getz cut an album with João Gilberto and Antonio Carlos Jobim that included *The Girl from Ipanema*, Gilberto's wife Astrud singing the vocal at Getz's suggestion. Since the early Sixties, Getz has toured here and in Europe with a variety of small groups. He now spends about three months each year abroad, playing and recording as the occasion demands.

His has been a career of amazing variety and substance. Getz plays fine music, he has a family and a home, and he's a genuinely amiable guy. I remembered something he had said earlier, talking about rock and jazz. "The kids should have their own thing, that's fine. But jazz is 'grow-up' music. You have to grow up to it." My kind of jazzman, I thought.

Getz put down the phone as I was listening to Aírto Moreira's percussion on "Captain Marvel." I hadn't seen Aírto for a year so I asked how he was. Getz grinned.

"Fine, fine! He's so beautiful—he can beat two sticks together and destroy you."

"Is he still going with Flora?"

"Oh, yeah, they were married and—oh, she must have had the baby by this time."

"Did you hear his solo albums?"

"Yeah. All that stuff he wrote on the liner notes about how you have to love one another to play the music." Getz smiled and raised a hand and let it drop. "You don't have to love one another, you just have to love the music, that's all. Just love the music."

We listened to the acetate a little more, and then I realized I had to leave. I looked at Getz. He was facing the stereo set, listening to the acetate and grinning his wonderful grin. It suddenly occurred to me that if I were a good musician, I would be like a lot of other good musicians—I would want to be in his band, or at least have one two-a.m. jam with him that I could live off of emotionally for a couple of years.

The press agent finished up a telephone call just as I was getting Getz's address for reference. I asked for the zip code. Getz didn't know—just said his name would get mail to him.

The press agent looked up and said archly: "Stan, I didn't know you were *that* well known."

Getz put a hand on his stomach, balanced on one foot, grinned again, and said in an Oliver Hardy voice: "I'll have you know I'm very heavy in that town."

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



CLASSICAL

THE BAROQUE STYLE AS A PERFORMER'S ART

Two new discs of harpsichord music by Igor Kipnis reopen the composer/interpreter dialogue

IGOR KIPNIS, late of the Columbia Records artists' roster and still very much a Contributing Editor of *STEREO REVIEW*, is now recording for Angel, and his first two releases for that company—"The German Harpsichord" and "The French Harpsichord"—have just been released. They are, in a word, special, and as I respectfully call them to your attention let me try, as objectively as possible, to explain why.

A new Igor Kipnis record is always something of an event around my house. Obviously it is not easy to be completely objective about a colleague; my own "colleagueship" (if there is such a term) with Igor long predates our present status as co-contributors to this magazine, going back to our radio and newspaper days. In fact, our paths have diverged somewhat in recent years, though there remain several connecting threads. It might appear that there would be little more remote from the Baroque harpsichord than contemporary music theater. And yet my recent work in the latter area has taken me smack into the middle of questions of performance practice—precisely the area in which Igor has made many substantial contributions. For, in returning to the notion of Baroque music as essentially a performance style, he has, in effect—paradoxical as it may seem—renewed the dialogue between performer and composer. An active involvement in the re-

creative process—performance style, ornamentation, rhythmic interpretation, cadenzas, phrasing and articulation—is as important in eighteenth-century music (for harpsichord or otherwise) as it is in nineteenth. Indeed, the Romantics themselves, mistaken (or willful) as they often were stylistically, recognized this affinity very well. What Kipnis and others have done is to restore the expressive, interpretive role of the performer to Baroque music by a study of period style—not as a dry musicological exercise, but as an on-going interplay between texts, sources and documents, personal insight, the music itself, and the experience of performing it before receptive audiences on reasonable facsimiles of the instruments it was originally written for.

Kipnis' first two Angel records are called "German" and "French" not merely because of the nationalities of the composers involved, but because the Rutkowski and Robinette instruments used are contemporary versions of early German and French harpsichords. Thus the stylistic differences in the music—the starting point of Kipnis' realizations—are built upon the sonic characteristics of the instruments themselves. (Not surprisingly, the German instrument is designed for linear connection and clarity while the French instrument emphasizes color and contrast.) Even the tunings used are based on old French and German practice. Kipnis' approach to ornamentation and



IGOR KIPNIS
Masterly Bach realizations

realizations is particularly notable in the brilliant Rameau Suite—from the Second collection, and one of the unarguable high points of early keyboard music—and in the charming Dandrieu, both of which particularly lend themselves to this kind of treatment. With Bach, Kipnis is rightly more circumspect (Bach, who worked mostly in provincial circumstances, was not able to expect as large a creative contribution from his performers; hence he was more specific in his musical directions than most composers of the period). Nevertheless, Kipnis, who is not as well known for his Bach as he deserves to be, produces masterly realizations. It is worth mentioning the technical achievement here particularly. Kipnis has always been *musically* outstanding, but there has now been notable growth in the technical areas: firmness of control, clarity of articulated line, adroitness and flexibility at quick tempos—all, of course, put to good musical service. The Bach repertoire chosen is interesting too; the Toccatas are big sectional pieces, combining a sonata or concerto style with song-like recitatives and *ariosos*, plenty of bravura material, and some highly elaborate fugues. A whole set of them would have been worthwhile, but, at any rate, there are three good ones here.

A high level of ambient noise on the French disc was disturbing—not during the actual harpsichord playing, when it was effectively masked, but during

ANNELIESE ROTHENBERGER: *a seductive sizzle*



the pauses. As is often the case, the harpsichord is recorded at a rather high level, and I really think the best musical perspectives—not to mention noise reduction—are achieved at lower-than-normal playback settings. Otherwise, I liked the harpsichord sound and recommend both discs highly.

Eric Salzman

THE FRENCH HARPSICHORD. Rameau: *Suite in A Minor (Nouvelle Suite)*. Dandrieu: *Suite in C Major (Première Suite from Pièces de Clavecin, 1728)*. Igor Kipnis (harpsichord). ANGEL S 36054 \$5.98.

THE GERMAN HARPSICHORD. J. S. Bach: *Chromatic Fantasy and Fugue in D Minor (BWV 903)*; *Toccatas in C Minor (BWV 911), E Minor (BWV 914), and D Major (BWV 912)*; *Prelude and Fugue in A Minor (BWV 894)*. Igor Kipnis (harpsichord). ANGEL S 36055 \$5.98.

BOSKOVSKY'S *FLEDERMAUS*: NOW THE ONE TO BEAT

Viennese geniality informs the latest—and best—version of Strauss' durable operetta classic

MORE than a decade has passed since the release of the last truly memorable recorded version of Johann Strauss' operetta *Die Fledermaus* (London OSA 1319, with Karajan conducting, and including that stellar "Gala Sequence" and luxurious sonics). There have been other versions since, but none with the same impact, and the London set deservedly remained the standard by which all newcomers had to be judged.

But now we have a new version, just issued by Angel, which measures up to that standard and, for me, even surpasses it. This is a rather different *Fledermaus*, however. Whereas Karajan sought glittering precision, Angel's conductor Willi Boskovsky (longtime concertmaster of the Vienna Philharmonic) treats us to a performance that is more relaxed, more genial—in short, more *Viennese*. But geniality and jocosity are never permitted to slip into mere disorderliness—what the Viennese call *Schlamperei*. Boskovsky's tempos are flexible and well judged, the ensembles are neat, and the scenes follow one another with the utmost naturalness and an all-pervading sense of fun. It is obvious not only that this music is in Boskovsky's blood but that he knows that we know it too, and there is a glow of relaxation that results from no one's having to prove anything.



BARBRA STREISAND: *the audience is her co-star*

There are no interpolations in this version, no Gala Sequences, but each participant puts forth his or her own gala effort. Anneliese Rothenberger's Rosalinde irresistibly combines singing that is angelically pure with a personality that is anything but. The character she portrays is, in fact, quite remarkably sexy, and the first act fairly sizzles with the threat of impending seduction. Nicolai Gedda seems to be having the time of his life as Eisenstein, and Adolf Dallapozza (an Italian from the Tirol, and obviously bilingual) was literally born to the role of Alfred, the Italian tenor on the make. Renate Holm is an enchanting Adele, Dietrich Fischer-Dieskau invests the role of Falke with real character, and Brigitte Fassbaender brings a lustrous voice to her interpretation of Orlofsky, with a near-revelatory effect on the music. None of these artists is Viennese—but Walter Berry is, and he evidently enjoys, as listeners will, his lusty characterization of Frank, the jolly jailer.

This is a performance that avoids broad humor and vulgarity. It adheres to the original text more faithfully than do most presentations, and with excellent results. The story is, after all, concocted out of the age-old ingredients of French farce, and it stands up very well. Musically, too, this is a fuller version than those generally encountered (I do not recall, for example, Falke's couplet about his misadventures in Act Two from other recordings). The

(spoken) role of Sister Ida (Senta Wengraf), too, is more fully rounded here.

The engineers have produced clear and vivid sonics, and the singing is marvelously captured against the rich texture of the orchestra. My only criticism concerns the dynamic levels allotted to conversations away from "stage center." These are sometimes erratic and not always fully audible. Aside from that minor quibble, Angel has given us a magnificent recording of this imperishable operetta.

George Jellinek

JOHANN STRAUSS: *Die Fledermaus*. Nicolai Gedda (tenor), Eisenstein; Anneliese Rothenberger (soprano), Rosalinde; Brigitte Fassbaender (mezzo-soprano), Prinz Orlofsky; Walter Berry (baritone), Frank; Jürgen Förster (tenor), Dr. Blind; Adolf Dallapozza (tenor), Alfred; Dietrich Fischer-Dieskau (baritone), Dr. Falke; Renate Holm (soprano), Adele; Otto Schenk (speaking part), Frosch. Vienna State Opera Chorus; Vienna Symphony Orchestra, Willi Boskovsky cond. ANGEL SBLX 3790 two discs \$11.90.

POPULAR

BARBRA STREISAND: THE BERNHARDT OF SONG

An in-concert recording documents her remarkable rapport with an audience

SO WHY should you buy this album? After all, almost everything in it has been recorded by the same artist under perfect studio conditions, and nothing very new or very startling (at least no more startling than is expected) turns up in the performances themselves. The answer is that you should buy this album because it contains a full charge of old-fashioned star-type electricity, that's why. On her new Columbia release, "Live at the Forum," Barbra Streisand can almost literally be heard to take an audience into the palm of her extravagantly long-fingered hand, teasing them, thrilling them, making them laugh and cry—all on cue. *Her cue.*

It is a brilliant piece of showmanship worthy of a Bernhardt (an actress Barbra plans soon to portray on film), and the recording is a graph of the kind of high voltage that can crackle between a great star and her audience. But surely it is pure and abundant talent of a most unique kind that can make 18,000 people (the album was taped at a political benefit) hand six standing ovations to any artist within a single forty-five-minute performance. And these aren't the kind of "standing ovations" that can be heard any night of the week in Vegas for such as Dimples

Magee, the little starlet from nowhere whose manager reserves his best efforts for the organization of a claue. These are explosions of enthusiasm of the kind that happened at almost every performance of *Funny Girl* on Broadway, and that, believe it or not, happened in the movie house I saw the film version in. This was an ordinary performance of the film several weeks into its run, and there was no real-life star on hand to get up and take a bow. Never saw it happen before and never saw it happen again.

Streisand's monologues are probably the high point of the album. She tells a few stories, mostly funny, with the kind of masterful timing that one must apparently be born with; she can make an audience wait longer for the other shoe to drop than any other artist I can off-hand remember—including Jack Benny.

Oh, yes, the music. Well, all of the familiar songs are here, plus one from "Sesame Street" and a beautiful version of *Stoney End*. She finishes off, naturally, with *People*. If Streisand has never had a co-star on recordings before, she has now: it is that audience of 18,000, whose rapport with the greatest singing actress of our time simply jumps out of the grooves along with that unforgettable voice.

Peter Reilly

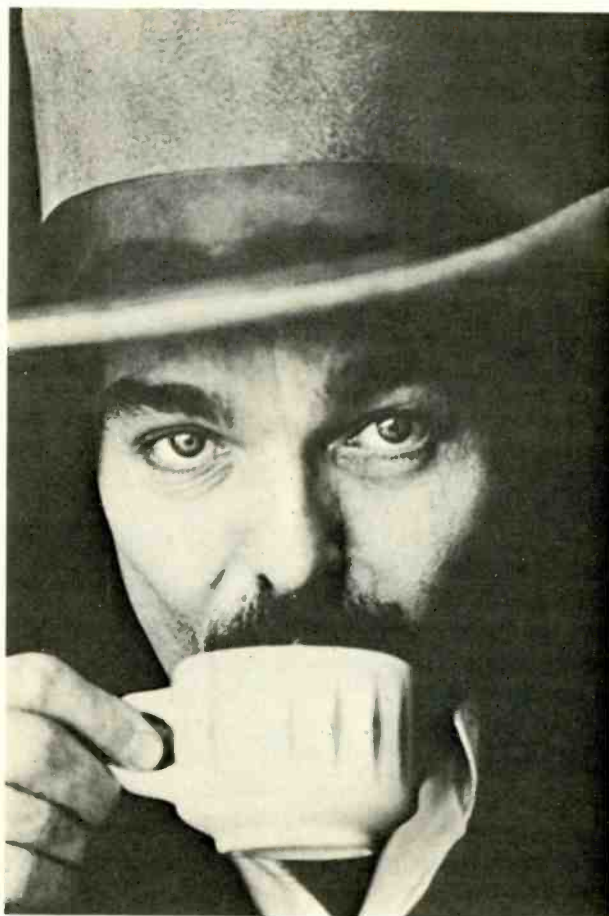
BARBRA STREISAND: *Live Concert at the Forum*. Barbra Streisand (vocals); orchestra, David Shire cond. *Sing/Make Your Own Kind of Music; Starting Here, Starting Now; Don't Rain on My Parade; Monologue; On a Clear Day; Sweet Inspiration/Where You Lead; Didn't We; My Man; Stoney End; Sing/Happy Days Are Here Again; People*. COLUMBIA KC 31760 \$5.98, (R) CR 31760 \$6.98, (B) CA 31760 \$6.98, (C) CT 31760 \$6.98.

CAPTAIN BEEFHEART GOES "COMMERCIAL"

"*Clear Spot*," his latest for Reprise, may make it all just a little easier for the uninitiated

CAPTAIN BEEFHEART, as has oft been noted, is full of surprises. His new Reprise disc "Clear Spot" is especially surprising because it's the most straightforward music he's recorded since his first album, "Safe as Milk," way back in 1965—even the programming of some of the songs is similar.

I had thought that "The Spotlight Kid," his most recent previous outing, was the furthest the Captain was likely to go in his own slightly wayward definition of "commercial," but, by gum, here he is again



CAPTAIN BEEFHEART: big-eyed and playful

with his marvelous four-octave voice, singing such out-and-out rock ballads as *My Head Is My Only House Unless It Rains* and *Her Eyes Are a Blue Million Miles* and dance tunes like *Low Yo Yo Stuff*. But the album also includes a few songs that are more typically heartfelt Beefheart: *Big Eyed Beans from Venus* and *Golden Birdies*, the latter a poem written by the Captain and declaimed by him a few lines at a time, with his Magic Band playing the interludes—just as jazz groups used to do with the San Francisco School poets long ago in the Fifties.

Let the world know that I am a Beefheart fan. I think his music is rich and imaginative, and he delights me with lyrical word-games as arresting as those in Vladimir Nabokov's novels. The Captain is outlandish, tender, childlike, and very worldly all at the same time. Not all of his music is easily understood, but I think you will agree that the content of this album, like the title and the packaging, is perfectly clear.

Joel Vance

CAPTAIN BEEFHEART: *Clear Spot*. Captain Beefheart and His Magic Band (vocals and instrumentals). *Low Yo Yo Stuff; Nowadays a Woman's Gotta Hit a Man; Too Much Time; Circumstances; My Head Is My Only House Unless It Rains; Sun Zoom Spark; Clear Spot;*

Crazy Little Thing; Long Neck Bottles; Her Eyes Are a Blue Million Miles; Big Eyed Beans from Venus; Golden Birdies. REPRIS MS 2115 \$5.98, © M8 2115 \$6.98, © M5 2115 \$6.98.

GAUDETE! STEELEYE SPAN

Demonstrating again that even the oldest of music, properly done, is contemporary

LISTENING to old English folk music, even quality stuff, can either provide a delightful excursion into the past or induce a fitful snooze—it all depends on the performers. Steeleye Span is a group of folk artists that has changed personnel several times over the course of three previous albums, but this time around they have surely come into their own. The album's title, "Below the Salt," as Tim Hart explains in his refreshingly unpedantic program notes, refers to the servants' end of the medieval dining table, at which they were separated from

MADDY PRIOR: *a remarkable balladic knack*



Chrysalis Records

their employers by that then costly condiment. With that as a cue, what we get, then, is folk music that is more of the folk than of the gentry, and though it is both tasteful and authentic, it is presented with a rough and rousing vitality that keeps the listener wide-awake throughout, savoring a cheekiness that is like a fresh breeze wafting through a long-closed room.

The songs are not the usual old standbys trotted out to be treated to a respectful artificial respiration by electric guitars, but long-lost nuggets rescued from obscurity by enterprising researchers who had the cooperation of the English Folk Dance and Song Society. There's *Spotted Cow*, for example, in which a "charming maid" leads a "gentle swain" on a search for what proves to be not a missing bovine at all but another sort of treasure at the end of the hunt. (Many of the lovers in these ditties turn out to have an unexpectedly canny streak mixed in with their romantic natures.) In *Sheep-crook and Black Dog*, a young lady named Dinah puts off her wedding to a shepherd named Willy in order to become the servant of a "fine lady," an experience that leads to a change of heart and an aspiration to marry into a higher class. *Saucy Sailor* is about an independent tar named Henry who throws over his fiancée because she's just a poor country girl; he intends to marry money and doesn't "give a single pin, my boys, what the world thinks of me."

The program takes even further unexpected turns. *Gaudete* (which, deservedly but incredibly, seems to be turning into a hit single both in England and here in the U.S.) is a Christmas carol, sung in Latin, dating back, probably, to medieval times. *John Barleycorn* tells how ale first came to be brewed. *King Henry* is a macabre ballad about an affair in a "haunted hall" between the monarch and a "grisly ghost" of a female. To spice up this material, Steeleye Span offers choral treatments, stunning solo work, and clever instrumentation that brings in fiddles, mandolins, banjos, guitars, a dulcimer, and a set of exceptionally scintillating spoons. But more scintillating by far is the singing of Maddy Prior, whose knack for suggesting the period qualities of these ballads is remarkable. Mr. Hart, in his notes, goes about mischievously translating all the medieval situations in the ballads into contemporary ones, with a light-handed lack of obtrusiveness worthy of the occasion. Texts of all the songs are included.

Paul Kresh

STEELEYE SPAN: *Below the Salt.* Steeleye Span (vocals and instrumentals). *Spotted Cow; Rosebud in June; Jigs; Sheep-crook and Black Dog; Royal Forester; King Henry; Gaudete; John Barleycorn; Saucy Sailor.* CHRYSALIS CHR 1008 \$5.98.

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CIRCLE NO. 7 ON READER SERVICE CARD



POPULAR DISCS AND TAPES

Reviewed by CHRIS ALBERTSON • NOEL COPPAGE • PAUL KRESH
 REX REED • PETER REILLY • JOEL VANCE

DAVID AXELROD: *The Auction*. Composed and arranged by David Axelrod. DECCA DL 7 5355 \$4.98, Ⓟ 6 5355 \$6.98, Ⓒ C73 5355 \$6.98.

Performance: **Self-serving**
 Recording: **Self-serving**

This is another arrogant attempt to rip off the black American experience by someone trying to make an "aware" dollar. I'll still take one paragraph of Wright's *Native Son* or Ellison's *Invisible Man* over the whole of William Styron's *Nat Turner*, and I'll continue to believe that one song by Melvin van Peebles carries more credibility than a whole show by, say, Gershwin or Kern/Hammerstein. Yes, baby, it's about a slave auction. It was composed by David Axelrod and recorded to no avail. Much as I try, I can't really believe that there were good intentions involved here.

P.R.

RECORDING OF SPECIAL MERIT

BRINSLEY SCHWARZ: *Nervous on the Road*. Brinsley Schwarz (guitar); Ian Gomm (vocals, guitar); Nick Lowe (vocals, bass); Bob Andrews (keyboards); Bill Rankin (drums). *It's Been So Long; Happy Doing What We're Doing; Surrender to the Rhythm; Don't Lose Your Grip on Love; Nervous on the Road; Feel a Little Funky; I Like It Like That; Brand New You, Brand New Me; My*

Home in My Hand; Why, Why, Why, Why, Why. UNITED ARTISTS UAS 5647 \$5.98.

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

Brinsley Schwarz just may be the most unknown great band in rock and roll—in this



United Artists

BRINSLEY SCHWARZ

The British tradition: eclectic as hell

country, at least. In England, they've built up a substantial reputation as the club group par excellence, no small accomplishment in the wake of a massive initial hype that flopped about as badly as those things can flop. Over here, however, no one's paid much attention to them except critic Mike Saunders, but albums like this one and a forthcoming first American tour should change that.

Stylistically, Brinsley is solidly in the great British tradition; in other words, they're eclectic as hell. At various times in their brief recording career they've sounded like CSN&Y, Mountain, the Stones, Procol Harum, Traffic, Bob Dylan, the original Byrds, Beatles 65, Buddy Holly, any number of surf bands, and the American Medical Associa-

tion. But, unlikely as it seems, considering the scope of their influences, they've always managed to sound like themselves; no matter who they were frankly copying at any given moment, the sound was always colored by an identifiable personal vision, due largely to keyboard man Bob Andrews, who has consistently come up with sparsely lyrical, moving accompaniments, and to bassist Nick Lowe, who is developing into a major songwriter and is already a first-rate rock-and-roll singer.

"Nervous on the Road" is a bit of a departure, being much more solidly entrenched in r-&b than anything the group has done before (chalk up the Geils Band as another influence), but Brinsley proves equally as convincing with this kind of stuff as they were with the country-inflected numbers on their previous "Silver Pistol." *Feel a Little Funky* is perhaps a bit too relaxed, and their cover of *I Like It Like That* is not about to erase memories of the Dave Clark Five's crazed rendition, but everything else is just fine.

So buy "Nervous" immediately; and, while you're at it, try to grab the band's earlier Capitol albums (in this reviewer's opinion, still their best work) before they're lost to history. If you're lazy, of course, you can always wait for UA to reissue them as *Legendary Masters*, but if you hurry you can still out-hip your friends.

Steve Simels

CAPTAIN BEEFHEART: *Clear Spot* (see *Best of the Month*, page 90)

RITA COOLIDGE: *The Lady's Not for Sale*. Rita Coolidge (vocals); orchestra. *My Crew; Fever; Donut Man; Inside of Me; Whiskey Whiskey*; and six others. A & M SP 4370 \$5.98, Ⓟ 4370 \$6.98, Ⓒ 4370 \$6.98.

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

Rita Coolidge is a gifted enough singer, but here she lacks vitality in almost every area of projection and performance. For instance, her temperature seems resolutely normal in her version of the old Peggy Lee classic *Fever*, and Leonard Cohen's *Bird on the Wire* is so formlessly sung that real patience is required

Explanation of symbols:

- Ⓜ = reel-to-reel stereo tape
- Ⓟ = eight-track stereo cartridge
- Ⓒ = stereo cassette
- = quadrasonic disc
- Ⓜ = reel-to-reel quadrasonic tape
- Ⓟ = eight-track quadrasonic tape
- Ⓒ = quadrasonic cassette

Monophonic recordings are indicated by the symbol Ⓜ

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

to sit through it. Added to this is the unfortunate intrusion of a thick organ overlay on several tracks, with the result that a great deal here sounds like a soap-opera soundtrack. But the basic problem with this recording is that it lacks charm of any kind, and coming from Miss Coolidge that is quite a surprise. *P.R.*

TIM HARDIN: *Painted Head*. Tim Hardin (vocals, guitar); Peter Frampton (electric guitar); Alun Davies (guitar); Jean Roussel (keyboards); various other musicians. *You Can't Judge a Book by the Cover; Midnight Caller; Yankee Lady; Lonesome Valley; Sweet Lady; Do the Do; Perfection*; and three others. COLUMBIA KC 31764 \$5.98, Ⓞ CA 31764 \$6.98.

Performance: **Variable**
Recording: **Okay**

Tim Hardin wrote none of the songs in this album, and none of any importance on his last album. That's reason enough to be concerned if you think—as I do—there's something special behind Tim's disheveled, chaotic façade. But some of the old idiosyncrasies of phrasing are back in his voice here, and he isn't slurring everything like a wino with a speech impediment, as he was a while ago, so all we've got to do now is get him writing again. Even the arrangements have lost their near-jazz esoterica and dullness: these are straight-ahead rock types, propelled mostly by Peter Frampton's imitation-Roy-Buchanan electric guitar. Hardin's romantic musing with Jesse Winchester's *Yankee Lady*, Pete Ham's *Midnight Caller*, and Randy Newman's *I'll Be Home* (that's right: Tim sings it straight) are about the only reasons for getting the album—the up-tempo things here sound as bad as his own up-tempo things have in the past. But there was a chance, at least, that if he straightened his vocals out the muse would visit him again. Now he's straightened his vocals out. *N.C.*

RECORDING OF SPECIAL MERIT

RICHIE HAVENS: *On Stage*. Richie Havens (vocals and guitar); orchestra. *From the Prison; Old Friends; My Sweet Lord; Rocky Raccoon; The Dolphins; Nobody Knows*; and ten others. STORMY FOREST 2 SFS 6012 two discs \$11.98, Ⓞ 8116 6012 \$9.95, Ⓞ 5116 6012 \$9.95.

Performance: **Caviar**
Recording: **Live and excellent**

In Richie Havens' best work, raw and harsh as it often is, there is the brooding elegance of an El Greco. He is an artist of grace and power, and his elongation of narrative lyric line is unique. The absolute sincerity of communication, in combination with his sophistication on the guitar and his control of lyrics, makes Havens a good deal more than a simple entertainer. His mood-stricken performances are all of a piece, yet each song is distinctive.

This album, taken from a live performance, has several tracks of Havens at his best. What is most valuable about him is his gift for transforming the familiar. *The Dolphins*, for example, is a song that I have consistently disliked throughout its umpteen recordings—but I was engrossed by Havens' reading.

As any artist should, he involves his audience in the performance, and that quality can be heard on this recording. Live recordings, to me, often mean a commercial jumble. In this case it adds to the pleasure of listening to a great musical communicator. *P.R.*

DOUG KERSHAW: *Devil's Elbow*. Doug Kershaw (vocals and guitar); orchestra. *Super Cowboy; Jamestown Ferry; Billy Bayou; Honky Tonk Wine; I Like Babies*; and seven others. WARNER BROS. BS 2649 \$5.98, Ⓞ M8 2649 \$6.98, Ⓞ M5 2649 \$6.98.

Performance: **Wrong turn**
Recording: **Commercial**

Doug Kershaw seems to have decided to leave the Bayou country and move up deep into the heart of commercial Nashville. This album displays almost none of his purely magical fiddling and features him as a vocalist. Bad move. As a c-&-w singer he is just an adequate one among many. Slickness pervades everything here, and dullness is the result. As a fiddler the man is an artist, uniquely evocative of an almost vanished Cajun culture; as a Nashville market item he is only mildly competent. This is a great waste of a great talent. *P.R.*

Stormy Forest



RICHIE HAVENS
Brooding elegance, grace, and power

CAROLE KING: *Rhymes & Reasons*. Carole King (vocals and keyboards); instrumental accompaniment. *Come Down Easy; My My She Cries; Peace in the Valley; Feeling Sad Tonight; The First Day in August; Bitter with the Sweet; Goodbye Don't Mean I'm Gone*; and five others. ODE SP 77016 \$5.98, Ⓞ 77016 \$6.98, Ⓞ 77016 \$6.98.

Performance: **Disappointing**
Recording: **Very good**

This new Carole King album is a disappointment. I suppose it's too much to expect that she would have an unbroken string of triumphs, and this lapse is only temporary, I'm sure.

Drawing upon your own life to express yourself in music is a tricky business, for (1) your accuracy may be suspect, (2) your interpretive powers are subject to hot and cold spells, and (3) you may have nothing new to say. One of these must be the problem here, because too much of "Rhymes & Reasons" sounds like a rehash of Miss King's earlier work: her songs of introspection, usually delicate and intricate, simply sound timid.

Bitter with the Sweet, Goodbye Don't Mean I'm Gone, and Stand Behind Me are the standout tunes, fine on their own. But the first one is a major performance disappointment because of what it could have been—possibly another *It's Too Late*. Harry

"Sweets" Edison and Bobby Bryant, two excellent jazz trumpeters, are on this cut, but instead of being given a chorus apiece, they are confined to blowing background harmony. That's a waste of talent, including Miss King's; her excellent vocals seem particularly suited to light jazz accompaniment.

Oh, well. Next time around things should come out right. *J.V.*

KRIS KRISTOFFERSON: *Jesus Was a Capricorn*. Kris Kristofferson (vocals and guitar); orchestra. *Nobody Wins; Help Me; Sugar Man; Jesse Younger; Why Me*; and five others. MONUMENT KZ 31909 \$5.98.

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

The Rubirosa of Rock is back, this time keeping cool with Coolidge (Rita), who shows up on the cover as well as on two bands of the album. The more hilarious of the two is *Give It Time to Be Tender*, a duet about neophyte lovers urging each to be "gentle" with the other; under the circumstances it's like Hugh O'Brian and Zsa Zsa singing *Oh, Promise Me*. Kristofferson is in his usual form, which is to say very professional, very slick—in a carefully countrified way—and more than a bit hollow. He is undoubtedly a talented man, and two of his songs here, *Nobody Wins* and *Enough for You*, are first-rate. But his primary purpose these days seems to be living up to what he takes to be his legend. And that is becoming a bore. *P.R.*

RECORDING OF SPECIAL MERIT

GORDON LIGHTFOOT: *Old Dan's Records*. Gordon Lightfoot (vocals, guitar, vibes); Red Shea (guitar, dobro); Terry Clements (guitar); Rick Haynes (bass); Barry Keane (drums); other musicians. *Farewell to Annabel; That Same Old Obsession; Old Dan's Records; You Are What I Am; Can't Depend on Love; Mother of a Miner's Child; Hi'Way Songs*; and three others. REPRISE MS 2116 \$5.98, Ⓞ M 82116 \$6.98, Ⓞ M 52116 \$6.98.

Performance: **Just great**
Recording: **Excellent**

One of life's best things is the privilege of working hard at something that doesn't seem like work. Comes now Gordon Lightfoot with "Old Dan's Records," a new album for Reprise that, on the surface, appears to have drifted naturally and effortlessly from Lightfoot's brain to the grooves on the disc. But check it out: it's rather a daring album, representing considerable growth, with no accompanying loss of taste or of any of Lightfoot's other virtues. True, one of the most satisfying cuts is *It's Worth Believin'*, the kind of tightly paced ballad—in the tradition of *Early Morning Rain* and *Second Cup of Coffee*—that Lightfoot does better than anyone, but most of the rest of this album is not so easily hooked up with preconceptions about what Lightfoot's music is.

My Pony Won't Go is a near-blues thing, with lyrics that metaphorically broach a subject that I don't think pop music has tackled before (no, I won't spoil it for you). *Lazy Mornin'* has Lightfoot, in the manner of Randy Newman, assuming a viewpoint he does not agree with, that of a complacent suburbanite. *That Same Old Obsession* draws a subtle unstated parallel with an old hymn that also uses a garden allegorically, and it

(Continued on page 96)

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amounts to a melody that is mildly surprising for Lightfoot and a verse that probes the depths in two directions at once—I can see all sorts of political applications of it, for one thing. At the same time, the instrumentation throughout is less stylized than usual. We expect the main texture of Lightfoot's accompaniment to lie in the interplay between two acoustic guitars—Red Shea's neat figures cast an octave above Terry Clements' more or less normal lead. But here Lightfoot makes judicious use of Larry Good's banjo and Bruce Good's just-right autoharp, and the possibilities of this more complex texture are fully realized in *Hi Way Songs*.

The obvious clinker is the title song, and there are a few other indications that Lightfoot is feeling his way—but, cowabunga! is he advancing! It's all right to go on believing Lightfoot is the consummate troubadour—an informed, properly biased, sympathetic but moralizing and perceptive voice in a figure of earnestness and strength, with just a touch of swagger—it's all right, but don't let it lead you to underestimate his depth. N.C.

JOHN MAYALL: *Jazz Blues Fusion*. John Mayall (vocal, guitar, piano, harmonica), Blue Mitchell (trumpet), Clifford Simon (saxes), Larry Taylor (bass), Freddy Robinson (guitar), Ron Selico (percussion). *Country Road; Mess Around; Good Time Boogie; Change Your Ways; Dry Throat; Exercise in C Major for Harmonica, Bass & Shufflers; Got to Be This Way*. POLYDOR PD 5027 \$5.98, 8F 5027 \$6.95, CF 5027 \$6.95.

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

Well, not exactly "fusion." Taking a jazz trumpet and sax and having them blow lines over and through a basic three-chord blues is an exercise in compatibility, but it just ain't intercourse.

John Mayall is a pretty good white harmonica player from England; he's warm and entertaining, and he's completely devoted to the blues—so much so that he formed a label to record obscure bluesmen before they die or quit playing. Good intentions and good performance—here, as in his other albums. You can listen to him and get your money's worth.

Trouble is, almost anyone can play blues. It's one of the simplest technical forms; there are usually no more than three chords, and the melody is usually negligible. That's why it is so easy to fake, why so many get written and recorded. So the effect of blues on an audience depends almost entirely on the artistry of the performer (and go define "artistry"). Outside of gospel, blues is the American musical form that most depends on the performer: the materials are slight, and to make them whole and exciting is a matter of chemistry.

The chemistry in this album doesn't quite take. The phrasing and attack of the trumpet and sax are different from Mayall's guitar and harmonica, but not that much different. Which puts the "fusion" somewhere between shandy-gaff and a boilermaker. J.V.

RECORDING OF SPECIAL MERIT

GEOFF AND MARIA MULDAUR: *Sweet Potatoes*. Geoff and Maria Muldaur (vocals and instrumentals); orchestra. *Havana Moon; Cordelia; I'm Rich; Kneenin' Me; Lazybones*; and five others. REPRISE MS 2073 \$5.98.

Performance: **Often hilarious**
Recording: **Excellent**

Geoff and Maria Muldaur, two refugees from the old KweSkin Jug Band, have come up with a sly, funny album that pokes intelligent fun at almost everything in sight, but also has some very nice quiet moments. There is a ribald masterpiece here, and it is called *Kneenin' Me*. It is easily one of the most hilarious tracks I've ever heard on a disc. Sorry I can't describe it to you in any detail (and I know you're never going to hear it on the radio), but roughly—very roughly—it's the shouted tirade of a Jeeter Lester type to his dancing partner. It is done in the style of the old time jug bands and is as lewd as it is thunderously funny.

Maria sings *Lover Man* against a fine jazz arrangement, and with an unfrilled sincerity that is ultimately quite touching. *Dardanella* is performed as a witty parody of the original Twenties hit recording, and *I'm Rich* is an irreverent glance at the *nouveaus* of the seventies whose social ambitions now approach the cosmic—he wants top billing along with St.



CHARLEY PRIDE

Head and shoulders above the c-&-w crew

Peter. *Sweet Potatoes* is a sweet duet between Geoff and Maria, perhaps a little too sweet. But then, perhaps it was meant to be—the very next band is the disreputable *Kneenin' Me*.

So what we have is a very sophisticated album by two very sophisticated people, who have not only mastered the art of the put-on but have the good sense and the good taste not to rub it in. P.R.

RECORDING OF SPECIAL MERIT

CHARLEY PRIDE: *A Sunshiny Day*. Charley Pride (vocals and guitar); orchestra. *One More Year; Sunshiny Day; Nothin' Left but Leavin'; Back to the Country Roads; When the Trains Come In*; and five others. RCA LSP 4742 \$5.98, P8S 1997 \$6.95, PK 1997 \$6.95.

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

There are some performers who are so good at what they do that further praise takes on a patronizing note. Charlie Pride is that kind of artist-performer. So I won't bore the hell out of you talking about a talent that, if you've ever had even the slightest interest in country music, you probably have strong ideas about.

I will mention that this is another superb job by Pride, that *It's Gonna Take a Little Bit Longer* is the best band among many fine things, that he brings such vigor and commitment to everything he sings as to stand head and shoulders above the usual c-&-w performer, that this is his seventeenth album, and that you ought to own it. P.R.

RECORDING OF SPECIAL MERIT

JOHN PRINE: *Diamonds in the Rough*. John Prine (vocals, guitar); Steve Goodman (guitar, backing vocals); David Bromberg (guitar, mandolin, dobro); Steve Burgh (bass). *Everybody; The Torch Singer; Souvenirs; The Late John Garfield Blues; Billy the Bum; The Frying Pan*; and six others. ATLANTIC SD 7240 \$5.98, TP 7240 \$6.98, CS 7240 \$6.98.

Performance: **On the brink**
Recording: **Very good**

Woody Guthrie of Oklahoma had a Southern accent. Bob Dylan of Minnesota imitated Woody's Southern accent. John Prine of Illinois imitates Bob's imitation. End of review? No, damn it: for all his posing, Prine has real, old-time, bare-knuckled talent as a songwriter. He may sound like Dylan, but he has his own kind of fascination with the language (being the more conventional kind of punster: "I'm going away to the last resort/... The horses scream/The nightmares dream..."). And, whereas Dylan's commitment seemed (appropriately, at least in the Sixties) to be mainly to the flux of his own identity, Prine writes from a more stationary vantage point. When he makes a metaphor (*The Great Compromise*), he holds still and makes sure everyone gets it. When he makes a joke (*The Frying Pan*), he is simple and direct about it.

As I see it, Prine's only writing problem (he has several vocal problems) is that he is a little too clear-cut about things: the listener should be put to work a little more. This, too, characterized the very early work of Bob Dylan, and there it proved a solid foundation for extraordinary growth.

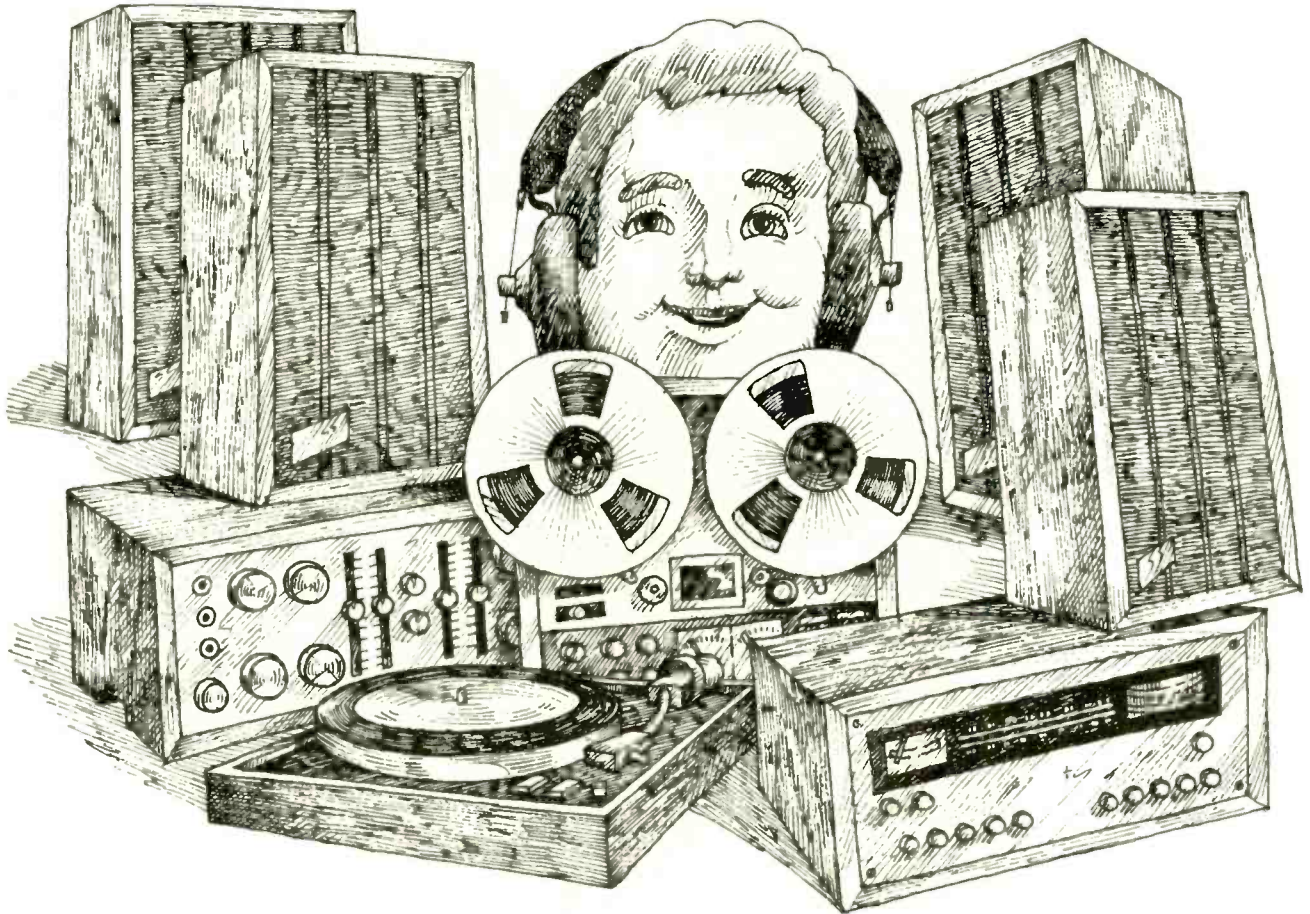
Prine's pieces are not the last word in songwriting, as some people keep telling us: there are many subtleties he hasn't whipped yet. But the moment when the dam starts to crack is irresistibly exciting, and "Diamonds in the Rough" is that kind of moment. N.C.

PURE FOOD & DRUG ACT: *Choice Cuts*. Pure Food & Drug Act (vocals and instrumentals). *Jim's Message; My Soul's on Fire; 'Til the Day I Die; Eleanor Rigby; A Little Soul Food; Do It Yourself; Where's My Sunshine; What Comes Around Goes Around*. EPIC KE 31401 \$5.98.

Performance: **Dandy**
Recording: **Very good**

Recorded "live" in a Seattle club, this album has the feel of a jam session. I haven't consulted the rock genealogy lately so I don't know if Pure Food & Drug Act is an official group or just "cousins" from other groups who happened to bump into each other. Either way, they sound good. Harvey Mandel is a fluent but restrained guitarist; he knows all the tricks, but he isn't flashy. Don "Sugar-cane" Harris plays a fine violin. Most of the tunes are mediocre, but the group sails above them. They make a terrible mistake on *Eleanor Rigby* by juicing up the tempo, but they (Continued on page 100)

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THE ROLLING STONES' "MORE HOT ROCKS"

As usual, it's a "Bitch"
Reviewed by Steve Simels

MORE HOT ROCKS (big hits and faded cookies)" could have been nothing more than London Records' inevitable Christmas present to its sales department: let's face it, the Rolling Stones are indisputably the greatest rock-and-roll band in the world, and the average Rolling Stones fan would probably buy four sides of Bill Wyman playing *Lady of Spain* if they came with some pictures. So would I, for that matter. But, fortunately, this time London, or more likely Allen Klein, has done it up right, and "More Hot Rocks" is consequently not just their umpteenth convenient historical overview *cum* party album, but is instead a long-overdue, (reasonably) intelligently programmed assemblage of the more esoteric Stones tracks we've all been clamoring for since the day some nameless teenager first discovered that British releases had *fourteen* cuts and their American counterparts had only twelve.

Thus *We Love You*, for example (available here previously only as the B-side of a single), segues out of *Dandelion* as it was originally intended to, unmistakable evidence that somebody actually gave some thought to putting this package together. And, praise be, they've even included *Child of the Moon* in stereo. Little touches like this just make my day—and I'm not about to complain about the inclusion of such other major mind-bogglers as *It's All Over Now*, or authentic rock-and-roll cataclysms like *The Last Time*. But the real goodies are

saved for side four. With the exception of *Fortune Teller*, none of these songs have ever been released in this country, and I think that at this point some brief comment on the individual tracks would be apropos. Running them down in order, here's what we get:

- *What to Do*: from the British version of "Aftermath," and one of the prettiest songs from that prettiest of albums. The truly bouncy melody contrasts neatly with the cosmic ennui expressed in the lyrics. Dig the Beach Boy harmonizing by Mick and Keith.
- *Money*: from the Stones' first EP, which also featured *Bye Bye Johnny* and *Poison Ivy*. The boys do it Muddy Waters-style, with some darkly mysterious slide guitar and harp. Comparisons with the Beatles' version (a purist copy of the Motown original) are instructive.
- *Come On*: their first single, and probably the most blatantly commercial thing they ever did. Mick's vocal is heavily double-tracked, and he sounds like a kid; overall, it's hardly distinguishable from the music then being purveyed by groups like the Searchers or the Swinging Blue Jeans. A delightful relic.
- *Fortune Teller*: Yes, kids, this *is* the same track that was released here as part of "Got Live If You Want It," but this time they've dispensed with the spurious crowd noises Oldham dubbed on to simulate a con-

cert performance. As one of their better-natured r-&-b attempts, it's nice finally to be able to hear it.

- *Poison Ivy*: the real find of the set. This is not the version from that previously mentioned EP, but an alternate try which (according to Mick in a 1968 interview) has never been released anywhere. The guitars are less prominent, and the feel is pure pop, much closer to *Come On* than to the stomping track they finally released.
- *Bye Bye Johnny*: they're still doing it in person, but if the last tour is any indication, nowhere near as well; this version is probably a close approximation of what it sounded like on stage at the Crawdaddy Club in 1963, and as such it's a complete gas.
- *I Can't Be Satisfied*: from the British "Rolling Stones No. 2" (which later became "The Rolling Stones Now" in America); highlights are some tasty slide guitar (from Brian?) and a nice, unaffected Jagger vocal.
- *Long Long While*: the flip side of *Paint It Black* in England, and one of their most intense soul epics, deriving in equal measure from Otis Redding and Ray Charles, reminiscent in texture of much of "Aftermath." Somebody (Ian Stewart, probably) contributes some very fine organ work.

FOR all this let me not appear ungrateful. But I must, in good conscience, register a few complaints at this juncture. For one thing, since the first three sides are arranged chronologically, from *Tell Me to Let It Bleed*, why did London see fit to lump the unfamiliar stuff arbitrarily on one side? Wouldn't it have made more sense to arrange the album as a document of the Stones' musical development? For another, where, pray tell, are all those cuts that are still unreleased? Where is *I Want to Be Loved?* Where's *I Wanna Be Your Man* or *Stoned?* Where's *Who's Driving My Plane?* or (gasp!) the Italian versions of *As Tears Go By* and *Heart of Stone?* And where, for that matter, is the live *Let It Rock* from their last English tour?

Well, I'll tell you where: reposing in London's vaults until next Christmas and the release of "Hot Rocks Goes Hawaiian." In the meantime, we'll just have to make do with "More Hot Rocks," which won't be so difficult considering that it's chock full of incredible music, comes decorated with alternate takes of the "Between the Buttons" cover photo, and even features Andrew Oldham's first liner notes since 1966. Only a complete philistine (or a Rolling Stones fan, which may be the same thing) could ask for more. I've already worn out my copy.

THE ROLLING STONES: *More Hot Rocks* (big hits and faded cookies). The Rolling Stones (vocals and instrumentals). *Tell Me: Not Fade Away; The Last Time; It's All Over Now; Good Times, Bad Times; I'm Free; Out of Time; Lady Jane; Sittin' on a Fence; Have You Seen Your Mother, Baby, Standing in the Shadow?; Dandelion; We Love You; She's a Rainbow; 2000 Light Years from Home; Child of the Moon; No Expectations; Let It Bleed; What to Do; Money; Come On; Fortune Teller; Poison Ivy; Bye Bye Johnny; I Can't Be Satisfied; Long Long While.* LONDON 2 PS 626/7 \$9.96, Ⓢ A82T 4224 \$11.98, Ⓒ AC2T 4224 \$11.98.

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redeem themselves by doing good things within the context of that mistake. Paul Lagos' steel drums on *Where's My Sunshine* are particularly exciting. A good album that'll be good for a long time. *J.V.*

RECORDING OF SPECIAL MERIT

TOM RAPP: *Stardancer*. Tom Rapp (vocals, guitar); Charlie McCoy (guitar, dobro, vibes, organ, banjo, harmonica, toy piano); Mike Leech (bass); Steve McCord (guitar); other musicians. *Fourth Day of July*; *For the Dead in Space*; *The Baptist*; *Summer of '55*; *Tiny Song*; *Stardancer*; *Marshall*; *Why Should I Care*; *Touch Tripping*; *Les Ans*. BLUE THUMB BTS 44 \$5.98.

Performance: **Write on, Tom**
Recording: **Very good**

They say you can get used to anything, but, as much as I like Tom Rapp's songs, I can't cultivate a liking for that terrible voice of his. It's as if the sound, making its way up his throat, encounters something horrifying and is never the same again. He whines, he growls asexually, and he burbles through a mouthful of saliva—or is it Pepsi-Cola?

But he writes. Boy, does he write. Anyone who can write a song like *Fourth Day of July* (theme: a ship supposed to bring home the last soldier from Vietnam yields up "a line of broken children . . . the light of death . . . in their eyes . . . the broken children of Vietnam"—and that, generally, is a message song that cuts through the "peace with honor" baloney and gets to the heart of the matter)—anybody who can write like that, as I was saying, simply must be kept around, even if it means letting him sing. Unlike most Heavy Lyricists, Tom puts some actual thought into composing melodies. His are not terribly sophisticated melodies, to be sure, and sometimes (*Summer of '55*) they stretch thin where they shouldn't and thicken up where they shouldn't in order to fit around an awkward, unyielding meter in the lyrics. But generally they can stand being whistled, and add tone and setting.

I won't even go into the confusion the credits on this album are capable of causing (has the Pearls Before Swine concept been scrapped, revived, modified, or what?), except to say that some of these musicians—Ken Buttrey, Charlie McCoy, and David Briggs among them—were among the Pearls in Rapp's "The Use of Ashes" album. That was a dandy, and this one may be even better. Vocals and all. *N.C.*

RECORDING OF SPECIAL MERIT

CARLY SIMON: *No Secrets*. Carly Simon (vocals, piano, guitar); instrumental accompaniment. *The Right Thing to Do*; *His Friends Are More than Fond of Robin*; *We Have No Secrets*; *Embrace Me, You Child*; *Waited So Long*; and five others. ELEKTRA EKS 75049 \$5.98, © 85049 \$6.98, © 55049 \$6.98.

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

Carly Simon has had a great deal of success in a short time; in two years she has had three hit albums and two hit singles, packed 'em into music fairs and concert halls, given the pedestals of Joan Baez and Judy Collins a hearty nudge, and married pop hero James Taylor. Her new album is, as might be expected, ex-

cellent. Besides *You're So Vain*, the hit single, there is a scorching good version of Taylor's *Night Owl* and a batch of new Simon originals, of which *The Carter Family* is a K. O.

Ms. Simon has a virtual full Nelson on being the *chanteuse* of those in their early twenties (or perpetually in their early twenties) who find that their identity, family affairs, and sexual liaisons are sometimes less than fully satisfying. This is not subject matter that will cause the Rockies to crumble or Gibraltar to tumble, but Ms. Simon is the current master (dare I say mistress?) of it. She wears her crown well. *J.V.*

STEELEYE SPAN: *Below the Salt* (see Best of the Month, page 91)

BARBRA STREISAND: *Live Concert at the Forum* (see Best of the Month, page 89)

JAMES TAYLOR: *One Man Dog*. James Taylor (vocals, guitar); Danny "Kootch" Kortch-



CARLY SIMON
She wears her crown well

mar (guitar); Lee Sklar (bass); Craig Doerge (keyboards); Russ Kunkel (drums); Carly Simon, Carole King (background vocals); other musicians. *One Man Parade*; *Nobody but You*; *Chili Dog*; *Fool for You*; *New Tune*; *Back on the Street Again*; *Don't Let Me Be Lonely Tonight*; *Woh, Don't You Know*; and six others. WARNER BROS. BS 2660 \$5.98.

Performance: **Variable**
Recording: **Very good**

James Taylor and I have a basic disagreement, I guess, about whether a song needs a melody. I say it does. "One Man Dog" erases the few doubts left by "Mud Slide Slim" about James' opinion. (He's got Carly Simon, but that doesn't prove he's right.) There are some nice moods here; the backup by Taylor regulars now calling themselves the Session is excellent; his *Hymn* followed by *Fanfare* was a nice touch; even the tuneless riffs in *Nobody but You* and *Back on the Street Again* amount to catchy raw material for this fine band; and everyone will applaud the kind of fun James has with *Chili Dog* ("Make my bed out of Wonder Bread . . ."), a throwback to *Steam Roller Blues*. But it's been a long time since

his last tuneful tune (*Close Your Eyes*), and his dark baritone needs something to sing. His "poetry," done as it is here in a relentless monotone, just doesn't sustain—and his cutesy-pie way of building up his own mythology by referring in new songs to lines and titles of his old songs is not yet Faulknerian by a long shot.

The album has textural variety, and any truly fanatical Taylor fan—the sort who has a mother instinct and therefore is at the business end of the real nexus of Taylor's appeal—will like it. But for me the excellent job he and the band do with the lilting old folk song *One Morning in May* illustrates too clearly that a dark baritone like that ought to be singing, not droning. *N.C.*

IKE TURNER: *Blues Roots*. Ike Turner (vocals, guitar, other things); various musicians. *You're Still My Baby*; *Tacks in My Shoes*; *The Things I Used to Do*; *Gain' Home*; *Lawdy Miss Clawdy*; *Right On*; *Think*; and five others. UNITED ARTISTS UAS 5576 \$5.98, © U 8380 \$6.95.

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

Ike sings! But though an exclamation point is not really what we want for that, a question mark is not quite right either. The album seems to indicate that Ike is a fair interpreter of good material, songs by such people as Chuck Willis and Willie Dixon, but can't do much for such dire songs as *Right On* and *Think*, written by—Ike Turner. He sings with a sort of strained huskiness, sounding the way Richie Havens might if you ran his voice through a corn sheller and bumped the goose-flesh off its texture. The arrangements accommodate some real blues improvisation, but are pretty tight. The album makes an impression similar to what Dylan said of one of his songs: it's like walking by a side street—you look in and then go on. *N.C.*

MARK VOLMAN & HOWARD KAYLAN: *The Phlorescent Leech & Eddie*. Mark Volman and Howard Kaylan (vocals); instrumental accompaniment. *Flo & Eddie Theme*; *Thoughts Have Turned*; *It Never Happened*; *Burn the House*; *Lady Blue*; *Strange Girl*; *Who But I*; *I Been Born Again*; and five others. REPRIS MS 2099 \$5.98.

Performance: **Fluent**
Recording: **Very good**

Volman and Kaylan are formerly of the Turtles, a better-than-average pop group of the Sixties, and later did a stint with Frank Zappa and the Mothers (where they were billed as the Phlorescent Leech & Eddie). But who is the man behind it all, who is the Big Boss? It turns out to be—metaphysically—John Phillips, head Papa of the Mamas and the Papas, who wrote a song describing a state of mind and a type of music—*California Dreamin'*. That state of mind and kind of music surely do exist, and they are pleasant in the extreme, but like all extremes they eventually become addictive and dull the senses while creating the impression in the addict of heightening them.

So this album is super-pleasant pop music of the kind known in the trade as "Top 40 Commercial" (referring to the charts of best-selling records). Volman and Kaylan are excellent vocalists for this type of music. It can't hurt you, but it doesn't take you anywhere—
(Continued on page 102)

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it's true limbo-rock. Some have claimed that California Dreamin' music is a terribly subtle art form, but t'ain't so. It's just very nice vacation music. And we all have to go back to work sometime. Don't we? J.V.

LEON WARE. Leon Ware (vocals and piano): orchestra. *The Spirit Never Dies*; *Tamed to Be Wild*; *I Know How it Feels*; *Mr. Evolution*; *Why Be Alone*; and four others. UNITED ARTISTS UAS 5582 \$5.98.

Performance: Good
Recording: Good

Leon Ware has written several songs, with several collaborators, and they all have the patina of a professional who knows what he's about. Perhaps that's why so many big-deal performers have chosen to record his work. This album stars Ware singing Ware, and it soon becomes wearing. He has a light, flexible voice that he is able to accommodate to the music of some of the more vigorous gospel blues, but it never really catches fire. He has co-produced the album, and it is as glossy-slick as everything else here. *Tamed to Be Wild* is the best band, but even there technique seems to be uppermost. No doubt that Ware is a real pro: it's simply that he doesn't communicate much beyond an ability to do several things surpassingly well. P.R.

TONY JOE WHITE: *The Train I'm On*. Tony Joe White (vocals, guitars); various other musicians. *I've Got a Thing about You*, *Baby*; *The Family*; *If I Ever Saw a Good Thing*; *Beouf River Road*; *The Train I'm On*; *As the Crow Flies*; *Sidewalk Hobo*; and five others. WARNER BROS. BS 2580 \$5.98, M 82580 \$6.98. © M 52580 \$6.98.

Performance: Gentle funk
Recording: Very good

It's easy to underestimate ole Tony Joe, as that is the thing one is likely to do to a singer whose range is approximately four-and-a-half notes, or to a songwriter who promises nothing but a couple of pleasant minutes at a time. But as a singer, Tony Joe White conveys convincing sincerity and commitment, and his songs are honest, unvarnished statements of his own experience. He has a strange, fuzzy voice that sounds almost ludicrous on a ballad like *Take Time to Love* (co-written with Kristofferson's ole buddy, Donnie Fritts), but it cooks about right on his subdued swamp-rock songs. Unfortunately, these songs all have practically the same melody. Sometimes—as in *Even Trolls Love Rock and Roll*—White overdoes the “I'm-just-an-old-swamp-rat” bit. That song, along with *If I Ever Saw a Good Thing*, seems to have been contrived purely to sell. But he makes up for that with two fine songs, *The Migrant* and *The Gospel Singer*, which tell stories. Telling stories seems to be the safest thing for Tony Joe to do with lyrics, and reworking the blues is about all he does with music. If you're game for that sort of thing, and want to hear some extremely tasteful instrumental backing besides, this one at least won't waste your time. N.C.

JESSE WINCHESTER: *Third Down, 110 to Go*. Jesse Winchester (vocals, guitar, piano, flute); Amos Garrett (guitar); N. D. Smart (drums); other musicians. *Isn't That So?*; *Dangerous Fun*; *Full Moon*; *North Star*; *Do It*; *Lullaby for the First Born*; *Midnight Bus*; *Glory to the Day*; *The Easy Way*; *Do La Lay*; *God's Own Jukebox*; *Silly Heart*; *All of Your*

Stories. BEARVILLE BR 2102 \$4.98, M8 2102 \$6.98, M5 2102 \$6.98.

Performance: Very good
Recording: Very good

It's been two and a half years between albums for Jesse Winchester, an American exiled in Canada because of the Vietnam war, and in that light his new album is a little strange. It is a collection of several small ideas rather than a few big ones; *Lullaby for the First Born*, at two minutes, fifty-three seconds, is nearly half a minute longer than anything else on side one, and it's an instrumental. One of these mini-songs, *Dangerous Fun*, is good enough to constitute about one-seventh of a life's work, but the quality of the short pieces is spotty, and the appearance of a good, full-size song (*Glory to the Day*) doesn't come a minute too soon.

The most appealing thing about the album is the singing. Winchester's voice has something *wrong* with it, something slightly out of kilter, in just the *right* way. He has a country boy's understanding of people, which comes through in his vocals much more than in his lyrics. (The lyrics here, unlike some of those in his first album, are pretty abstract: What is *Dangerous Fun*? Why, Self-Pity is.) His voice also carries the threat to become golden-silky, and I keep listening to hear how that's going to turn out, even after I've heard enough to know. The album makes a rather vague impression: as the Canadian football reference in its title suggests, it seems to chronicle in broad terms a personal settling-in in Canada, sketching a shadowy picture of the gentleness of certain plateaus in an adjustment. It makes me like Jesse Winchester all out of proportion to the impression his work makes on me. I puzzle some about that. Good album to puzzle to. N.C.

ZULEMA. Zulema (vocals and piano); orchestra. *I Leave it Up to You*; *This Child of Mine*; *Ain't it Sad*; *Don't Be Afraid*; and six others. SUSSEX SXBS 7015 \$5.98.

Performance: Good
Recording: Good

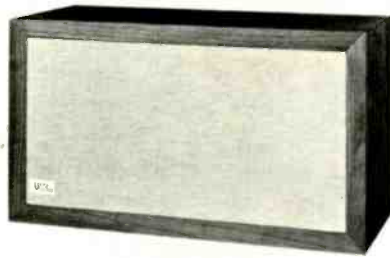
Zulema is one really great-looking black woman, and her debut album pictures her in poses of such drop-dead chic that I feared at first she might be only a figment of *Vogue* magazine's overwrought imagination. Not so. She is a thoroughly competent performer with strong musicianship and a vocal style based on bedrock professionalism. She does lovely and affecting things to the old Rodgers and Hammerstein *If I Loved You* and injects quite a bit of passion into Marvin Gaye's *If This World Were Mine*. Unfortunately, her own material—*American Fruit*, *African Roots* and *This Child of Mine*—too often founders on a bathetic approach to lyrics and music that sounds plain weary. There's a lot of promise for her as a performer, but as a composer she seems as yet to be all feeling and no real substance. P.R.

COLLECTIONS

AMERICAN INDIAN MUSIC (see Classical Reviews, page 134)

WELCOME TO CAFFE LENA. Various vocalists and instrumentalists: *Lena*, *Won't You Open Your Door* (Michael Cooney); *Cluck Old Hen* (Bill Vanaver); *Elegant Hobo* (Paul
(Continued on page 106)

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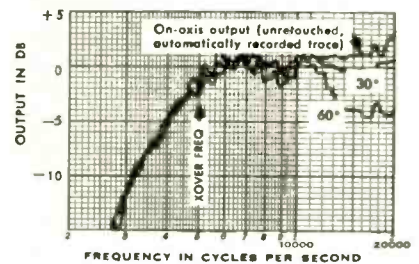
Soon after the AR-1 was introduced, as AR's first “top-of-the-line” speaker system, the *Audio League Report* stated, “We do not specifically know of any other speaker system which is comparable to [the AR-1] from the standpoint of extended low frequency

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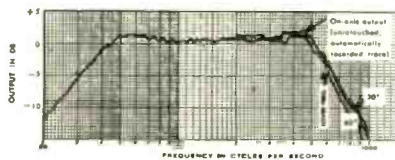
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In a recent review of the AR-3a, published in *Stereo Review*, Hirsch-Houck Laboratories made the following observation:

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THE NITTY GRITTY DIRT BAND

A big, bold, important sampler of traditional country music

Reviewed by Noel Coppage

THREE discs, thirty-six songs, a scattering of grey eminences already enshrined in the Country Music Hall of Fame, two inventors of important guitar styles, the best banjo picker in America, the best flat-picking guitarist in the world—it is to United Artists' credit that they didn't name it "Everything You Ever Wanted to Know About Traditional Country Music" . . . *But Were Afraid to Ask." What they did name it is "Will the Circle Be Unbroken," with a note on each disc's label that adds, "Featuring the Nitty Gritty Dirt Band."

Well, yes . . . I suppose it does feature

DOC WATSON

Greatest flat-picker alive



United Artists

the Nitty Gritty Dirt Band—it features them being respectful and staying out of the way of the cropped-hair Country Giants who dominate the album: Roy Acuff, Earl Scruggs, Doc Watson, Merle Travis, Maybelle Carter, Jimmy Martin, and the late Junior Huskey. *One Nitty Gritty*, though—Jimmie Fadden—is not at all bashful (would that he were, sometimes) about playing his harmonica in the thick of things. The unsung "featured" attraction is the organizational talent of the Dirt Band's manager, Bill McEuen, who rounded up the Giants. Getting Acuff, the King of Country Music, to go along with it was the key, I'm told.

Accordingly, it is impossible to guess what effect this enormously ambitious recording project will have on the upsy-downsy career of the Dirt Band. Fine musicians, they have been hampered mostly by their indecision about whether to be a jug band, a rock band, a country band, or something else. The Dirt Band's reputation in rock, such as it is, will no doubt expose the country stars to some segment of a young, "new" audience, which is good, and it may or may not give the Dirt Band a more positive sense of direction.

Art, as they say, justifies itself in any case, and this big package has untold sentimental value on top of its artistic worth. Who in the blue-eyed world, for example, could be objective enough to say whether Maybelle Carter does "a good job" singing *Wildwood Flower*? These are our roots, man—A. P. Carter himself wrote that tune, and that woman with the sad, draggy voice, the autoharp, and the Gibson guitar that sounds bigger than a double-bass is the mother of us all. Besides, this is a first (they're always nice): the first time Maybelle ever recorded

that song with the autoharp instead of the guitar. We know that because much informal talking that went on between takes is left on the records—I tell you, this McEuen is a sharpie.

Maybelle's segment is about as moving and as far beyond criticism as anything Nashville can turn out—except maybe *one* thing, and I'm saving it for last—and just hearing her pick the melody of *Keep on the Sunny Side* (the Carter Family's theme song, for God's sake) on the three bass strings of that monster guitar—a style other guitarists have been living off of for forty years—is enough to make my day.

You can knock some Hall of Famers, though ("Ol' Diz Dean was too bullheaded to work on any pitch but the fastball," etc.), and the boys in the rock crowd, hearing Roy Acuff for the first time, are going to wonder. Roy still has the unusual, husky vocal timbre that made him, but he is flat on about a third of the notes here and he slides up to overtake some others. His long-time sidekick, dobro player Pete ("Bashful Brother Oswald") Kirby, is about as bashful as Jimmie Fadden when it comes to sounding his instrument—which wouldn't be so bad if he didn't keep playing the same three or four ancient, seedy riffs over and over. He does get clearer high notes from the instrument than most pickers can, but, as long-haired studio ace Norman Blake proves on a couple of cuts, restraint and imagination are not beyond dobro players—just beyond Oswald. Then there's Merle Travis, a heavy influence: unfortunately, it's better to read about him and his effect on Chet Atkins and so forth than it is to listen to him. Painfully unsure of himself as a singer, he makes a few rusty twitches at the guitar and manages to



JOHN McEUEEN



LES THOMPSON

sound like nothing more than a retired jazz musician. Nevertheless, it's a pleasure, visceral as hell, to hear Acuff sing *Wreck on the Highway* ("When whiskey and blood run together/ . . . I heard the crash on the highway/But I didn't hear nobody pra-a-ay") after all these years, corny dobro and all, and to hear Travis' nervous encounter with his coal-mine classic *Dark as a Dungeon*.

Nostalgia will remake what your critical judgment dismembers, if you're old enough. If not, there's Earl Scruggs, playing a lot and playing flawlessly here, as nearly as I can tell, and his appeal is certainly broad enough already. There's Vassar Clements, the best country fiddler since Chubby Wise. A young veteran. Clements can hook you into country music if you've been able to give such rockers as Sugar Cane Harris or Jerry Goodman a fair hearing. He isn't the musician Wise was; Wise was an outrageously talented violinist who was born into country music, and knew exactly what an arrangement needed as well as how to take a solo break (in basketball it's called moving without the ball, and Chubby Wise was the Bill Bradley of fiddling). But Vassar takes a break better than any country fiddler now active, reeling madly into simultaneous lead and ornamentation, somehow managing to play pure and sweet and rough and ready at the same time, no overdubs ever necessary. His brief break on *Way Downtown* is simply four or five seconds of perfect fiddling.

Way Downtown, in fact, is my favorite cut in the whole kaboodle, not mainly because of Vassar's work, but mainly because of Doc Watson's work. If the project has a star, he's it—unquestionably the greatest flat-picker alive. Doc hits some licks in *Way Downtown* that will, if you have half a gram of music in your soul, knock the breath out of you, bring tears to your eyes, and make you involuntarily utter "Holy —!" while bringing your fist down hard on the chair arm. He sings *Tennessee Stud* with great feeling and warmth too, and again in *Black Mountain Rag* he sends thumb, forefinger,

and pick rippling over the strings, hitting the guitar eight or nine times in the time it takes an ordinary mortal to hit it twice or thrice—and each lick is perfect in timing and tonal relationships with the other licks. He *can't* be doing this. The pistons in a Porsche don't move this well. The most moving moments in this album are Doc Watson's.

And there are many moving moments that make it all worth the trouble: this is what it's all about, and whether Roy Acuff can still come upon B-flat cold and hit it squarely is beside the point. There are several selections I can do without, and there are places where the production is a problem (though not many, considering that the whole thing was mixed live with all the musicians playing at the same time, and no overdubbing). But this is still a big, bold, important sampler of traditional country music (nary an electric instrument in it anywhere), which, like an encyclopedia, can be edited by its user. It can communicate something of the joys and sorrows of this music come down from the mountains to a lot of us down here in the old Teeming Milieu.

What else is there to say? Nice shot, Bill McEuen. You done all right.

WILL THE CIRCLE BE UNBROKEN. Nit-tty Gritty Dirt Band (vocals and instrumentals); Maybelle Carter (vocals, guitar, auto-harp); Earl Scruggs (banjo, guitar); Doc Watson (vocals, guitar); Roy Acuff (vocals); Merle Travis (vocals, guitar); Jimmy Martin (vocals, guitar); Vassar Clements (fiddle); Junior Huskey (bass); Norman Blake (dobro); Pete "Oswald" Kirby (dobro). *Grand Ole Opry Song; Keep on the Sunny Side; Nashville Blues; You Are My Flower; The Precious Jewel; Dark as a Dungeon; Tennessee Stud; Black Mountain Rag; Wreck on the Highway; The End of the World; I Saw the Light; Sunny Side of the Mountain; Nine Pound Hammer; Soldier's Joy*; and twenty-three others. UNITED ARTISTS UAS 9801 three discs \$11.98, © 04053 & 04054 \$7.98 each.

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Geremia); *Belles of Cheyenne* and *The Blackbird* (Bob and Evelyne Beers); *The Blacksmith* (Lou Killen); *The Clog Hornpipe* and *Harvest Home* (High Level Ranters); *Come on Friend* (Rosalie Sorrells); *Giovanni Montini, the Pope* (Patrick Sky); *Blue Birds Singing in the Blue Ridge Mountains* (Bottle Hill); *Whore's Lament* (Hedy West); *Daddy, What's a Train?* (Bruce Phillips); *Sweet Little Café in a Square* (Lena Spencer); and *Tarry Not* (Frank Wakefield). BIOGRAPH BLP 12046 \$5.98.

Performance: **Cozy**
Recording: **Location job**

In the little upstate New York town of Saratoga Springs, where the rich once went to take the waters and culture-hounds now go to attend performances at the Performing Arts Center, there stands a rickety old building housing a small café. The wood-burning stove doesn't provide much heat on a blustery night but the personal warmth of its proprietor, a woman named Lena Spencer—who looks like Cass Elliot and smiles like an angel—has been known to melt the snow for blocks around. To the Caffè Lena come performers from all over the country—banjo-players and folk-singers from the Blue Ridge Mountains, traveling choruses, Irish harpists, and Indiana song-birds. Even Bob Dylan and John Hurt have made their way to Lena's, it is said, for the ambiance there attracts just the right mixture of "working folks" and students from Skidmore to bring out the best in an old folkie. In fact, the air is so thick with *Gemütlichkeit* at the Caffè Lena that you can cut it with a knife (or eat it with a spoon).

With characteristic generosity, Lena's admirers got together recently to pool their talents and make a record of the entertainment at the Caffè Lena, with the profits to go to the sometimes hard-pressed owner. They accumulated thirty hours of tape, and the results are to be heard in this one-hour album. The recording was done "live," as they say, so you can even hear the customers applauding and mumbling in the background. Michael Cooney gets things going with *Lena, Won't You Open Your Door*. I liked Hedy West's straight-faced treatment of the *Whore's Lament* and Bruce Phillips' western-style *Daddy, What's a Train?* (for kids who never saw one), as well as Frank Wakefield singing *Tarry Not* and the mountain music of a group called Bottle Hill. Patrick Sky is diverting in the comically irreverent *Giovanni Montini, the Pope* and Rosalie Sorrells is folksily nasal in *Come on Friend*. A group called the High Level Ranters offers a hornpipe, Bill Vanaver sings *Cluck Old Hen* to a homely accompaniment on harp and fiddle. Bob and Evelyne Beers pluck out traditional tunes on another harp, Paul Geremia contributes a ballad about an "elegant hobo," and Lou Killen sings *The Blacksmith*—all down-to-earth Americana that makes the time pass wholesomely. One can understand why the Caffè Lena is a favorite haunt for local visitors. There's nothing hair-raisingly distinguished on the program, but it is all certainly worth a listen, and I hope the proceeds buy Lena the new stove she hopes for—though the atmosphere sounds quite warm enough in her coffee house as it is.

P.K.



JAZZ

RECORDING OF SPECIAL MERIT

MILES DAVIS: *On the Corner*. Miles Davis (trumpet); unidentified instrumentalists. *On the Corner; New York Girl; Thinkin' One Thing and Doin' Another; Vote for Miles; Black Satin; One and One; Helen Butte; Mr. Freedom X*. COLUMBIA KC 31906 \$5.98, © CA 31906 \$6.98. © CT 31906 \$6.98.

Performance: **Trail-blazing**
Recording: **Excellent**

Younger in ideas than in age, Miles Davis—at close to forty-seven—continues to forge ahead, leaving no sound unexplored and abandoning those that are overexplored. Gone are the icy sustained notes he so effortlessly squeezed out of his horn until they melted in your ears (pale echos still reverberate in such groups as Blood, Sweat & Tears); gone is the soaring, breakneck mute; and, in fact, gone are the solos. It is like the murmur of a cocktail party set to music: members of Miles' groups have their say collectively as fragments of individual statement occasionally rise above the overall sound, and the individual expressions form one beautiful, coherent whole that works most of the time. In the case of this album, it works throughout.

"On the Corner," like most of Miles' recent albums, is made up of extracts from more extended performances. Hours and hours of tapes, recorded at different times, in different places, with different personnel, are edited down to segments of varying lengths (1:32 to 16:06 in this case), creating a nightmare for future discographers but skimming off the cream for the listener. This, of course, explains why the album lists neither personnel nor dates. But, in the final analysis, it is the music that is most important, and this is an important album. C.A.

ART FARMER: *Gentle Eyes*. Art Farmer (flugelhorn); Jimmy Woode (bass); members of the Austrian Broadcasting Corporation Orchestra. Johannes Fehring cond. *A Time for Love; Didn't We; Soulsides; So Are You; Song of No Regrets; Gentle Rain*; and four others. MAINSTREAM MRL 371 \$5.98, © M 8371 \$6.98, © M 5371 \$6.98.

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

Ten or fifteen years ago, when the simple blues chords, one-finger piano exercises, and inane lyrics of overnight rock-'n-roll sensations drove ivy leaguers to Bach and Mozart or Brubeck and Miles, when all sports cars were foreign, and hi-fi was the latest in sound, a generation of post-bop jazzmen were enjoying relative prosperity. They weren't exactly getting rich, but there was plenty of recording activity, and jazz clubs were numerous—at least no one had sounded the death knell for jazz. Then folk music became the thing, rock came of age, took over some of jazz's stau-

chest fans and "devoted" critics, and sent some of our finest jazz exponents into European exile.

Art Farmer, a veteran of post-War jazz, came into his own in the late Fifties, developed a wide following as co-leader (with Benny Golson) of the Jazztet—a swinging little group that included his late brother Addison on bass—formed another happy union with guitarist Jim Hall, and began a slow fade from the scene. In recent years much of his activity has been centered in Europe, where this album was recorded with former Ellington bassist Jimmy Woode—who migrated to Europe around 1960—and staff musicians of the Austrian Broadcasting Corporation. The result, a blend of Farmer's mellow tone and lyrical style with a lush background of strings and horns, is quite prepossessing. The arrangements get a bit mushy at times, and some of the material is less than memorable, but Farmer's statements are meaningful throughout, rescuing at least two tunes on which a lesser soloist might easily ride to oblivion. Incidentally, the album also credits a vocalist named Stephanie, but fortunately she is heard only briefly, singing the four words of the first cut's title.

"Gentle Eyes" is not destined to become a jazz classic—nor does it have such pretensions—but it is a very pleasant album which does full justice to the artistry and imagination of Art Farmer. C.A.

STAN GETZ: *Communication '72*. Stan Getz (tenor saxophone); instrumental and vocal accompaniment. Michel Legrand, arr. and cond. *Communication '72; Outhouse Blues; Now You've Gone; Back to Bach; Nursery Rhymes for All God's Children; Soul Dance; Redemption; Flight; Moods of a Wanderer; Bonjour Tristesse*. VERVE V6 8807 \$5.98.

Performance: **One swell foop**
Recording: **Good**

I remark elsewhere in this issue that I think Stan Getz is a true and pleasing talent and personally a very nice guy. I am sure that he and Michel Legrand entered into collaboration on this album with the best of intentions. Legrand wrote all the tunes and arranged and conducted the vocal and string sections behind Getz's sax. Unfortunately, Legrand and Getz just seem to get in each other's way. Legrand's orchestrations are, to put it mildly, lush. They are also cluttered: while the strings sigh, girls sing Baroque diddybop in the background. Even with all this mush, though, Getz is still his razor-sharp self. His improvisations manage to cut through the tepid gingerbread that Legrand has half-baked; sometimes he seems to ignore the overblown silliness of what is going on around him and just sails off by himself.

The situation Getz is in here reminds me somewhat of when Bix Beiderbecke played with Paul Whiteman's orchestra during the twenties. Whiteman's arrangers were talented and experienced men—as Legrand is—but sometimes they went nearly berserk in their overarranging of pop tunes. Bix would leap in and, whenever he could, make musical sense of things. Getz tries hard here, but the paste is too thick. He is at his best in a slugging, small-band format, and I eagerly await the next album—"Captain Marvel," the one he mentioned to me in the interview—which finds him there. J.V.

(Continued on page 108)

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THEATER • FILMS

DON'T BOTHER ME, I CAN'T COPE (Micki Grant). Original-cast recording. Micki Grant, Alex Bradford, Hope Clarke, Bobby Hill, Arnold Wilkerson, others (performers); Danny Holgate arr. and cond. POLYDOR PD 6013 \$6.98. © 8F 6013 \$6.98. © CF 6013 \$6.98.

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

A new phenomenon on the current Broadway stage is the sudden rash of virtually plotless musical entertainments that portray the emotions, frustrations, and general block-party atmosphere of the black experience. This particular addition to the genre is more original and tuneful than most, and though it doesn't add up to much as a theatrical experience, it does provide some isolated moments of joy on record. Most of those moments occur when a dynamo named Micki Grant steps to the microphone and sings about her soul in *Questions, It Takes a Whole Lot of Human Feeling*, and others. Miss Grant is a delight. But sadly enough, there are a lot of organs and tambourines and songs about slavery and old Pharoah (!) to get through before she finally saves the day (and the album) from total banality on side two. *Don't Bother Me, I Can't Cope* means well. Only through repeated exposure to black emotions can we become fully aware of the truth in their cries, and this show does it better than most. Its performers have wit, talent, and savvy. But it's a well-traveled road, and I'm beginning to feel an awful lot of ruts. *R.R.*

JOURNEY THROUGH THE PAST (Neil Young). Neil Young (vocals, guitar, piano); Buffalo Springfield (vocals and instrumentals); Crosby, Stills and Nash (vocals and instrumentals); Stray Gators (instrumentals); Tony and Susan Alamo Christian Foundation Orchestra and Chorus. *Mr. Soul; Rock & Roll Woman; Find the Cost of Freedom; Ohio; Southern Man; Alabama; Words*; and seven others. REPRISE 2XS 6480 two discs \$6.98.

Performance: **Often fascinating**
Recording: **Variable**

Yes, we've all been disappointed with "rock documentary" films, most of which have tried to tell people how they *should* behave instead of reporting on how some people *were* behaving. Perhaps as a result Neil Young made his own "Journey Through the Past" too late for it to get a fair hearing. Still, Neil Young is Neil Young, looking more like one of a kind all the time, and this soundtrack album does seem to have a genuine documentary quality in the old, only moderately corrupted sense of the word. It amounts to a sampler of Neil's work with the great Buffalo Springfield, featuring a hard-hitting live performance of *Mr. Soul*; with Crosby, Stills and Nash, featuring a long, live, best-ever-recorded version of *Ohio*; and with the Nashville studio musicians

who, for the duration of Neil's "Harvest" album at least, called themselves the Stray Gators. There's also a tentative encounter with religion (I had not seen the film when this was written) and a Brian Wilson instrumental whose place in the grand scheme eludes me.

In a sense, the album contains little that's new—but in another it serves up something just as valuable: presence, the feel of Young doing things before your eyes as opposed to his having canned them for you. With most of today's troubadours, the latter is to be preferred, but not with Young; it always turns out to be a fine thing to watch a person at work—if that person has a passion for his work and is good at it. Neil is.

Here we have *Words* (occupying a whole side) and *Alabama* outtakes from the "Harvest" album, both broken in the middle for discussions about the arrangements. *Words* is a fine mood piece, but the section heard here is too long, and side four, containing bits of conversation and splices by the Christian Foundation Orchestra and Chorus, is too much a hodge-podge to make much sense as an album side. But I find myself playing a good percentage of the album again and again, in spite of having heard most of the songs for years. At a time when so many entertainers sound progressively worse the closer we get to them in the flesh, here's one who would sound best of all sitting in your living room. *N.C.*

1776 (Sherman Edwards). Original soundtrack recording. William Daniels, Howard da Silva, Ken Howard, Donald Madden, Blythe Danner, John Collum, Roy Poole, David Ford, and Virginia Vestoff (vocals); Ray Heindorf, cond. COLUMBIA S 31741 \$5.98, © SA 31741 \$6.98. © ST 31741 \$6.98.

Performance: **Piddle, twiddle, twaddle**
Recording: **Very good**

The story of the American Revolution is as thrilling to me as it is to the next man, and I certainly have no wish to be accused of a lack of red-blooded patriotism. I must confess, though, that *1776*, which ran for a thousand performances on the New York stage, won the Tony Award and the New York Drama Critics' Circle Award as "Best Musical" in 1969, and as a movie packed them into Radio City Music Hall for months on end, leaves this particular American, if not downright ill, as cold as a cod. This high-school pageant disguised as entertainment has a marvelous cast and a foolproof plot, but there must be a better way to deal with history than having Benjamin Franklin, Thomas Jefferson, and John Adams scamper about the screen mouthing silly rhymes, and a jumping-jack chorus of delegates to the Continental Congress acting like some road company revival of *Of Thee I Sing*. The tunes from *1776* tended to leave my head as quickly as I heard them. *Piddle, Twiddle and Resolve, The Lees of Old Virginia and Yours, Yours, Yours* also all struck me despite the expert performances echoed on this original-soundtrack recording, as unspeakably slick and cute.

It was only toward the end of the album, when John Collum, as the representative from South Carolina, sings the anti-slavery song *Molasses to Rum* that I felt I was in persuasive hands. In fact, side two of the record, where the material seems to become less expositional and more interesting musically, sounded rather more absorbing to these prejudiced ears than side one, where the bouncy

ballads came across as more suitable for Pooh's friend Tigger than for our founding fathers. *Momma Look Sharp*, beautifully projected by Stephen Nathan as the Courier, is as valid an anti-war song as any attempted in recent years, and *The Egg* certainly brings out the best from Mr. Da Silva, Mr. Daniels, and Mr. Howard. But in the final moments of the score, when the event is no less than the signing of the Declaration of Independence, Mr. Edwards' simpering music not only fails to rise to the occasion but sullies it with a mediocrity characteristic of the entire enterprise. I hope that its mediocrity has not been the sole reason for its popularity. *P.K.*

VIRGIN—A Rock Opera (John O'Reilly). The Mission (arr. and performers). PARAMOUNT PAS 8000 two discs \$9.96.

Performance: **Naiveté in the nave**
Recording: **Good**

In *Virgin*, the virgin in question is not Mary but a young priest who decides to give up the Catholic Church for the nun he loves. Well, I suppose that, having made the passion of Christ "relevant" in the flat, simplistic language of *Jesus Christ Superstar*, it was inevitable that the younger generation would turn to Christianity for further creative inspiration. *Virgin* was the "rock opera" chosen to reopen the former Fillmore East in New York as the Village East last November, and from what I could gather by watching the television news coverage of that event, there wasn't a soul in the audience much over fourteen. I suspect that even this crowd was somewhat overage for the occasion, for if the language of *Jesus Christ Superstar* might be called elementary, *Virgin*—mostly written and composed by a Catholic priest, Father John O'Reilly—is virtually baby talk.

According to a foreword in its own libretto (a handsome edition of which is included in the set), *Virgin* "describes the paradox of modern religion: does a man follow his custom or his conscience?" Father O'Reilly, however, is not content to let his lofty message go at that. He must pause on the way to deliver other little messages, simple-minded sermonettes touching all the bases of contemporary concern: child neglect, war, drug addiction, birth control, pollution, and what have you. Only when the opera is half over does our Young Priest exchange glances with the Young Sister, as "celibacy meets love." "Deep in that moment," sings a chorus of narrators, "a priest and sister saw/Man in love with woman, despite religious law." Robert Louis Stevenson couldn't have put it better. In the final apocalyptic scene, Young Sister and Young Priest assert their faith "despite all its flaws and man-made laws" and look forward to a life of love, religious action, and a "chance to arrange it better."

If the plot and the lyrics of *Virgin* attempt to touch all the topical bases, Father O'Reilly's music goes his words one better. The score is an incredible soup of Gregorian chant, folk-rock, soul, gospel, and that flagellating, stupefying beat we have come to associate with contemporary musical experiments. *Virgin* has a few touching passages—*No More Silence* and *Lost Love*—but for the most part the score is as stubbornly mindless as the language. All the energy of the Mission, a willing and devoted team of singers and musicians who sound as though they must adore every tired note and word in the piece, cannot conceal the void at its core. *P.K.*



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"Sooner or later," began an editorial in the New York *Mirror*. "the hepcats had to go berserk at Newport." The year was 1960, and twelve thousand kids had just buried the Newport Jazz Festival under a mountain of beer cans. Jazz, echoed the media around the country, had been struck a severe blow by its own fans, and there would certainly be no more jazz festivals after this; even *Down Beat* magazine pronounced the Newport festival dead. The ugly incident (or rather the distorted accounts of it) did immeasurable harm to jazz, but the music and the annual Newport event survived to see the *Mirror* succumb.

In 1961 the famous festival was still in business, and it stayed alive and well in Newport for a decade, but, finally—after a meaningless attack by hate-filled, destructive members of the "love generation"—it picked up the pieces and moved to New York City in the summer of 1972. It was a bold move, and most people said it wouldn't work: Newport jazz without camp chairs and sunsets on the beach would be no festival at all.

Indeed, the atmosphere was missing from last year's Newport in New York, but—as evidenced by Cobblestone's six-record series—there was no dearth of good jazz. Not that these records are uniformly great, nor do they represent the cream of the '72 Newport crop, but if you like your jazz straight and swinging, Volumes 1 through 4—recorded at Radio City Music Hall—belong on your shelves.

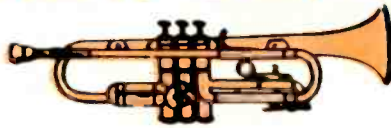
Jam sessions were originally happenings that brought together musicians who normally didn't have a chance to play together. They were unpredictable and exciting. The first organized one to go on records featured members of the Count Basie, Duke Ellington, and Benny Goodman bands playing at Goodman's famous 1937 Carnegie Hall concert. Then, with Norman Granz's Jazz at the Philharmonic series, jam sessions became institutionalized. The Newport '72 sessions are a throwback to JATP, combining newcomers with established stars and such JATP veterans as Howard McGhee and Illinois Jacquet, and the result is some good fun and excitement, well preserved on sixteen-track equipment. Producer Don Schlitten has cleverly banded the jam session sides, making it possible to pick out individual solos at a glance (something I don't believe has been done before), but it would be hard for me to recommend one cut more than another on the first four discs.

Volume 5 was recorded in Yankee Stadium under less favorable technical conditions, but the sound is generally good. Less interesting generally than the first four, it does bring us a fascinating meeting between guitarist Kenny Burrell and B. B. King, their interplay being particularly noteworthy on *Please Send Me Someone to Love*. Zoot Sims' solo is one of the highlights of Dizzy Gillespie's classic *Blue 'n Boogie*, and Roy Haynes, a sadly underrated drummer, provides exciting rhythmic support from beginning to end. Volume 6 is the commercial one. Not a jam session, it features cuts by Billy Eckstine and various artists who have achieved success on the popular market in recent years. The opening selections by Eckstine are fine, particularly his old blues hit *Jelly Jelly*, on which he is joined by Diz-

zy Gillespie, Sonny Stitt, and Kai Winding, but I can see no reason for including Curtis Mayfield—who does two numbers from the movie *Superfly*—except that he is under contract to the company that released these albums. B. B. King's *I Need My Baby* does him justice. Herbie Mann and Les McCann give good, but routine, performances, and Roberta Flack would have been better off had her *Ain't No Mountain High Enough* not been included (she tried unsuccessfully to have her recordings withheld). *Somewhere*, on the other hand, is very pleasant, though it does not measure up to her Atlantic recordings.

▲▲▲

NEWPORT IN NEW YORK



1972's
Portable Jazz Festival
Preserved on Six Discs

Reviewed by
CHRIS ALBERTSON



I suppose Volume 6 will be the most commercially successful set, and perhaps No. 5 will do well because of Jimmy Smith, but the first four make the whole project worthwhile—jam sessions of that style will not be with us much longer. It's too bad, however, that someone didn't record some of the other Newport events, such as the last performances of Don Byas, or the Benny Carter band. Also missing is the sound of today's young jazz, a sound Newport all but ignored. Nostalgia was the theme of last year's festival, and much of it was good nostalgia, but we should not bemoan the "death" of jazz while we stunt its growth by turning our backs on those who are currently leading it on. The music in these albums is today's music, but it is only a part of the picture. I would have liked to have seen Volume Six devoted to the likes of Cecil Taylor, Lonnie Liston Smith, and Joe McPhee, the neglected explorers. It would have made the package more nearly complete.

NEWPORT IN NEW YORK '72: *The Jam Sessions, Vols. 1 and 2.* *Jumpin' at the Woodside; Lo-Slo Bluze.* Cat Anderson and Jimmy Owens (trumpet); Charles McPherson (alto saxophone); Buddy Tate (tenor saxophone); Milt Buckner (organ); Roland Han-

na (piano); Charles Mingus (bass); Alan Dawson (drums). *Bags' Groove; Night in Tunisia.* Dizzy Gillespie (trumpet); Benny Green (trombone); Stan Getz (tenor saxophone); Milt Jackson (vibraphone); John Blair (violin); Kenny Burrell (guitar); Mary Lou Williams (piano); Percy Heath (bass); Big Black (congas); Max Roach (drums). COBBLESTONE CST 9025 two discs \$7.95.

NEWPORT IN NEW YORK '72: *The Jam Sessions, Vols. 3 and 4.* *Perdido; Misty; Now's the Time.* Joe Newman and Nat Adderley (trumpet); Illinois Jacquet and Bud Johnson (tenor saxophone); Tyree Glenn (trombone); Gerry Mulligan (baritone saxophone); Jaki Byard (piano); Chubby Jackson (bass); Elvin Jones (drums). *Blue Boogie.* Clark Terry and Howard McGhee (trumpet); Sonny Stitt and Dexter Gordon (tenor saxophone); Gary Burton (vibraphone); Jimmy Smith (organ); George Duke (piano); Al McKibbin (bass); Art Blakey (drums). *So What.* Harry Edison (trumpet); Kai Winding (trombone); Dexter Gordon and Zoot Sims (tenor saxophones); Rahsaan Roland Kirk (tenor saxophone, stritch, manzello, whistle); Herbie Hancock (piano); Chuck Wayne (guitar); Larry Ridley (bass); Tony Williams (drums). COBBLESTONE CST 9026 two discs \$7.98.

NEWPORT IN NEW YORK '72: *The Jimmy Smith Jam, Vol. 5.* *Blue 'n Boogie; Medley: What's New! Since I Fell for You; The Man I Love; Ode to Billie Joe; Please Send Me Someone to Love.* Joe Newman and Clark Terry (trumpet); Illinois Jacquet and Zoot Sims (tenor saxophone); Jimmy Smith (organ); B. B. King and Kenny Burrell (guitar); Roy Haynes (drums). COBBLESTONE CST 9027 \$5.98.

NEWPORT IN NEW YORK '72: *The Soul Sessions, Vol. 6.* *I Apologize; Jelly Jelly.* Billy Eckstine (vocals); Dizzy Gillespie (trumpet); Kai Winding (trombone); Sonny Stitt (tenor saxophone); Bobby Tucker (piano); Art Koenig (bass); Charlie Persip (drums). *Stone Junkie; Pusherman.* Curtis Mayfield (vocals and lead guitar); Craig McMullen (guitar); Lucky Scott (bass); Master Henry Gibson (bongos, congas); Scott Harris (drums). *I Need My Baby.* B. B. King (vocals and guitar); Ed Rowe (trumpet); Joseph Burton (trombone); Earl Turbinton (alto saxophone); Bobby Forte (tenor saxophone); Louis Hubert (baritone saxophone); Ron Levy (piano); Milton Hopkins (guitar); Wilbert Freeman (bass); Sonny Freeman (drums). *Hold On I'm Comin'.* Herbie Mann (flute); David "Fathead" Newman (tenor saxophone); Pat Rebillot (electric piano); Sonny Sharrock (guitar); Andy Muson (bass); Reggie Ferguson (drums). *The Price You Got to Pay to Be Free.* Les McCann (vocals and piano); David Spinnoza (guitar); Jimmy Rowser (bass); Buck Clarke (congas); Donald Dean (drums). *Ain't No Mountain High Enough; Somewhere.* Roberta Flack (piano and vocals); Richard Tee (electric piano); Eric Gayle (guitar); Terry Plumeri (bass); Jerry Jemmott (Fender bass); Ralph MacDonald (percussion); Grady Tate (drums). COBBLESTONE CST 9028 \$5.98. Complete set of six discs available as CST 9032-6 \$24.98.

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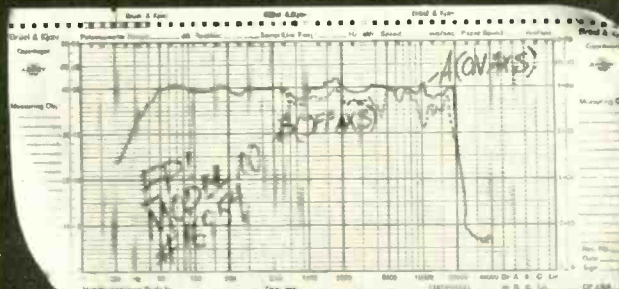
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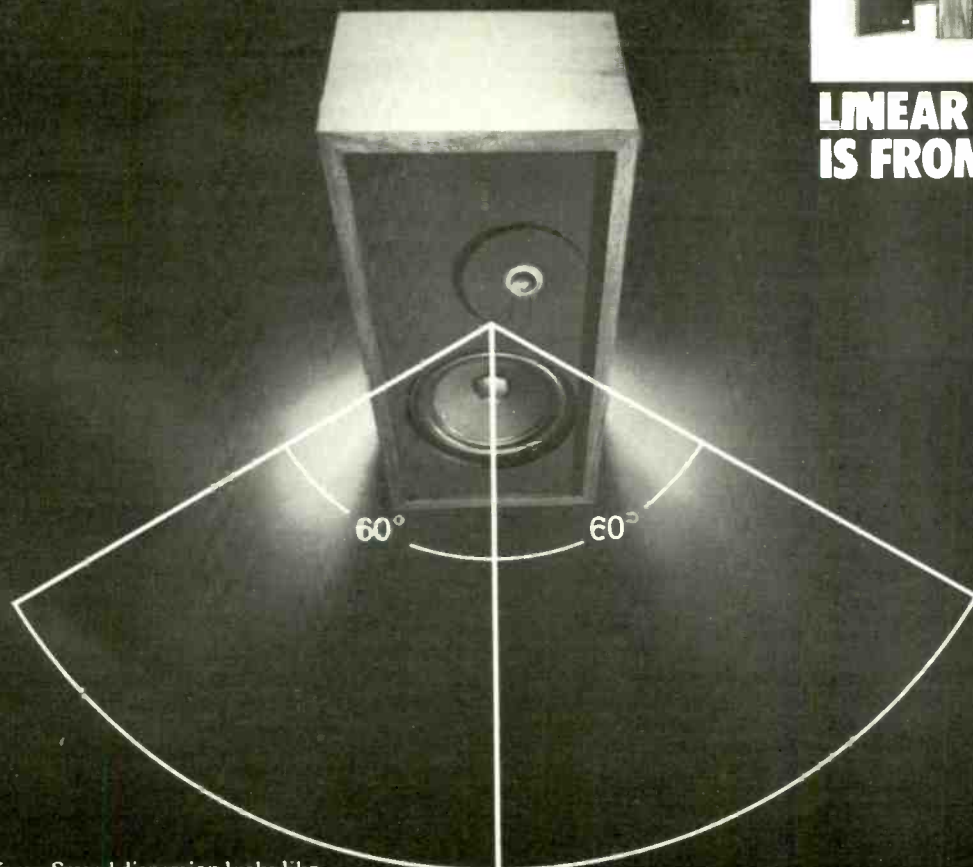
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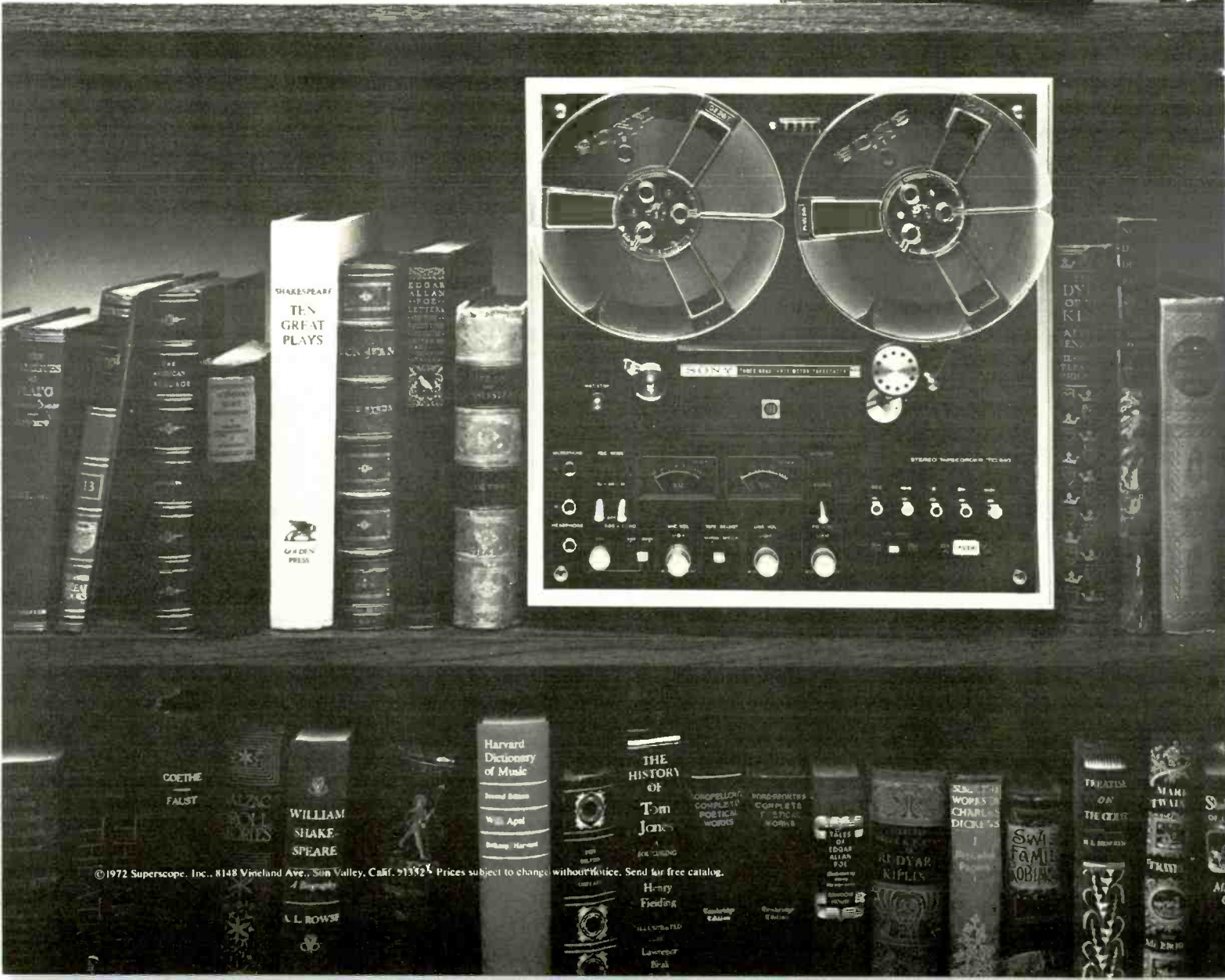
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RECORDING OF SPECIAL MERIT

BACH, J. S.: *Cantatas: No. 17, "Wer Dank opfert, der preiset mich"; No. 18, "Gleich wie der Regen und Schnee vom Himmel fällt"; No. 19, "Es erhub sich ein Streit"; No. 20, "O Ewigkeit, du Donnerwort."* Soloist of the Wiener Sängerknaben (soprano); Paul Esswood (counter-tenor); Kurt Equiluz (tenor); Max van Egmond (bass); Wiener Sängerknaben; Chorus Viennensis (Hans Gillesberger dir.); Concentus Musicus of Vienna, Nikolaus Harnoncourt cond. TELEFUNKEN SKW 5/1-2-T BR 2 two discs \$11.96.

Performance: **Maintains high standard**
Recording: **Superior**

BACH, J. S.: *Cantata No. 20, "O Ewigkeit, du Donnerwort"; Cantata No. 168, "Tue Rechnung! Donnerwort!"* Nancy Burns, soprano, in No. 168; Verena Gohl (alto); Martha Kessler (alto, in No. 20); Theo Altmeyer (tenor); Adalbert Kraus (tenor, in No. 20); Wolfgang Schöne (bass, in No. 20); Siegmund Nimsgern (bass, in No. 168); Hermann Sauter (trumpet, in No. 20); Bach Collegium, Stuttgart; Frankfurt Kantorei. Helmuth Rilling cond. MUSICAL HERITAGE SOCIETY MHS 1281 \$2.99 (plus 65¢ mailing and handling charge, from Musical Heritage Society, Inc., 1991 Broadway, New York, N. Y. 10023).

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

Volume Five of Telefunken's projected complete Bach cantata series contains, respective-

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- Ⓡ = reel-to-reel stereo tape
- Ⓢ = eight-track stereo cartridge
- Ⓒ = stereo cassette
- Ⓛ = quadrasonic disc
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- Ⓒ = quadrasonic cassette

Monophonic recordings are indicated by the symbol Ⓜ

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

ly, cantatas for the fourteenth Sunday after Trinity ("He who offers up thanks praises me"), Sexagesima Sunday ("As the rain and snow from Heaven falls"), the Feast of St. Michael ("There arose a fight"), and the first



KURT EQUILUZ
Expressive tenor in Bach cantatas

Sunday after Trinity ("Oh, eternity, thou word of thunder"). Number 18, dating from Bach's Weimar years, is particularly interesting because of the composer's orchestration (no violins at all) and its connections with the Italian concerto form. Number 19, which deals with the Archangel Michael's battle with the infernal dragon, is especially noteworthy for its opening choral fugue. Number 20, another choral cantata, is the most extended of this group and, with each of its two parts opening in French-overture style, has uncommon power.

All four cantatas are splendidly done by Harnoncourt and his experienced instrumental and vocal soloists. His treatment of Bach avoids the heaviness that so often obscures the dance rhythms of these works. In reviewing past volumes of this important series, I have not mentioned the recitative style used

in these interpretations, which includes a quite straightforward, unsentimental treatment of the text and proper variation in tempo. The most singular aspect of all is that the normally held long notes in the bass and keyboard parts are played in a highly *secco* manner, being cut off almost as soon as they are sounded. It may not be to everybody's liking, although Harnoncourt makes a very good historical case for his adoption of this style. For a good example, try the recitatives in Nos. 19 and 20.

One criticism I have of these performances is that there are moments when Harnoncourt seems so intent on ridding Bach of nineteenth-century encrustations that he tends toward coolness. There is, however, no lack of incisiveness or expressivity—as, for example, in Kurt Equiluz's contributions. I wish, though, that the soloists from the Vienna Boys' Choir could be encouraged to trill whenever it is required; it sounds silly to have an instrument do it properly in imitation of what the boy *should* have done a moment before—and this in a set that prides itself on an authentic, historical approach! The album includes the complete scores with corrections of the Gesellschaft edition indicated, as well as texts, translations, and extensive commentary. The sonic reproduction of the discs, as usual, is exemplary.

The Musical Heritage Society recording, by way of the German firm Claudius, contains the only separately available version of Cantata No. 20 plus the *only* version of No. 168. The Gospel for the Ninth Sunday after Trinity on which it is based gives Bach a fine opportunity to deal with the lament of the unjust steward and the promise of Judgment Day, especially in the exciting bass aria that opens the work. Rilling, an experienced Bach conductor, is generally less intent on stylistic accuracy (double-dotting and cadential trills for instance) than Harnoncourt. He is also more lyrically inclined, with a heavier and more plodding bass line. Excitement does come through, however, and anyone wishing a commendable recording of either of these two cantatas would do well to investigate this one. Of the soloists here, Theo Altmeyer, the tenor, and Siegmund Nimsgern, the stentorian bass in No. 168, are especially good. The sonic

BEETHOVEN'S THIRTY-TWO SONATAS INTERPRETED BY CLAUDIO ARRAU

Unfailingly beautiful, absurdly inexpensive,
and flawlessly pressed recordings

Reviewed by **BERNARD JACOBSON**



CLAUDIO ARRAU is a pianist to whom justice is rarely rendered, perhaps because it is too easy to praise his performances in negative terms. "Arrau never makes the mistake of doing x" or "Arrau never fails to observe y" can be perfectly fair observations, but they are not the sort of remark that conveys white-hot enthusiasm. Arrau's near-impeccable taste—his air of having thought of everything—indeed lends itself to colorless eulogy of this kind. But if ever an occasion called for stronger words, it is the release—for the first time as an integral set, at an absurdly inexpensive special price, on flawless imported Philips pressings—of his performances of all the Beethoven sonatas. Let me be wildly categorical about it and say that I don't think any other current version of the complete sonatas can match this monumental set.

When my colleagues David Hall and Lester Trimble reviewed two of the four smaller volumes (on much inferior domestic pressings) in which these thirteen discs were formerly available, they praised them—both, interestingly, choosing the word "poised" to express their respect—but obviously felt substantial reservations, and understandable ones. It is true, as they observed, that Arrau's tempos are sometimes on the slow side, and that, as a result, some of the inherent kinetic energy of such movements as the finale of the "Appassionata" Sonata is dissipated. But listening to Arrau's readings of the thirty-two sonatas as a totality (and in superb piano sound reproduced from exceptionally quiet surfaces), I have found their impact quite overwhelming.

The most remarkable aspect of the playing is that it is unfailingly "beautiful" and yet at the same time—if I may put it rather oddly—unpianistic in the best sense. I mean that Arrau is concerned, above all, with the musical argument, and much less with conventional notions of what a piano ought to sound like. The clearest technical expression of this ordering of priorities is to be found in his pedaling: unusually light and crisp, it is designed to reveal the musical fabric with the greatest possible clarity, rather than to cast a romantic haze over it. Yet Arrau's technique is so close to perfect that he is able to achieve his aim without ever sacrificing beauty of tone or luminosity of texture.

This, in a nutshell, explains the difference between Arrau's performances and the two best among the other complete sets at present available—Artur Schnabel's on Seraphim and Daniel Barenboim's on Angel. Schnabel had a similar concern for clarity, but at the time he recorded

these works his technique was simply not the equal of Arrau's, so that in his case "integrity" is characterized by its habitual accompanying adjective, "gritty." Arrau gives us the integrity without the grittiness. Barenboim, on the other hand, though often Arrau's peer in imagination (surpassing him, indeed, in the variation movements of the late sonatas), tends to envelop the music in a more traditional romantic glow of richly pedaled resonance, and this, particularly in the early sonatas, reduces the sharpness of musical characterization and makes each piece sound too much like its companions.

ARRAU is not—no one man could be—equally convincing in all thirty-two sonatas. The relative weak spots of his cycle are, I think, the "Appassionata" and the "Hammerklavier," in the fast movements of which waywardness of tempo seems symptomatic of a certain lack of the interpretive focus that is so striking elsewhere. Beyond that, there are of course places where Schnabel or Barenboim make a point more tellingly, or where one or another of the individual performances in the catalog makes a special claim for attention—I think particularly of Ivan Moravec's sublime "Pastorale" and Opus 90 performances on Connoisseur Society, of Sviatoslav Richter's Opus 31, No. 2, on Angel and Opus 54 on RCA Victorola, and of Charles Rosen's marvelous Columbia set of the last six sonatas. Alfred Brendel's Vox set is also full of good things, but it is not representative of this great pianist's gifts at their current best—for that, we will have to await the arrival of his new projected cycle on Philips.

But as an overall view of Beethoven's piano-sonata *oeuvre*, Arrau's seems to me unrivaled. And it has the further rare distinction of observing every single repeat (including second repeats in the early sonata-form movements)—a policy of great value in documenting Beethoven's thought, even though some may question the purely musical return in a number of the less substantial movements. To my mind, it is the comparatively minor pieces among the sonatas that demonstrate Arrau's achievement perhaps even more strikingly than the obvious masterpieces: to be able to make the moment of recapitulation in the "Easy Sonata," Op. 49, No. 2, as compelling a musical "event" as he does is to possess the powers of a very great musician indeed.

BEETHOVEN: Piano Sonatas (complete). Claudio Arrau (piano). PHILIPS 6747 009 thirteen discs \$39.95.

reproduction is satisfactory, and the Musical Heritage Society, in what must be an outburst of competitive energy, has provided not just texts and translations but two long, intricate sheets of annotations containing an analysis of Bach's symbolism and musical examples.

Incidentally, what ever happened to Cantata No. 15 in Telefunken's series? It was not included in Vol. 4, but Vol. 5 doesn't contain it either. I.K.

RECORDING OF SPECIAL MERIT

BACH, J.S.: Concerto for Two Violins, in D Minor (BWV 1043); Concerto No. 2, in E Major (BWV 1042); Concerto in G Minor (ed. Schreck from Clavier Concerto in F Minor, BWV 1056). Itzhak Perlman and Pinchas Zukerman (violins); English Chamber Orchestra. Daniel Barenboim cond. ANGEI S 36841 \$5.98, Ⓢ 8XS 36841 \$6.98, Ⓢ 4XS 36841 \$6.98.

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

If you find the Harmoncourt recordings of the Double and E Major Concertos for Telefunken a bit scrawny despite the Baroque authenticity, the Perlman-Zukerman-Barenboim collaboration may be just the right antidote (Perlman is soloist in the E Major Concerto; Zukerman plays the Gustav Schreck reconstruction for violin derived from the F Minor Clavier Concerto, the only other recording of which is Lautenbacher's on Turnabout 34102). These performances strike me as a modern-day counterpart to the late Edwin Fischer's recordings with piano of the Bach clavier concertos—superbly musical in their rhythmic vitality and lyrical feeling, but essentially Romantic in ambiance. Barenboim does go along with Baroque performance practice to the extent of employing harpsichord continuo (richly arpeggiated into the bargain); but I doubt that Bach or his contemporaries ever heard this music played with such tonal richness on the part of both soloists and orchestra. Within this frame of reference, however, the package adds up to gorgeous music-making, gorgeously recorded. D.H.

BACH, J. S.: Harpsichord Music (see Best of the Month, page 87)

BACH: The Well-Tempered Clavier, Book 2. Glenn Gould (piano). COLUMBIA D3M 31525 three discs \$11.98.

Performance: **Brilliant, maddening**
Recording: **Very good**

Here we go again. When I put on the first side of this album I soon decided I would nominate it for STEREO REVIEW's Best of the Year awards. I cannot imagine anything as brilliant, as musical, as pianistically incredible, as clarifying, as satisfying as Glenn Gould's performance of the first couple of Preludes and Fugues here. At last, thought I, a Well-Tempered Glenn Gould.

Of course, I noted as the Preludes and Fugues rolled by, there is an odd touch here and there: that repeated-note accompaniment figure, curiously emphasized in the Third Prelude, and that quirky, slow, and plunky Fugue. Ah, but the exquisite beauty of the C-sharp Minor Prelude that follows! And who is to say what a "right" tempo might be in this music? Why shouldn't Gould be just as "right" as some old tempo tradition? Anyway, he's so convincing! This is surely for "Best of the

Month"—even if he does hum along all the time. Hummmmm. Mmmmmmm. Hmmmmm. The only *legato* seems to be in Gould's voice. What is he trying to do? Make the piano sound like a harpsichord? But what an incredible sense of touch and articulation. Such artistry! Such insight! Of course, he does fake you out sometimes. "This peaceful, flowing prelude resembles a composition for lute . . ." it says here in the album notes about the E-flat Prelude. Whoever wrote that obviously never heard G. G. whip through it.

Anyway, this is certainly a "Recording of Special Merit." No one has ever clarified the contrapuntal strands of Bach so well—on any instrument. Even without using most of the *legato* possibilities of the piano—usually considered the advantage of the piano over the harpsichord—Gould shapes the phrasing, articulation, contrapuntal movement, and linear independence without the slightest impression of effort: everything moves, everything speaks, everything clarifies itself as the crystalline thought of the master. But why does he start his final *ritardando* halfway through the damn piece? If only . . .

I suppose I might as well expect Bach to be as polite and consistent as Telemann as expect Glenn Gould to conform to my—or anyone else's—notion of this music. All I can say is that Gould plays this music like no one else, that he is never anything less than totally astonishing—pianistically, musically, intellectually—that this interpretation must be listened to and even studied. And, for the rest, *caveat emptor!*

The sound is good. I was very amused to note that nowhere on the album itself can the would-be purchaser discover what instrument Gould actually plays. He has taken to playing the harpsichord of late, but the instrument here is very definitely a piano—albeit of the very special Glenn Gould variety. E.S.

BARRAQUÉ: *Séquence; Chant après chant.* Josephine Nendick (soprano); Noël Lee (piano); Bent Lyloff and the Copenhagen Percussion Group; Members of the Prisma Group; Tamás Veto cond. MUSICAL HERITAGE SOCIETY MHS 1282 \$2.99 (plus 65¢ handling charge from Musical Heritage Society, Inc., 1991 Broadway, New York, N.Y. 10023).

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

Jean Barraqué is a rather obscure and isolated figure—as much or more so in his own country as abroad. His fame is largely the result of the championship of his friend André Hodeir, primarily known as a jazz critic and composer but also the author of a rather curious book on new music which achieved a certain notoriety a decade or so ago. Hodeir's thesis, that Barraqué is the true heir and authentic contemporary voice of that historical "avant-garde" revolution that began with Debussy, has not received much support in the subsequent years, if only because Barraqué has produced so little and so little has been heard. At any rate, here are two big pieces, early and more recent, which offer us a reasonable chance to assess Barraqué's art.

First we have *Séquence* again. This is the piece that prompted Hodeir—and, in this country, Gunther Schuller—to take up Barraqué's cause in the first place. The work, for voice, percussion, and various instruments, is said to have been started in 1950—thus enabling it to predate *Le Marteau sans*

mâitre of Boulez and other works which it might be thought to have followed. However, it was revised in 1955 and first performed the following year. *Chant après chant*, part of a giant unfinished cycle based on a novel of Hermann Broch, was written in 1966 and is scored for voice, piano, and six percussionists who play nearly 140 different instruments.

There is certainly, as Hodeir points out, an epic quality about these works. That their intrinsic worth makes them stand out from the familiar run of portentous European serial voice-and-percussion music is beyond my capacity to perceive; I will have to take Hodeir's word for it. What I sense in this music is the anguish of the alienated European intellectual—an attempt to turn isolation, alienation, uselessness, inwardness, even self-pity into something heroic. If you can bear it, it is impressive enough, but it takes, I think, a certain kind of masochism to suffer it in the first place.



JEAN BARRAQUÉ
Heir to Debussy's revolution?

Superb performances—English soprano, American pianist, Scandinavian musicians, and (probably) Hungarian conductor!—and excellent recording. The label information was reversed: the correct order is as given on the liner and above. E.S.

BEETHOVEN: *Sonatas for Piano and Cello (complete).* Pierre Fournier (cello); Artur Schnabel (piano). SERAPHIM Ⓜ IB 6075 two discs \$5.96.

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

This two-record album of the five Beethoven cello sonatas played by Pierre Fournier and Artur Schnabel is a rerelease of a recording made in 1947-1948. I did not have it in my library, and it is fascinating to hear for the first time a collaboration between two great musicians in which one of them is so clearly the greater.

Schnabel plays as if every note and phrase had been carefully considered, both privately and in rehearsals, and then somehow recharged with spontaneity at the final moment of recording. Fournier, on the other hand, seems to have put off most of his thinking until just before the recording session. He plays beautifully, but with some vagueness of thought, intonation, and attack. His is the kind of chamber-music playing that abounds with "happy accidents"—and unhappy ones.

So what we really have here are two extraordinary musicians who have not blended their styles of playing into one, but simply put them up against each other in a kind of parallel collaboration. It would be impossible to discuss one by one their performances of the Sonatas, for each offers special insights and pleasures, as well as (on Fournier's part) some tiny or not so tiny gaffes. I suspect all chamber-music lovers will at least want to hear this album. L.T.

BELLINI: *Norma.* Montserrat Caballé (soprano), Norma; Fiorenza Cossotto (mezzo-soprano), Adalgisa; Plácido Domingo (tenor), Pollione; Ruggero Raimondi (bass), Orovoso; Elizabeth Bainbridge (mezzo-soprano), Clotilde; Kenneth Collins (tenor), Flavio. London Philharmonic Orchestra and Ambrosian Opera Chorus, Carlo Felice Cillario cond. RCA LSC 6202 three discs \$17.94.

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

Perfection, always an elusive goal, appears least attainable in the subtle, understated world of an opera like *Norma*, where the orchestral textures are light, where conductors can unleash no beneficial thunder, and where the ideal realization of the exposed and treacherous vocal lines is not only desirable but essential. RCA's new *Norma* remains a safe distance away from perfection, but it is a good, musicianly realization, with much to commend it.

The framework is similar to the Bonygne treatment on London OSA 1394: the drama is understated and the vocal lines are supported by subdued and relaxed orchestral accompaniments. I have heard more incisive work from Carlo Felice Cillario on other occasions; here he seems content with providing well-judged tempos and a sensible direction without much rhythmic propulsion. His generally sympathetic view occasionally verges on the matter-of-fact.

Montserrat Caballé can always be counted upon to deliver some melting and magical phrases. In soft passages her singing is unflinchingly beautiful, and she projects the text clearly and meaningfully. Much of her singing above the staff, however, is strained and unsteady. Her overall achievement falls between the exciting and revelatory dramatics of Callas and the exquisite and almost faultless vocal control of Sutherland. Without matching either rival at her specialty, she is involved enough dramatically and expert enough vocally to make a pleasing *Norma*.

Fiorenza Cossotto is a fine Adalgisa whose firm, well-focused tones in the high register sometimes eclipse those of her partner. The "Mira o Norma" duet does not come off with the Sutherland-Horne kind of hair-raising precision, while the tender "Oh, rimembranza" is so blandly paced by Cillario that the scene is robbed of its poignancy. Plácido Domingo's understated Pollione fits into the overall placidity of conception. He sings with taste and fine musicianship, and with particular elegance in the closing scenes. Ruggero Raimondi's light bass-baritone sound suggests no paternal qualities, but his singing is above reproach. The choral work is somewhat lacking in polish, particularly in the passage leading to "Ah, bello a me ritorna," and the technical production is good without calling for special citations for excellence.

(Continued on next page)

I still prefer the Callas-Serafin *Norma* on Angel S 3615 (despite the undeniable vocal flaws in the Callas performance). But readers who do not share that preference—and their number, I suspect, is impressive—will find many pleasures and relatively minor disappointments in this RCA set. *G.J.*

BENNETT, RICHARD RODNEY: *Five Studies for Piano; Capriccio for Piano Duet* (see Collections—Composers at the Piano)

BRAHMS: *Symphony No. 1, in C Minor, Op. 68; Symphony No. 2, in D Major, Op. 73; Symphony No. 3, in F Major, Op. 90; Symphony No. 4, in E Minor, Op. 98.* Philadelphia Orchestra, Eugene Ormandy cond. COLUMBIA three discs D3M 31636 \$11.98.

Performance: **Disappointing**
Recording: **Disappointing**

This new issue of Brahms' four symphonies as played by the Philadelphia Orchestra and Eugene Ormandy must be counted one of the notable engineering failures of recent times. The recordings are a part of Columbia's "Fabulous Philadelphia Sound" series. Unfortunately, thanks to some peculiar engineering, the naturally voluptuous (some would say overvoluptuous) sound of the orchestra is virtually erased. Everything is shallow and on the surface: the violins sound thin and often shrill, the lower strings have lost their rich resonance, and the natural balances that Brahms orchestrated into the score have been disturbed. The balances we get on these discs, far from being an improvement over the *real* ones, are often quite preposterous. Accompaniments hold forth in some spots as if they were fully as vital to the rhetorical message as the thematic material itself. You can even hear some out-of-tune playing that I very much doubt would be audible under normal circumstances.

It is difficult to say which were Ormandy's ideas here and which the engineers'. Throughout the symphonies Ormandy does things that, to my ears, are surprising: retarding tempos from very slow to even slower, over-articulating certain entrances to the point of mannerism, using string portamentos with poorer taste than is usually his wont. How these details would have come through without the sonic tinkering, I cannot even guess. As it stands, the music sounds as if a committee had arbitrarily laced it together. *L.T.*

DANDRIEU: *Suite in C Major* (see Best of the Month, page 87)

RECORDING OF SPECIAL MERIT

DVOŘÁK: *Symphonic Variations, Op. 78; Scherzo Capriccioso, Op. 66; Notturmo, Op. 40.* Czech Philharmonic Orchestra, Vaclav Neumann cond. NONESUCH H 71271 \$2.98.

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

As everybody knows, some compositions arrest your attention in the first bars; others begin somewhat neutrally and become more interesting as they progress. Anton Dvořák's *Symphonic Variations* is one of the latter. Its first statement of a rather pedestrian, rocking theme seems to be second-rate. Indeed, the composer must have had peculiar thoughts when he called the score "Symphonic Variations on an original theme from the choral work *I Am a Fiddler*, for full orchestra, com-

posed and muddled by Antonin Dvořák." Muddled the work is not! He started simply, but before long he found dramatically compelling slants on his original idea. He constructed a musical continuum in which the intensity increases, and increases, and then explodes into fugues and popcorn.

The Scherzo Capriccioso is a bit more familiar, though I think it too is off the concert-hall beat these days. It is an elegant work, more constant in values, more conventionally "good," but less intensely inspired at any single point than are the Variations.

The Notturmo in B for String Orchestra is one of the most astonishingly beautiful works I have ever heard. In this experimental piece, Dvořák suddenly leapt forward—into the post-Romantic era. Without Wagner and late Beethoven this work could not have happened. But how is it that, while listening, one thinks also of Delius and Barber? *L.T.*



JOHN IRELAND
The composer as craftsman

HINDEMITH: *Symphony in B-flat Major* (see Collections—New England Conservatory)

HOVHANESS: *Symphony No. XI, "All Men Are Brothers," Op. 186.* Royal Philharmonic Orchestra, Alan Hovhaness cond. POSEIDON SOCIETY 1001 \$5.95 (available postpaid from Poseidon Society, 6843 Peacock Rd., Sarasota, Fla. 33581).

HOVHANESS: *Fra Angelico, Op. 220.* Royal Philharmonic Society, Alan Hovhaness cond. *Requiem and Resurrection, Op. 224.* North Jersey Wind Symphony, Alan Hovhaness cond. POSEIDON SOCIETY 1002 \$5.95.

Performances: **Composer's own**
Recordings: **Good mono**

Alan Hovhaness must be the most prolific of living composers and, without doubt, one of the most facile and agreeable. Hovhaness, who is of partly Armenian origin, was one of that Orientalizing movement in American music in the Thirties and Forties, a movement that produced composers as diverse as Harry Partch, Lou Harrison, and John Cage. Hovhaness has long since moved into a mild, lush, popular exoticism which escapes "kitsch"-iness only by a hair, saved largely by its almost Brucknerian earnestness. The Brucknerian impression is reinforced by the pious

tone and heavy, organ-like orchestration of the *Symphony* and much of the brass and percussion piece here. Easily the most attractive music comes in the cluster or free-repetition passages which are a Hovhaness trademark. These produce a particularly fine, ecstatic effect in the *Fra Angelico*, by far the most impressive piece in this collection.

Poseidon has now released at least seven records devoted to Hovhaness' music. Performances and recordings are good, although produced in mono only. I am not a Hovhaness admirer—I don't find enough in the music to hold my interest for long and certainly not through a sustained series of similar works—but those who feel differently should welcome these recordings. *E.S.*

IRELAND: *Piano Concerto in E-flat (1930); These Things Shall Be (1937).* Eric Parkin (piano in Concerto); John Carol Case (baritone in *These Things*); London Philharmonic Choir (in *These Things*); London Philharmonic Orchestra, Sir Adrian Boult cond. MUSICAL HERITAGE SOCIETY MHS 1429 \$2.98 (plus 65¢ handling charge, available from the Musical Heritage Society, Inc., 1991 Broadway, New York, N.Y. 10023).

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

John Ireland (1879-1962), during a creative life of some fifty years, enriched the literature of British music with a sizable body of songs and solo piano music, plus a modest but exceedingly well-crafted group of orchestral and chamber works. But being neither as ruggedly heroic in his musical utterance as Vaughan Williams nor as colorful as Delius and Bax, he has received less international attention. Recently the enterprising British Lyrita label has undertaken a large-scale recorded survey of Ireland's music, supplementing their releases of the virtually forgotten symphonies and piano music of Arnold Bax and the orchestral works of Gustav Holst. We owe the Musical Heritage Society a special vote of thanks for making available, at a modest price, virtually the whole Lyrita catalog of British music.

Neither the Piano Concerto nor *These Things Shall Be* have the Anglo-Celtic atmosphere that tinges some of Ireland's earlier work, such as *Mai-Dun* or *The Forgotten Rite*. The Piano Concerto is essentially lyrical in spirit, reaching its expressive peak in the lovely slow movement and concerning itself more with matters virtuosic in the lively rondo-finale. For me this concerto still remains the most effective and wholly representative of Ireland's large-scale works, and one of the very few truly viable piano concertos to come from the pen of a British composer (Walton's *Sinfonia concertante* is the one other major example that comes to mind).

Apparently Ireland went through a "populist" phase in the middle Thirties, and its chief results were the *London Overture* (1936) and *These Things Shall Be* (1937), a setting for baritone, chorus, and orchestra of a utopian poem by John Addington Symonds, which to me seems a rather pale echo of Tennyson's *Locksley Hall*. Regrettably, I find the music several cuts below the Piano Concerto in both expressive substance and sheer musical interest: it is essentially a kind of public-square music, a counterpart to Randall Thompson's *Testament of Freedom*, written for this country during World War II. Indeed, Ireland's piece refers to its historic context—the ill-

(Continued on page 118)

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starred "popular front" movement of the Spanish Civil War—with a clear quotation of *The Internationale* toward the end.

I recommend this disc for the Piano Concerto, which gets a fine reading at the hands of soloist Eric Parkin with the ever-able and vital backing of Sir Adrian Boult. They are given an excellent recording. The choral score receives tender loving care, but not even the best efforts of all concerned can endow it, for my taste at least, with much vitality. *D.H.*

RECORDINGS OF SPECIAL MERIT

LISZT: *Symphonic Poems: No. 1, Ce qu'on entend sur la montagne; No. 2, Tasso, Lament and Triumph; No. 3, Les Préludes; No. 4, Orpheus; No. 5, Prometheus; No. 6, Mazeppa; No. 7, Festklänge; No. 8, Heroïde Funèbre; No. 9, Hungaria; No. 10, Hamlet; No. 11, Hunnenschlacht; No. 12, Die Ideale; No. 13, From the Cradle to the Grave; Mephisto Waltz (No. 2 of Two Episodes from Lenau's Faust).* London Philharmonic Orchestra, Bernard Haitink cond. PHILIPS 6709 005 five discs \$27.95.

Performance: **Good to superb**
Recording: **Mostly very good**

LISZT: *Symphonic Poems: No. 11, Hunnenschlacht; No. 4, Orpheus; No. 6, Mazeppa.* Los Angeles Philharmonic Orchestra, Zubin Mehta cond. LONDON CS 6738 \$5.98.

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

Since 1969 Bernard Haitink and the London Philharmonic have been undertaking for Phi-

lips the first integral recording of the Liszt symphonic poems. With this album, embodying the completed task and including new recordings of *Prometheus*, *Heroïde Funèbre*, *Festklänge*, and *Die Ideale*, with the *Mephisto Waltz* from the Lenau *Faust* Episodes as an encore, Mr. Haitink and Philips have made a major contribution to the documentation of the Romantic orchestral repertoire. We may find the symphonic poems distressingly uneven in interest and effectiveness, but Liszt's development of the genre has so influenced succeeding generations of composers that it is wonderful to have all of them in a single package—and in excellently recorded, well-wrought readings from start to finish.

Listening to the whole series at one sitting confirmed my long-held opinion of Liszt as composer: he is splendid in the dramatic rhetorical gesture and resourceful in the art of motivic metamorphosis, but he is short on genuinely original and substantial melodic invention. The terse symphonic poems are the best and receive the finest performances here: *Hamlet*, *Prometheus*, *Orpheus*, and that strangely mystical work of Liszt's last years, *From the Cradle to the Grave*. And *Les Préludes*, for all its hackneyed aspects, remains for me one of the finest examples of Lisztian construction, especially with regard to thematic transformation. Among the longer pieces, *Heroïde Funèbre* is genuinely impressive, anticipating as it does some of the funereal symphonic movements of Mahler. (Indeed, the Liszt symphonic poems are full of such anticipations: the closing pages of *Orpheus* and more especially those of *From the Cradle to the Grave* are prophetic of the

pandiatonic open harmonic textures of Stravinsky's *Apollo* and Copland's *Appalachian Spring*.)

As for the others: though *Ce qu'on entend sur la montagne* has splendid moments, it lacks effective structural and dramatic cohesion; *Tasso* contains more rhetoric than substance, except for a charming central section in minuet style; and the musical material of *Hungaria* has been handled better in the more succinct Hungarian rhapsodies. I find little memorable in *Festklänge* or *Die Ideale*; and *Mazeppa* and *Hunnenschlacht* come to life for me only in such supercharged performances as Zubin Mehta's Los Angeles Philharmonic recording for London.

The Haitink reading of the familiar *Mephisto Waltz* is both unexceptionable and unexceptional—being neither as poetically evocative as Ansermet's on London nor as super-virtuosic as Reiner's on RCA Victrola.

Of Zubin Mehta's recording of *Hunnenschlacht*, *Orpheus*, and *Mazeppa*, I can say only that the performances of the first and last are simply hair-raising—and, as is the case with such playing and recording, make the music sound far better than it really is. The end of *Hunnenschlacht*, with organ augmenting the full forces of the orchestra, will provide an acid test for your playback equipment. *D.H.*

MAHLER: *Songs* (see **SCHUBERT**)

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MOZART: *Sacred Music. Missa Brevis in C Major ("Credo Mass," K. 257); Mass in C* (Continued on page 122)

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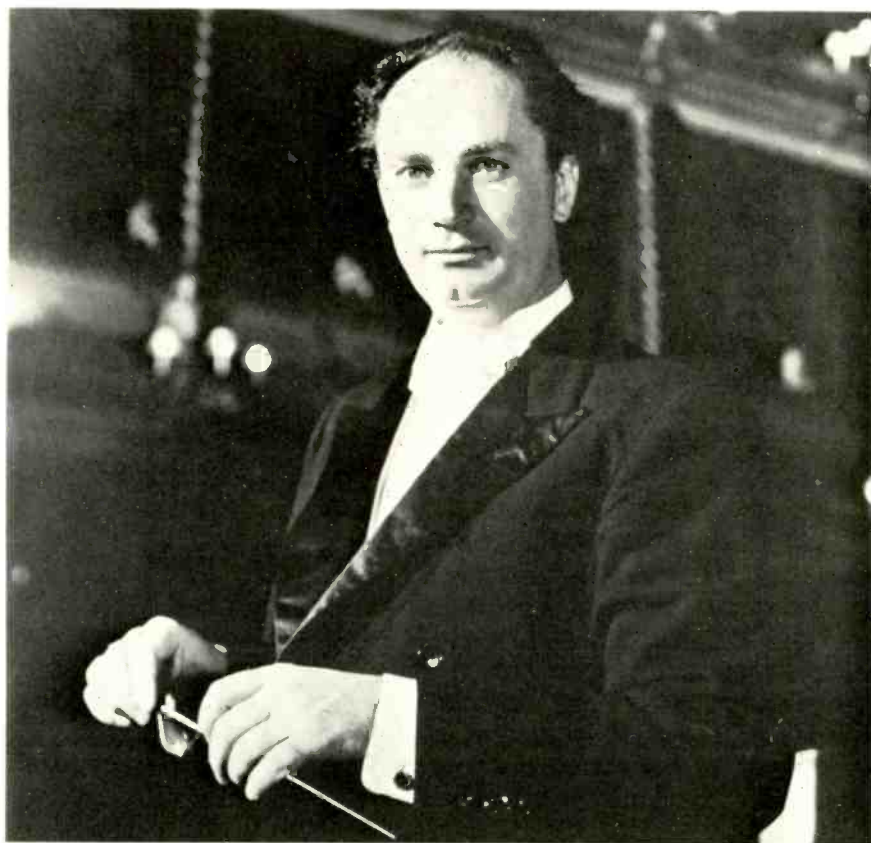
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KUBELIK IN CHICAGO

Welcome reissues from the salad days
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Reviewed by RICHARD FREED

WHATEVER it was that prompted Mercury to dig out and clean up their Chicago Symphony recordings, made as far back as April 1951, their reappearance now (in honest mono) is as welcome as it is surprising—and not on sentimental or historical grounds alone, though they are extraordinary documents of an exciting time in Chicago and an equally exciting breakthrough in the art of sound recording. Titring the two-volume set "The Kubelik Legacy," however, sounds an ominous note, and one that is hardly appropriate. Rafael Kubelik, who was not yet thirty-nine when he left Chicago in 1953, is very much part of the current scene. In fact, his appointment—to take effect this fall—as the first Music Director in the history of the Metropolitan Opera probably explains why these recordings have been refurbished now.

Surely the works included on these discs are more than amply represented in current stereo versions, and Kubelik himself has remade some of them more than once since the 1951 sessions with which he began his American recording career. But he has come a long way since then, and so has the Chicago Symphony, which Mercury's promotional literature cites as "probably the finest orchestra ensemble in the United States today" and "perhaps the greatest orchestra in the world today." As one who heard the orchestra regularly through the

Defauw, Rodzinski, Kubelik, and Reiner tenures and frequently since then, I would say the hell with "probably" and "perhaps," but I would also have to concede that the orchestra Kubelik conducted from 1950 to 1953 had not yet become the glorious unit that it is today. That, however, is very much what these reissues are all about, for the freshness and vitality that come through on these discs suggest that the Chicago Symphony was always a supreme virtuoso ensemble, and they also certify Kubelik's mastery of his art at that stage of his career.

When Mercury first released his *Pictures at an Exhibition*, as MG 50000, the vividness of the sound stood the audio world on its ear. The disc introduced the company's much-publicized technique of recording an orchestra in normal concert seating with a single microphone (Telefunken, in this case) suspended twenty-five feet above the conductor's podium (the specific positioning was modified according to the material). Subsequent remasterings, including a version in phony stereo, dimmed the original luster a bit, but the old black-label copy I have kept since it first came out has remained for me the formidable standard against which all subsequent recordings of *Pictures* must be measured. If you think I am guilty of overstatement, with stunning stereo versions available on every label (including the Reiner and Ozawa RCA re-

cordings with the later and greater Chicago Symphony), just listen! The trumpet's crisp and wholly unconfined statement of the "Promenade" theme promises that this is to be an Event—and so it is still. Richard Campbell's new mastering is faithful to the original pressings, and the new surfaces (pressed by Columbia) are gratifyingly quieter.

In its day Kubelik's Tchaikovsky "*Pathétique*" was considered almost as revelatory as his *Pictures*, and it is still remarkable for his utterly schmalz-free exposition of the work's structure, which in no way impedes his uncommonly convincing realization of the high drama in this much-abused score. The Tchaikovsky Fourth in Volume Two reflects a similar concept: it is dramatic but never hysterical, firmly controlled but never stiff. As in Kubelik's recent Mahler recordings on DGG, numerous ordinarily overlooked felicities in the score come through naturally, without self-conscious tempo changes or other artificial "highlighting."

The two Smetana pieces, which Kubelik had recorded with the Czech Philharmonic in his early twenties, are here extracted from the first of his three complete recordings of *Má Vlast*. In several sections the Chicago version had more punch and conviction than either his early stereo remake with the Vienna Philharmonic (London STS 15096/7) or the recent one with the Boston Symphony (Deutsche Grammophon 2707 054)—the Chicagoans gave just that much more feeling of spontaneity and radiance. The Chicago "New World" is also a stronger performance than Kubelik's Vienna remake (London STS 15007): it will be interesting to compare it with his new Berlin Philharmonic version when DGG makes that recording available.

THE Mozart Symphony No. 38, originally paired with that composer's Symphony in C Major (K. 338), and later with *Vyšehrad* and *The Moldau*, sounds more persuasive than I had remembered. It is neither inflated nor miniaturized, but aristocratic in its very straightforwardness—the rhythms are supple, the phrasing is unfussy, and the winds are elegantly balanced against the judiciously reduced strings.

Personally, I regret the omission of the Schoenberg *Five Pieces for Orchestra*, Opus 16, a performance and recording every bit as distinguished as Kubelik's *Pictures*, and I would have liked to have had the Bloch Concerto Grosso No. 1—this work has been ridiculously neglected, and certainly has had no performance on records to match Kubelik's. The Hindemith side goes almost as far toward justifying investment in Volume Two as the Moussorgsky does for Volume One—all stops are out for a marvelously exhilarating *tour de force*—the Bartók is splendidly propulsive, lacking only the sonic realism of the latter-day versions by Bernstein, Boulez, and Barenboim.

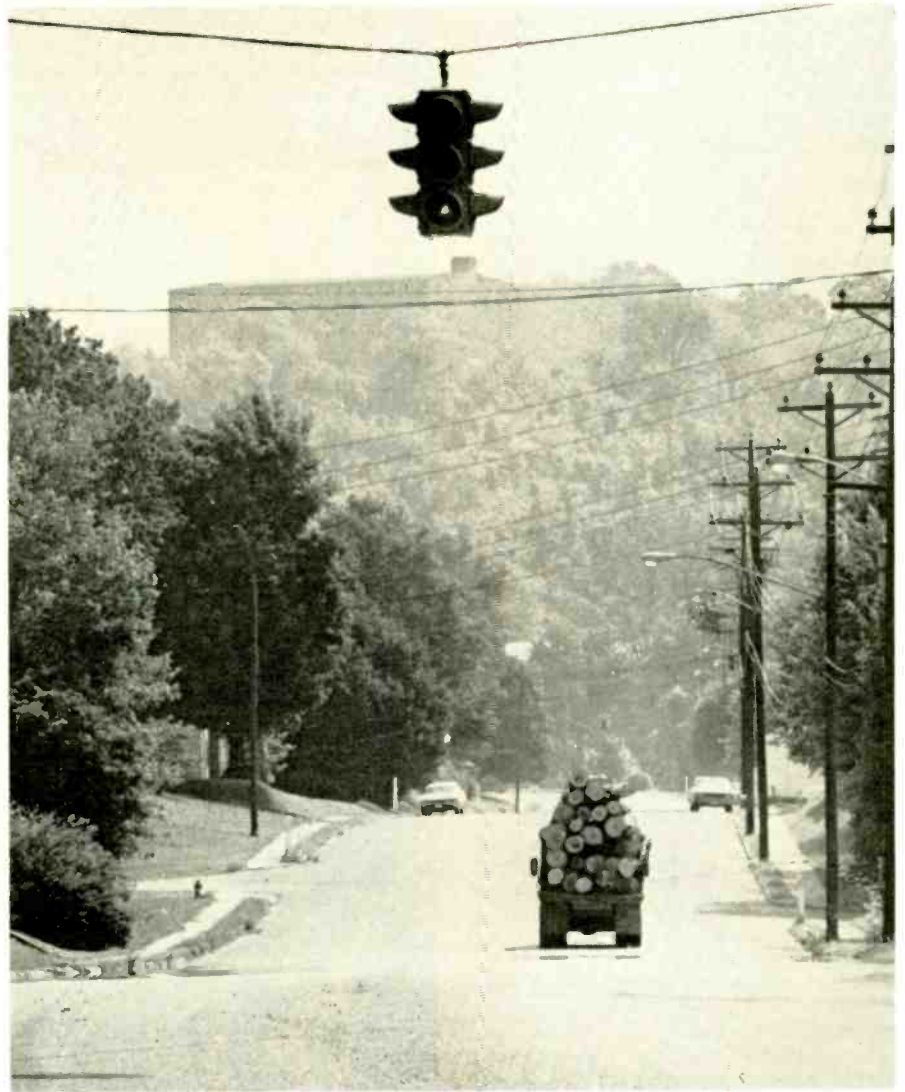
In addition to restoring these excellent performances to the catalog and doing full justice to the original sound, Mercury has confirmed the documentary value of the albums by commissioning a concise but comprehensive history of the Chicago Symphony and its successive conductors. The comments of Robert C. Marsh, who came to

Chicago as music critic of the *Sun-Times* in 1956 (three years after Kubelik left the orchestra), are notable for their understanding, compassion, and fairness. The only conspicuous error has to do with Kubelik's Met appointment: his title is Music Director, not the Teutonic "General Music Director" as given in the booklet, and the effective date is September 1973, not 1972. (Though I agree with Mr. Marsh that the Kubelik years probably provided "the best balanced and most stimulating programming the Chicago Symphony has offered in the past twenty-five years." I question whether "these were the first discs [by the Chicago Symphony] for which no apologies need be made." RCA Victor made some 78's with Frederick Stock and Artur Rodzinski, and quite a few with Désiré Defauw, which projected a brilliant sonic image; Orchestra Hall was a fabulous recording site until its gratuitous acoustical renovation in 1966.)

THE booklets (a different one for each album) are generously illustrated, but the photographs are not identified. Pictured in them are such people as John Weicher, the long-time Concertmaster and sometime Assistant Conductor of the Chicago Symphony, whose devotion was such that he took a seat in the seconds for his last few years with the orchestra; Kubelik's first wife, violinist Ludmila Bertlova, on whose death he composed the third of his Requiems, and their son Martin; and George Schick, Associate Conductor of the orchestra under Kubelik, pianist in the Bartók and Bloch recordings, and now President of the Manhattan School of Music. It may be noted, too, that Ravel's name does not appear on the labels for *Pictures at an Exhibition* or in the list of contents for Volume One. But there is a far more glaring omission under the heading "Production Credits," where only those who prepared the reissues are listed. Nowhere in the sixteen large pages of printed material is there any reference to David Hall, who produced *all* of these recordings in Orchestra Hall, or to C. R. Fine and George Piros, the engineers who worked with him to make the series the sonic phenomenon it was.

And a phenomenon it still is—or is again—in these handsomely realized reissues, remarkable for their enduring brilliance, but no less so for the warmth of heart that has always been evident in the music-making of this orchestra and this conductor.

CHICAGO SYMPHONY ORCHESTRA/ THE KUBELIK LEGACY. Volume I: Moussorgsky-Ravel: *Pictures at an Exhibition*. Tchaikovsky: *Symphony No. 6, in B Minor, Op. 74 ("Pathétique")*. Mozart: *Symphony No. 38, in D Major (K. 504, "Prague")*. Smetana: *The Moldau; From Bohemia's Meadows and Forests (from Má Vlast)*. Volume II: Tchaikovsky: *Symphony No. 4, in F Minor, Op. 36*. Dvořák: *Symphony No. 9, in E Minor, Op. 95 ("From the New World")*. Hindemith: *Symphonic Metamorphoses on Themes of Carl Maria von Weber*. Bartók: *Music for Strings, Percussion, and Celesta*. Chicago Symphony Orchestra, Rafael Kubelik cond. MERCURY Ⓜ MG 3-4500 and 3-4501 three discs each. \$11.98 each.



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Major ("Coronation Mass," K. 317); *Mass in C Minor* ("Great Mass," K. 427); *Vesperae solennes de confessore* (K. 339); *Kyrie in D Minor* (K. 341); *Ave verum corpus* (K. 618); *Exsultate, jubilate* (K. 165); *Requiem in D Minor* (K. 626). Helen Donath (soprano, in K. 257, 317, 427, and 626); Heather Harper (soprano, in K. 427); Kiri Te Kanawa (soprano, in K. 339 and 165); Gillian Knight (alto, in K. 257 and 317); Elizabeth Bainbridge (alto, in K. 339); Ryland Davies (tenor, in all but K. 341, 165, and 618); Clifford Grant (bass, in K. 257); Stafford Dean (bass, in K. 317 and 427); Gwynne Howell (bass, in K. 339); Gerd Nienstedt (bass, in K. 626); John Alldis Choir (in K. 257, 317, and 626); London Symphony Chorus (in K. 427, 339, 341, and 618); John Constable (organ, in all but K. 626); Alan Harveson (organ, in K. 626); London Symphony Orchestra (in all but K. 626) and BBC Symphony Orchestra (in K. 626). Colin Davis cond. PHILIPS 6707 016 four discs \$27.92.

Performance: **Festive and powerful**
Recording: **Excellent**

This collection of Mozart's sacred music is far from complete, but it does contain a good many major compositions, as well as some of Mozart's best-known church pieces. The largest-scale works included are the famous *Requiem*, left unfinished at Mozart's death and completed by Süßmayr, and another unfinished work, the *Great Mass in C Minor*, which is played here in an edition reconstructed by H. C. Robbins Landon. Though most of the album has already been released as single discs (the *Requiem* as long ago as 1968), the release of the set marks the first appearance of this performance of the *C Minor Mass*. Let us hope that Philips plans to make it available singly as well, for this superb piece (unfortunately missing an *Agnus Dei* and the second half of the *Credo*, right after the exquisite *Et incarnatus est*) receives a vital, powerful, and sensitive performance here. The same adjectives describe the other performances.

Davis' is a no-nonsense approach to Mozart; the grace is there, but the music's heart is never on its sleeve. Perhaps most impressive of all is his achievement in the many choral movements: the ethereal quality of the singing in the popular *Ave verum corpus*, for example, or the grandeur of the little-known *Kyrie in D Minor* (K. 341). And the soloists are excellent. If there is a weak performance here, it is in the early motet *Exsultate, jubilate*; the soprano's florid singing is neat in execution but just a little lacking in color and subtlety. Otherwise, there can be nothing but praise for this collection. The album includes an annotated and illustrated brochure with texts and translations. The recording is distant, not ideal for clarity, but it does convey the atmosphere of a church quite successfully. I.K.

MUSGRAVE, THEA: *Monologue for Piano; Excursions* (see Collections—Composers at the Piano)

PALESTRINA: *Missa Papae Marcelli; Missa brevis*. King's College Choir, Cambridge, David Willcocks cond. SERAPHIM S 60187 \$2.98.

Performance: **Too ethereal**
Recording: **Excellent**

Palestrina's most famous mass, *Missa Papae Marcelli*, was written about 1656 in honor of Pope Marcellus II, who had died the previous

year just three weeks after he had been elected. Like its disc-mate here, the *Missa brevis* from Palestrina's third book of *Masses* (1570), it is one of the relatively few masses by this composer not based on a *cantus firmus*. Both works are Palestrina at his finest, and are typical of the composer's ethereal, luminous, contrapuntally effortless and serenely flowing style. The King's College Choir under David Willcocks has made some notable Palestrina recordings in the past, and this disc ably demonstrates that group's obvious choral skills. Yet the vocal production is far too English and tonally cool, and the pacing and a kind of seamless legato rob the music of any possible emotional impact. Tempos are quite slow (less so in the *Missa brevis*, which overall is the better of the two performances), and there is insufficient vitality. Compare, for example, the Archive recording (ARC 73182) of the Pope Marcel-

somewhat fuller-bodied than that of the French ensembles one has become used to. The rather reverberant recording locale undoubtedly contributes to this impression. In any event, I enjoyed this particular performance thoroughly, and the recording is absolutely first-rate by any standards.

The more dramatic Left-Hand Concerto is for me more problematic—partly because the tighter Severance Hall acoustic is somewhat disorienting after the very bright and full Philadelphia sound, and partly because it seems to me that Entremont is holding back the tempo of the crucial 2/4 "march" episode just a bit too much, thereby depriving the climax of a certain dramatic inevitability. But Entremont's treatment is intentional, as he mentions in his very interesting sleeve notes, and presumably M. Boulez and his soloist agreed on all points before undertaking their recording—so one must accept them at their musical word, like it or not.

There can be no question that the Entremont-Boulez performance is by far more accurate and disciplined than that of the late Samson François, whose Angel disc I had on hand for comparison. For example, in the downward triadic runs that introduce the 2/4 section, Entremont and the orchestra match each other perfectly, which certainly is not the case in the François recording.

The disc version of the Columbia recording is decidedly better than the cassette from the standpoint of listening quality, though the cassette is perfectly acceptable on its own terms—for small-apartment, relatively low-volume-level listening. I was disturbed, however, by the background mismatch resulting, presumably, from the fact that the G Major Concerto was recorded in 1964, before the Dolby era. D.H.



PHILIPPE ENTREMONT
Glittering Ravel piano concertos

lus Mass by the Regensburg Cathedral Choir (26½ versus King's 32½ minutes), in which the music soars with clearly defined climaxes and more logical direction in terms of the liturgy which it accompanies. One cannot deny that the effect here is ethereal, but it also comes dangerously close to being vapid, at least in the case of this disc's first side. The recording is excellent, and the Mass text and its translation are provided. I.K.

PERSICHETTI: *Symphony No. 6, Op. 69* (see Collections—New England Conservatory)

RAMEAU: *Suite in A Minor* (see Best of the Month, page 87)

RAVEL: *Piano Concerto in G Major (1931); Piano Concerto for the Left Hand (1931)*. Philippe Entremont (piano); Philadelphia Orchestra, Eugene Ormandy cond. (in G Major Concerto); Cleveland Orchestra, Pierre Boulez cond. (in Left-Hand Concerto). COLUMBIA M 31426 \$5.98. © MT 31426 \$6.98.

Performance: **Brilliant**
Recording: **Variable**

The Ravel G Major Piano Concerto is an ideal vehicle for Philippe Entremont's glittering pianism, which Eugene Ormandy backs up brilliantly with orchestral sound that is

RECORDING OF SPECIAL MERIT

REGER: *Variations and Fugue on a Theme of Georg Philipp Telemann, Op. 134*. Hugo Steurer (piano). *Variations and Fugue on a Theme of Wolfgang Amadeus Mozart, Op. 132a*. Alfons and Aloys Kontarsky (pianos). MUSICAL HERITAGE SOCIETY MHS 1268 \$2.50 (plus 65¢ handling charge from the Musical Heritage Society, 1991 Broadway, New York, N.Y. 10023).

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

Only Max Reger could have composed a chock-full, half-hour-long *Variations and Fugue* on a Classical theme and then turned right around and produced another one. The Mozart *Variations* are the relatively familiar ones—based on the first movement of K. 331—in the alternate two-piano version arranged by the composer himself. The Telemann set—based on a Minuet from the *Tafelmusik*—is, in its way, even more monumental, although written for only one piano, two hands.

Reger is unique among well-known Western composers in that he has essentially no recognizable style of his own. These variations range, quite consciously, from neo-Baroque and neo-Classicism to a fresh Schubertian Romanticism to a warm Brahmsian mode to a chromatic late Romanticism. Without advance knowledge, I defy anyone to pinpoint the composer in the instantaneous way one recognizes Schumann or Brahms or Mahler. I am not offering this comment as a criti-

(Continued on page 124)

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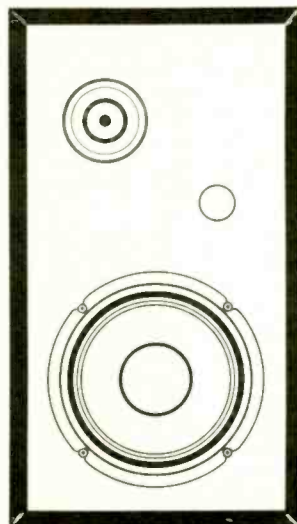
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cism of Reger so much as an explanation of a cultural habit which has, no doubt, inhibited the appreciation of the ingenious work of a gifted and facile composer.

Actually, Reger's work has "style," but instead of a series of instantaneously recognizable trademarks, it is more of an amalgam of the experiences of a cultivated musician with a tremendous facility for absorption and transformation. All of this suggests a reasonably modern sensibility, and perhaps explains why Reger's music is having something of a mini-revival.

In my view, Reger's music suffers not from style-lessness (the real source of much anti-Reger criticism, but perhaps as much a virtue as a fault from our latter-day point of view) but from detachment. By this I don't mean coldness or over-intellectualism but rather a lack of connectedness with anything beyond itself. Unlike Brahms, the last great bourgeois composer, Reger is really a product not so much of a thriving musical society as of a specialized and artsy view of art. I think this shows in the music and gives it a rather snobby or haughty air; this is great music, Reger seems to say, written for those of us who know and can appreciate it. So some really very beautiful music, with its extraordinarily fine craftsmanship and poetic sensibility, seems to acquire some rather unpleasant "we precious few" connotations.

To be fair, Brahms' music often struck people the same way. If one can get past these problems, there is a good deal to enjoy. The solo piano work is extremely well played and recorded, and the two-piano set is nearly as well managed. E.S.

RECORDING OF SPECIAL MERIT

SCHUBERT: *Schwestergruss*; *Der Zwerg*; *Ellen's Three Songs (Raste, Krieger!; Jäger, ruhe von der Jagd; Ave Maria)*. **MAHLER:** *Das irdische Leben*; *Wo die schönen Trompeten blasen*; *Urlicht*; *Liebst du um Schönheit*; *Ich bin der Welt abhanden gekommen*. Jessye Norman (soprano); Irwin Gage (piano). PHILIPS 6500 412 \$5.98.

Performance: **Tantalizing**
Recording: **Top quality**

This is the first release in this country of a solo disc by the twenty-six-year-old black soprano Jessye Norman, who hails from Augusta, Georgia, but has spent most of the past five years delighting European—and particularly Covent Garden—audiences. American record collectors are most likely to know her recording of the role of the Countess in Philips' *Marriage of Figaro* led by Colin Davis, although an earlier recital of Wagner's *Wesendonck Lieder* and other songs was on Odeon's import list for a time. In the summer of 1972 Miss Norman appeared with Davis and the Boston Symphony at the Tanglewood Festival in Massachusetts, singing the *Wesendonck Lieder* and the *Liebsteod* from *Tristan und Isolde*; Donal Henahan, covering the event for the *New York Times*, wrote that "hers is one of the more important voices to come along in some time."

For those not fortunate enough to be within striking distance of one of Miss Norman's scheduled appearances on this side of the Atlantic, the disc at hand will serve as a satisfactory introduction. It is only variably successful, but its successes raise the highest expectations. The quality of Miss Norman's voice is gorgeous. Its purity of focus and ringing,

almost vibrato-less upper register recall Birgit Nilsson, but its timbre is warmer than Miss Nilsson's, and it reaches down to a mezzo-colored lower register that is still of a piece with the rest of her range. It is a flexible instrument, too, and gets around easily in rapidly moving passages. Furthermore, her tone production is nicely forward, so that words come across with exemplary clarity.

There is at least one performance here that opens a vista on an exciting future for Miss Norman: Schubert's *Der Zwerg*. Though occasionally her voice seems to engage some notes in a phrase more fully than others (another characteristic she shares with Miss Nilsson), she employs a wide variety of colors for expressive effect and uses the natural thrust of her tones to convey the gothic terror of this ballad powerfully. This performance measures up to many I have heard by fine lieder singers who have plied their trade much



JESSYE NORMAN
Extraordinarily promising soprano

longer than Miss Norman. *Schwestergruss*, a stolid song (on a really musty poem by Bruchmann) apparently never before recorded, is likewise very effective. Of *Ellen's Three Songs*, based on poems from *Lady of the Lake* by Sir Walter Scott, *Raste, Krieger!* and *Jäger, ruhe von der Jagd* are thoroughly enjoyable, but I will pass quickly over the familiar *Ave Maria*, which suffers from an ill-chosen tempo and several related difficulties.

Singers of much greater experience and reputation than Miss Norman have come a cropper in the Mahler songs on the second side. *Urlicht* (here transposed up a whole tone from the key in which it is set in Mahler's Second Symphony) calls for a naiveté that is only a hair's-breadth from world-weariness, *Liebst du um Schönheit* for a sophistication that must seem to mask childlike innocence, and *Ich bin der Welt* for an ecstasy that never suggests renunciation. In my opinion, Miss Norman falls short in all three, but what she does achieve indicates that her understanding of these songs may go deeper than her art can convey at present. *Das irdische Leben*, a more obvious—an almost operatic—song, is well handled, and *Wo die schönen Trompeten blasen*, thanks to some beautiful floated piano tones and some nicely drawn contrasts, is effective though certainly a bit tame compared with the poignant intensity of Christa

Ludwig's recording with Leonard Bernstein at the piano.

I write at such length about performances that are more promise than fulfillment because the promise is so extraordinary and its fulfillment so demonstrably within the artist's grasp—witness *Der Zwerg*. It remains to be added that Irwin Gage's accompaniments here are superb, although once or twice in the Mahler sequence they seem self-conscious, and that Philips' sound is fully up to this company's standard, which is very high indeed.

Robert S. Clark

SCHUMANN: *Allegro, Op. 8; Romance, Op. 28, No. 2; Novelle, Op. 21, No. 8; Kreisleriana, Op. 16*. Alicia de Larrocha (piano). LONDON CS 6749 \$5.98.

Performance: **Attractive**
Recording: **Adequate**

Here is a pleasant recital leading off with an early and little-known *Allegro* to which Miss De Larrocha has appended—somewhat awkwardly—a *Romance* and a *Novelle*; on the other side of the disc is a complete and poetic performance of the *Kreisleriana*.

The *Romance* and the *Novelle* do not really match up well with the very different *Allegro*, not only because the styles differ but also because they are extracted from larger sets. The last *Novelle*, really two separate pieces linked by the composer, forms the final chapter of a series of narratives. How much nicer it would have been if Miss de Larrocha had recorded all the *Romances* or all the *Novelles* together!

The performances are occasionally a little unfocused, and the piano sound is merely adequate in a somewhat clangy sort of way. But at its best this playing is communicative nonetheless. It is striking that Miss De Larrocha often has a better overall sense of the poetry of this music than she does of its intimate details—quite the reverse of the situation usually encountered these days. E.S.

SCRIABIN: *Sonata-Fantasia in G-sharp Minor; Sonata in E-flat Minor; Sonata No. 1, in F Minor, Op. 6; Sonata No. 2, in G-sharp Minor, Op. 19; Sonata No. 3, in F-sharp Minor, Op. 23; Fantasia in B Minor, Op. 28*. Roberto Szidon (piano). DEUTSCHE GRAMMOPHON 2707 058 two discs \$13.96.

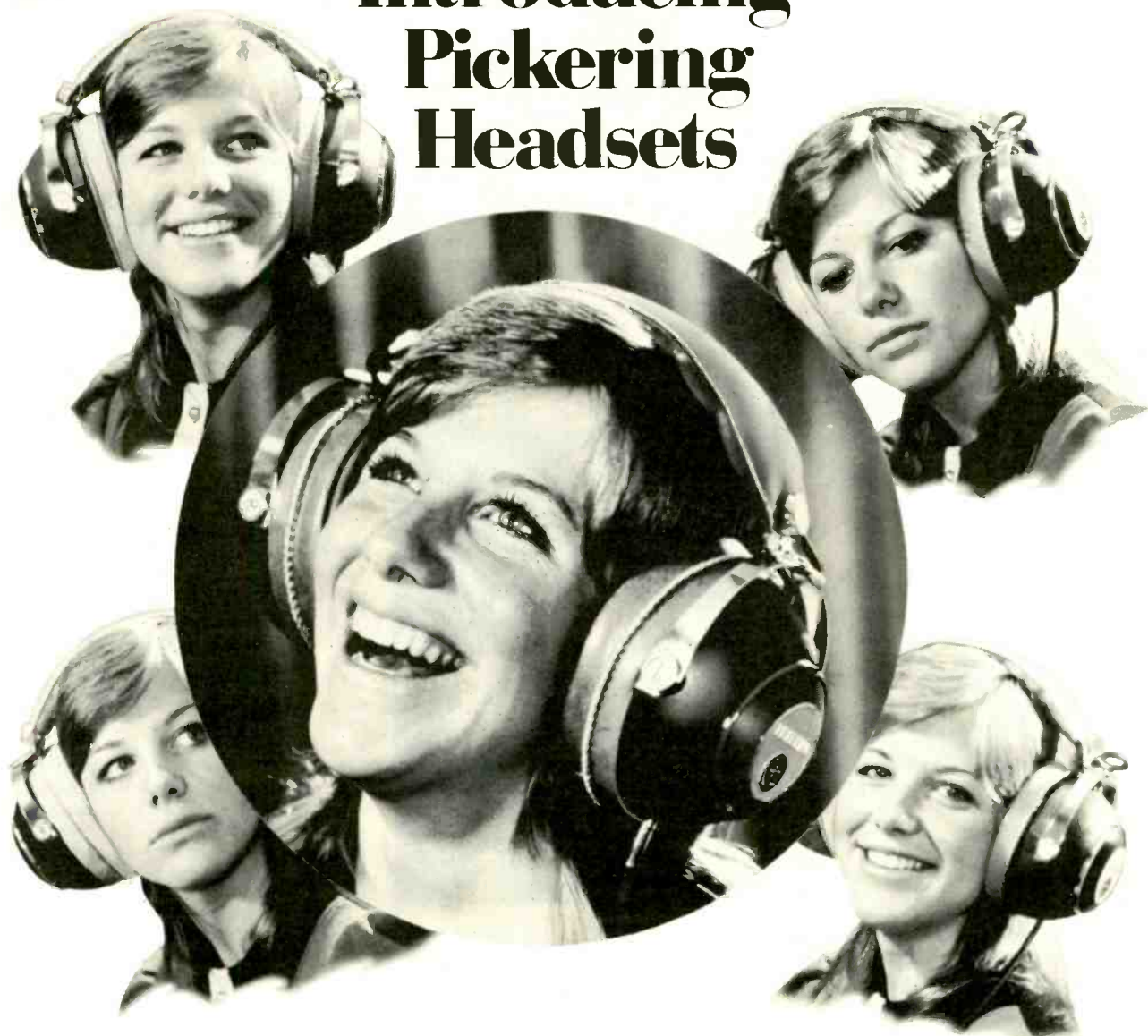
Performance: **Supercharged**
Recording: **Somewhat overbrilliant**

This album brings to completion Roberto Szidon's survey of the Scriabin sonatas. Like Michael Ponti in his three-disc *Vox Box*, Szidon includes the early G-sharp Minor Sonata, written when Scriabin was fourteen, and the reconstructed E-flat Minor Sonata; for good measure he gives us the important B Minor Fantasia from 1901, which to the best of my knowledge has until now been available on LP only on an early Raymond Lewenthal Westminster disc.

As might be expected, in pre-1900 Scriabin there are many reminiscences of Chopin, Schumann, and Liszt; but there is also a powerful dramatic impulse, and the writing for the piano is absolutely unerring in timbral sense and sheer virtuosic pyrotechnics. Moments that stand out for me include the tender middle movement of the early E-flat Minor Sonata; the magical, brooding, nocturne-like slow movement of Op. 6, and its haunting, funereal finale with echoes of the

(Continued on page 126)

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Dies irae; the ferocious second movement of the third Sonata (marked *allegretto*, but Szidon's reading seems decidedly *allegro*, especially alongside my more justly paced Horowitz reading on an RCA monophonic disc); and the whole of the B Minor Fantasia.

I have listened again to the Horowitz recording, as well as to several Richter recordings of sonatas and other Scriabin works. These have tended to bear out my feeling that Szidon, for all his brilliance and control (particularly in the slow movement and finale of Op. 6) overdoes the element of feverish dramatic contrast to the point that it becomes overbearing, and the sound finally palls. The DGG engineers, furthermore, have favored rather close-up and hard sonics, which makes these performances even harder to take, save in short doses. D.H.

SERVAIS: *Grand Fantasies for Cello and Piano on Themes from Rossini's Barber of Seville and Donizetti's La Fille du Regiment; Souvenir de Spa, Op. 2.* Joel Krosnick (cello); Cameron Grant (piano). ORION ORS 7290 \$5.98.

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

Grand Fantasies on operatic themes were standard showpieces for nineteenth-century instrumentalists, who played them to demonstrate not only their performing skills but also a certain amount of compositional virtuosity. Many of the great pianists and some violinists of that epoch survive in the memories of the music world, but the cellists are pretty well forgotten. Adrien François Servais, the Belgian cellist, was possibly the virtuoso of his day—the Paganini of the cello—and like his contemporaries he specialized in pieces for his own use.

The two fantasies here—very effectively and brilliantly performed by the young American cellist Joel Krosnick—exploit the idea of the cello as a singing instrument. In the old vocal style, they pass very naturally from the *cantabile* to ornamental decorations, cadenzas, and variations and on into highly florid and technically difficult passages designed to heap Pelion on Ossa. The familiarity of the tunes themselves served to set off the compositional and performance skill of the artist all the more. The idea in *Souvenir de Spa* (Spa, a Belgian town, was the *original* spa) is similar.

I do find that one or two of these pieces goes a long way. Twenty minutes is a lot of fashionable fantasia, no matter how much skill, wit, and charm may be applied; a whole record's worth is a bit much. Anyway, Krosnick's performances are in the right vein as well as technically excellent, and they are admirably seconded by Cameron Grant. The recording is eminently satisfactory: it even resolves the problem of putting the cello on the first plane and yet letting the piano have its say. E.S.

STRAUSS, J.: *Die Fledermaus* (see Best of the Month, page 88)

STRAVINSKY: *Le Sacre du printemps.* London Symphony Orchestra, Leonard Bernstein cond. COLUMBIA M 31520 \$5.98, □ MQ 31520 \$6.98, © MT 31520 \$6.98.

Performance: **Typically Bernstein**
Recording: **Brilliant**

The sound is the thing here, so we might as well dispose quickly of the musical aspects of

this Bernstein performance: the first half is characterized by an unerring sense for detail together with a just presentation of the relentless rhythmic propulsion that, in my opinion, makes *Sacre* the "Eroica" of the twentieth century. But, from the *Pagan Night* opening of Part Two to the concluding *Danse sacrale*, things go downhill; it is as though Bernstein were trying to give us "the sensuous *Sacre*," complete to a *rubato* (!) treatment of what should be the majestic and awe-inspiring *Evocation of the Ancestors* episode. For my taste, *Le Sacre* no more needs this treatment than the late Tchaikovsky symphonies need to have each and every musico-dramatic turning point underscored. Stravinsky's own reading of *Le Sacre* and Toscanini's of the Tchaikovsky "Pathétique" are still the standards against which I measure other performances of these masterpieces.



JAN DEGAETANI
A gorgeously sung Varèse *Offrandes*

Columbia's SQ quadraphonic disc is of more than usual interest in that the setup of recording microphones was arranged specifically for the four-channel medium—the trumpets in *The Pagan Night*, for example, were fed to the rear channels instead of being made to emerge from their normal placement in the symphony orchestra. The two-channel stereophonic disc, I gather, was not a "mix-down" from quadraphonic, but is a straight mastering; certainly the sound seems closer up, with somewhat more presence, and there is decidedly higher volume at climactic moments than on the four-channel disc. The quadraphonic recording (as heard with a Lafayette SQ-L decoder) gave me the sense of being in the middle of the music in a vast space—say, on the parquet floor of a reverberant auditorium like Boston's Symphony Hall during a dress rehearsal. The experience is fascinating, but when it comes to works scored for conventionally placed performing forces, I'm afraid I still favor a listening point approximating that of the front row in the first balcony, though the four-channel technology could be used to give the option of additional reflected sound. Of course, quadraphonic recording and playback should be a godsend for works scored intentionally for spread-out forces—compositions by Gabrieli, Charles Ives, or Henry Brant, for instance. But a pitifully small amount of suitable repertoire has been specially recorded for the medium.

The cassette version of this *Le Sacre* seems to me about the same as the two-channel stereo disc but with somewhat less overall dynamic range. Personally, I shall continue to choose my listenings to *Le Sacre* for pleasure from the other two Columbia recordings—those of Stravinsky and Boulez. D.H.

STRAVINSKY: *The Rite of Spring* (see Collections—New England Conservatory)

RECORDING OF SPECIAL MERIT

VARÈSE: *Offrandes; Intégrales; Octandre; Ecuatorial.* Jan DeGaetani (mezzo-soprano, in *Offrandes*); Thomas Paul (bass, in *Ecuatorial*); Contemporary Chamber Ensemble. Arthur Weisberg cond. NONESUCH H 71269 \$2.98.

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

Varèse has not exactly been neglected on recordings, from the early Slonimsky *Ionisation* to Prausnitz to Craft to the fine European realizations of Cerha and Simonovitch. But against any competition this recording is exceptional. The cast of musicians assembled reads like a Who's Who of contemporary-music performance in America—with Arlette Sibon-Simonovitch from France joining FredERIC Rzewski on the stunning ondes Martenot parts of *Ecuatorial*. Particularly outstanding are the vocal pieces: the early *Offrandes* is gorgeously sung by Jan DeGaetani and *Ecuatorial* is impressively performed by Thomas Paul.

Ecuatorial stands out as one of Varèse's major compositions and a pivotal piece in his output. For the first time in his work electronic musical instruments come to the fore. (The piece was originally scored for the theremins but later revised by Varèse himself for the ondes.) Curiously enough, the ondes cry forth, not as part of the great brass, keyboard, and percussion sound masses, but in concert with the human voice. The texts of *Ecuatorial* come from a sacred book of the Mayas, and it is a vocal incantation addressed not to the machines of which Varèse was supposed to be enamored, but to an earlier civilization much more closely in touch with the life force than our own. This aspect of Varèse's work—remarkably pertinent in these days of concern about post-industrial society and the natural environment—has been little understood, although it is as important as (and actually not separate from) the much discussed block-sound/percussive/electronic aspects of his work. Not the least of the qualities of this record is that, framed as it is by two incantatory vocal works, it emphasizes this essential aspect of Varèse's thought.

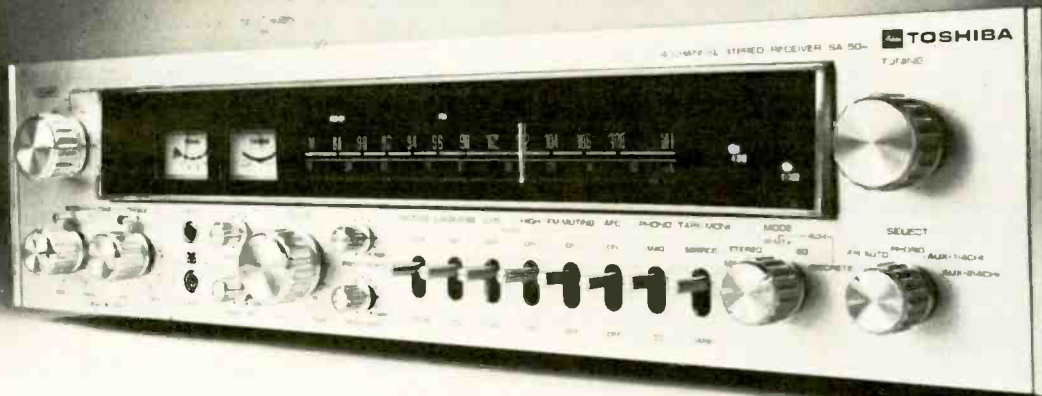
The quality of the performances is matched by the excellent recording. Nonesuch has done it again! E.S.

WEINER: *Csongor and Tiinde Suite, Op. 10; Suite, Op. 18 (Hungarian Folk Dances).* Orchestra of the Hungarian Radio and Television and Budapest Philharmonic Orchestra. Tamás Breitner cond. QUALITON LPX 11526 \$5.98.

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

Leó Weiner (1885-1960), an important figure in twentieth-century Hungarian music, has been accorded little international recognition

(Continued on page 128)



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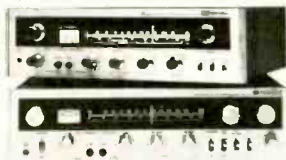
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despite the fact that his music was heard in the United States as early as 1908. Weiner was no innovator. He wrote music in the classic forms and in a neo-Romantic spirit. A musician of formidable training, he stamped all his works (there weren't many of them) with the mark of artistic refinement. In a way, he reminds me of Rachmaninoff: the sound of his music may be anachronistic in the twentieth century, but neither its beauty nor the composer's mastery can be denied.

Weiner's Opus 10 is incidental music in the form of an uninterrupted suite to the Hungarian poetic play *Csongor and Tünde*. The play is a fairy tale somewhat reminiscent of *The Midsummer Night's Dream* and, as a matter of fact, Weiner's music also shows some indebtedness to Mendelssohn. Its six episodes are picturesque, evocative, and beautifully orchestrated. The totality, however, is probably more effective in a theatrical context. Though the Hungarian national element is of passing significance in the *Csongor and Tünde* Suite, Op. 18, which is based on folk material worked out and orchestrated with sure artistry and great imagination. The performances are first-rate in both cases.

The liner note neglects to mention that Op. 18 was introduced in Rochester, N.Y., by Fritz Reiner. It does, however, pay this well-deserved tribute to Weiner's unique gifts as a teacher: "Many world-famous Hungarian musicians really learned how to make music in Leó Weiner's chamber music courses." Years ago I myself heard János Starker, an illustrious member of that group, express the same opinion. G.J.

WILLIAMSON, MALCOLM: *Piano Sonatas* (see Collections—Composers at the Piano)

COLLECTIONS

COMPOSERS AT THE PIANO. Richard Rodney Bennett: *Five Studies for Piano: Capriccio for Piano Duet*. Richard Rodney Bennett (piano). Thea Musgrave (piano, in duet). Thea Musgrave: *Monologue for Piano: Excursions*. Thea Musgrave (piano). Malcolm Williamson: *Sonata No. 2: Sonata for Two Pianos*. Malcolm Williamson (piano). Richard Rodney Bennett (piano, in duet). ARGO ZRG 704 \$5.95.

Performances: **Excellent**
Recording: **Excellent**

Recorded in association with the British Council, this disc presents a splendid recital of the piano music of three English composers playing their own music. Richard Rodney Bennett's *Five Studies for Piano* (1962-64) are first-rate, full of crisply etched ideas and playful, witty sentiments—a sound-world that displays the composer's clear musical thinking and fine ear for sonorities. There are minor European influences, but the *Studies* make a solidly personal statement. The *Capriccio for Piano Duet* (1968), also an impressive, vigorous work, behaves in certain textures and rhythms with a slightly more up-to-the-minute demeanor.

Thea Musgrave's *Monologue for Piano* (1960) is openly influenced by French music. Though it is, at least in part, a serial work, passages that owe something to Ravel and Debussy alternate with others that do not. It is a very good piece, though, and I suspect that a more muscular evocation of rhythms and contours would make it even more memo-

orable. *Excursions*, composed for pianists of limited abilities, is somewhat less interesting; it seems to have been modeled on Satie's *Sports et Divertissements*.

Malcolm Williamson's *Sonata No. 2* (written about 1958, and drastically revised in 1971-1972) is the darkest in coloration of the works on this disc. Quite severe in mood, it aims for deep expressiveness, but neither the quality of the materials nor the rhapsodic nature of their structuring allows for this result. The *Sonata for Two Pianos* (1967), a bit brighter in coloration, reflects Stravinsky in certain parts. But here, too, the ideas lack pith, and the rhetoric rambles.

The performances are all splendid, and so is the engineering. L.T.

RECORDING OF SPECIAL MERIT

VICTORIA DE LOS ANGELES/ALICIA DE LARROCHA: *The Concert at Hunter College*. Lites (arr. Tarragó): *Confiado jilguerillo*. Laserna (arr. Roma): *El Tripili*. Granados: *Nine Tonadillas*; *Six Canciones Amatorias*. Falla: *Seven Canciones Populares Españolas*. Giménez: *Zapateado (from La Tempranica)*. Victoria de los Angeles (soprano); Alicia de Larrocha (piano). ANGEL S 36896 \$5.98.

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

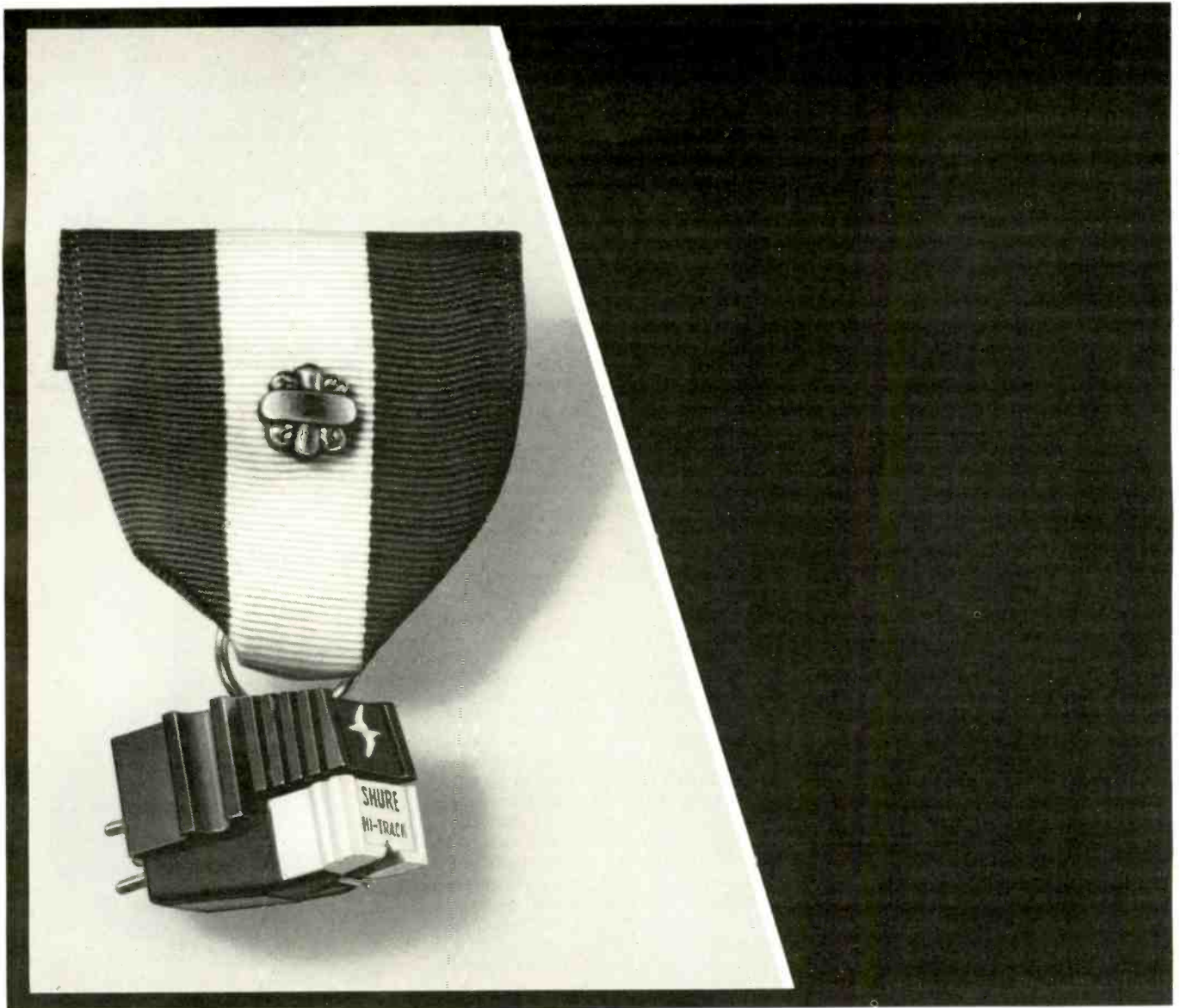
It seems odd, to say the least, that these two enchanting Catalan ladies had to come all the way to New York to appear together in concert for the first time, but that is what happened on November 13, 1971, to the utter delight of all those present. Thousands more can now share that delight through this well-engineered record, but of course even the best record cannot recapture such an extraordinary occasion. Aside from the missing visual appeal, which in this instance was considerable, the record points up the fact that Miss De los Angeles' command of the musical challenge is not always secure—the high tessitura of the *Canciones Amatorias* finds her particularly uncomfortable. But the warmth of her personality, the special flavor of her communication, and her irresistible delivery still work wonders: I am sure she could hold an audience spellbound by reading the membership list of the Barcelona Chamber of Commerce. Singer and pianist literally breathe together here, and the contribution of Miss De Larrocha (playing everything from memory) is superb. The music, of course, is delightful all the way. G.J.

BRONISLAW HUBERMANN: *Recital. Beethoven: Sonata for Piano and Violin No. 9, in A Minor, Op. 47 ("Kreutzer")*. Bizet-Sarasate: *Carmen Fantasy*. Bazzini: *La Ronde des Lutins*. Gluck: *Melodie from Orfeo*. Sarasate: *Jota Navarra*. Mendelssohn: *Violin Concerto in E Minor, Op. 64: Andante and Finale*. Paganini: *Violin Concerto No. 2: La Clochette*. Bronislaw Hubermann (violin); Siegfried Schultze and Paul Frenkel (piano). ENCORE ELP 001 \$6.00 (from Encore Records, c/o L. Gerber, Phoenicia, N.Y. 12464).

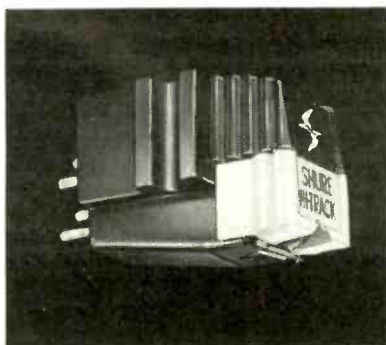
Performance: **Virtuosic and individual**
Recording: **Oldish but listenable**

Bronislaw Hubermann (1882-1947) was a strongly individual artist—a Furtwängler of the fiddle, you might say. He studied with the best teachers of his time (Marsick and Joachim), but broke away from them relatively ear-

(Continued on page 130)



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ly in search of an individual style. He never became a popular favorite in America, and recorded relatively little. Consequently, in contrast to Kreisler, Elman, Heifetz, and Szigeti, whose fame was propagated by recordings in the years between the two World Wars, Hubermann attracted much less attention here, but in Europe he rivaled and at times even exceeded these giants in box-office appeal. As for the critics, he had both partisans and detractors in large numbers, as individualists are likely to have.

This disc from Encore, modest in appearance and totally lacking in annotations, contains quite a lot of interesting material. The sources are Brunswick acoustics recorded in the early 1920's, the considerable surface noise of which can be attenuated with your amplifier's controls. A number of things emerge almost instantly: Hubermann was an intense, highly dramatic performer. His tone was lean and pointed, his intonation—a matter of some controversy in contemporaneous criticism—remarkably firm. Toward the end of his career, he no longer possessed an impressive technique, but these early Brunswicks attest to his one-time dazzling technical command, particularly in fast passage work and *staccati*.

Hubermann's "Kreutzer" Sonata will not be to everyone's taste. In the twelfth measure of the first movement we get the first demonstration of the kind of drooping *glissando* that is anathema to today's fiddlers. Hubermann employed it relentlessly, with a particularly damaging effect in the second variation of the Andante. His *rubato*, too, is exaggerated by today's standard, yet the *ritardando* with which he prepares us for the main theme of the final movement is tasteful and extremely effective. There are other things to admire here: the conception is on a grand scale, there is sustained drama heightened by some bold and slashing attacks, and the Presto is breathtakingly fast yet clearly articulated. This is surely Beethoven playing of rare authority.

The finger-twisting demands of the Sarasate, Bazzini, and Paganini pieces do not find him wanting. The *glissandi* are again excessive in the Gluck *Melodie*, but in the two abbreviated Mendelssohn movements there is an abundance of grace and lilt. The recording is not particularly kind to the piano tone, but Siegfried Schultze holds his own in the "Kreutzer" Sonata. It is good to have this souvenir of an unjustly neglected artist, who was memorialized by Carl Flesch (a non-admirer) in this manner: "... In the history of violin playing he will survive as the most remarkable representative of unbridled individualism, a fascinating outsider." G.J.

MUSIC FOR THE DOMRA. Budashkin: *Concerto for Domra and Orchestra.* Barchunov: *Concert Fantasy for Domra and Folk Instrument Orchestra; Concerto No. 4, for Domra and Folk Instrument Orchestra.* Petrenko: *Fantasy for Domra and Folk Instrument Orchestra.* Osipov Balalaika Orchestra, Viktor Dubrovsky cond. MELODIYA/ANGEL SR 40200 \$5.98.

Performance: The "people" can have it!
Recording: Good

The lowly domra, a stringed instrument once used in Russia mainly to provide droning accompaniments to sentimental songs, has come into its own in recent years as a solo star in compositions prepared for Soviet "folk concerts," which presumably speak directly to

"the people." Here we have a generous set of examples. Three composers are represented, but my perhaps ill-attuned ears found it rather difficult to distinguish one from the other. Nikolai Budashkin, for example, builds a seven-minute allegro, a *dimka* that goes on for another six and a half minutes, and a five-minute finale that seems to go on forever. Pavel Barchunov, in his *Concert Fantasy*, provides more of the same, although I was somewhat struck by the dreamy, nostalgic atmosphere he evokes in his Concerto No. 4 for Domra and Orchestra. By the time Mikhail Petrenko's *Fantasy for Domra and Folk Instrument Orchestra* came on, I was too stupefied to absorb any more of this proficient, banal, and boring music. The orchestra uses balalaikas, twanging away behind the domra, along with accordions, pipes, shepherds' horns, and other "people's instruments" to keep the whole sounding properly egalitarian. P.K.



The domra, a Russian folk instrument now supplementing the balalaika in the USSR

RECORDING OF SPECIAL MERIT

NEW ENGLAND CONSERVATORY WIND ENSEMBLE: *Recital.* Hindemith: *Symphony in B-flat Major.* Persichetti: *Symphony No. 6, Op. 69.* New England Conservatory Wind Ensemble, Frank L. Battisti cond. **NEW ENGLAND CONSERVATORY Volume 3** (available from New England Conservatory Recordings, Alumni Association, 290 Huntington Ave., Boston, Mass. 02115, in return for a contribution to the New England Conservatory Scholarship Fund of \$5.00 a disc).

NEW ENGLAND CONSERVATORY CHORUS: *Twentieth-Century Choral Music.* Ives: *The Sixty-Seventh Psalm.* Stravinsky: *Ave Maria; Anthem; The Dove Descending.* Poulenc: *Two Christmas Motets; O Magnum Mysterium; Hodie Christus Natus Est.* Schoenberg: *De Profundis.* Anon.: *Six Ancient Georgian Songs.* Gretchaninoff: *Canticle of the Wisemen.* Kolovsky: *On the Mountain, On the Hill.* New England Conservatory Chorus, Lorna Cooke de Varon cond. **NEW ENGLAND CONSERVATORY Volume 4** (see above).

RECORDING OF SPECIAL MERIT

NEW ENGLAND CONSERVATORY SYMPHONY ORCHESTRA: *Concert.* Stravinsky: *The Rite of Spring.* New England Conservatory

tory Symphony Orchestra, Gunther Schuller cond. **NEW ENGLAND CONSERVATORY** Volume 5 (see above).

Performances: **Splendid ensemble and orchestra, fair chorus**

Recordings: **Excellent**

By now it is an open secret that student orchestras at the best American music schools are unrivaled by student orchestras anywhere or, indeed, by the professional orchestras of a great many of the world's major cities. One has only to hear orchestras such as those of the Juilliard School, the New England Conservatory, the Eastman School, or some Midwestern universities to be filled with surprise and national pride. They play with the sturdy confidence of professionals, yet with the bright vigor and eagerness of youth, not only in the "easy" old repertoire but in monstrosously sophisticated and much more difficult modern works.

Of the three discs I received in this set by the New England Conservatory, the performance by Gunther Schuller (president of the Conservatory) and the student orchestra of Stravinsky's *Le Sacre du printemps* is the real spectacular (though it was recorded at an actual performance, not in a studio, and received no editing). It is so fine in spirit, interpretation, and execution that I would not hesitate to recommend it for anyone's second recording of this work. It is on a par with almost any professional orchestra's record of *Le Sacre* I have heard. Schuller's direction of it is superb: sensitive, rhythmically suave and sentient, cohesive, and altogether understanding. Though there is a 'student-type' blemish here and there, no harm is done. The entire performance is crisp and alive with musicality.

Volume 3 is devoted to music for wind ensemble (the latter-day inheritor of territory formerly held by the "concert band"). Two splendid works are presented: Vincent Persichetti's vigorous, colorful, and lyrical Symphony No. 6 (Op. 69) and Paul Hindemith's Symphony in B-flat. I can hardly imagine a more fortuitous pairing. The Persichetti Symphony clearly and dynamically presents an American rhythmic and melodic ethos, with instrumentation ranging from one end of the color chart to the other, while the Hindemith deals in an entirely different world of ideas and hues—many of them relating to *Mathis der Maler*.

Volume 4 does not, unfortunately, match the others in quality. The chorus sings with the disturbing combination of vocal tremolo, indeterminate intonation, unperceptive phrasing, and sameness of interpretation that characterizes too many amateur choirs. And the anonymous Russian (Georgian) choral music on the second side is not worth very much attention. **L.T.**

RECORDING OF SPECIAL MERIT

NEW MUSIC FOR TRUMPET. Stravinsky: *Fanfare for a New Theater*. Ahlstrom: *Scherzo*. Erickson: *Oceans*. Gaburo: *Mouth-Piece*. Ernst: *Exit*. Partch: *Ulysses Departs from the Edge of the World*. Jack Logan (trumpet); various San Diego instrumentalists. **ORION** ORS 7294 \$5.98.

Performances: **Excellent**

Recording: **Very good**

Hodge-podge programs do not usually make good recordings, but I enjoyed this one a great deal. The connecting thread, besides the pres-

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The Vienna Philharmonic Orchestra—Istvan Kertesz

ence of the very able Jack Logan, is the lively musical activity in the San Diego area, where most of these composers and performers work and teach. There is a nice progression here: from the tiny twelve-tone Stravinsky Fanfare to the unlikely, clever, somewhat slick American-school David Ahlstrom Scherzo: Robert Erickson's *Oceans*, a very beautiful resonance piece on a single extended harmonic structure; Kenneth Gaburo's amusing *Mouth-Piece*—the score is reproduced on the album cover but not the more important poetic text on which the sounds are based; a good tape-and-trumpet piece by David Ernst, a composer not previously known to me; and finally, a bit of early Harry Partch—Ulysses as a hobo!—with the accompaniment of a Partch instrumental consort and a characteristic Partch exhortation at the end addressed to Ulysses the wanderer himself: "Have you ever been arrested before?" Good recordings, good pieces, and good performances. *E.S.*

TOBI REISER: *Salzburg Dance Music. Mazurka from Elixhausen Bei Salzburg; Wasser Auf D'Mühl Waltz; Umi Geht's Bavarian Polka; Bohemian Peasant Polka; Honaken-polka from the Pongau; Geigenjodler;* and fourteen others. Tobi Reiser Quintet; Salzburger Guitar Trio. **MUSICAL HERITAGE SOCIETY** MHS 1419 \$2.98 (plus 65¢ handling charge, available from the Musical Heritage Society, Inc., 1991 Broadway, New York, N.Y. 10023).

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

If you were a musician in Salzburg around the middle of the seventeenth century, and a member in good standing of a royal guild, you were expected to be on hand during holidays and other festive occasions to play for the celebrants. What you played were waltzes from Bavaria, peasant polkas from the Pongau, and as many mazurkas as the populace could bear—which were, apparently, a great many indeed. This homely but delightful folk music was the stuff out of which Schubert and Mozart (who was born there) wove some of their most entrancing passages. Tobi Reiser and his son Tobi Jr. are twentieth-century Salzburg musicians who love this music and perform it with skill, affection, and a full allegiance to the old traditions. Under their ministrations, the music-box charm of the material emerges with a surprising delicacy—one can really imagine courtiers, not circus elephants, prancing to its strains. Even Harald Lohner and Werner Christof's "yodelling violins" create their bucolic effects with a certain subtlety, while the sounds of flutes, harps, guitars, harmonicas, and contrabasses blend pleasantly to evoke an atmosphere of old stone fortresses and formal gardens that makes it a pleasure to be a musical tourist in those ancient and prosperous environs. *P.K.*

RECORDING OF SPECIAL MERIT

ELISABETH RETHBERG: *Opera and Operetta Arias. Verdi: Ritorna vincitor; Nile Scene. Un Ballo in Maschera; Ma dall'arido stelo; Morrò, ma prima in grazia. Otello: Salce, salce (Willow Song); Ave Maria. Suppé: Boccaccio: Hab'ich nur deine Liebe. J. Strauss: Die Fledermaus; Czardas. Elisabeth Rethberg (soprano); Giacomo Lauri-Volpi (tenor in Nile Scene); Giuseppe de*

Luca (baritone in Nile Scene); Orchestras conducted by Rosario Bourdon and Fritz Zweig. **RCA VICTROLA** Ⓜ VIC 1683 \$2.98.

Performance: **Outstanding**
Recording: **Dated but serviceable**

This disc was conceived to honor the fiftieth anniversary of Elisabeth Rethberg's Metropolitan debut—as Aida, November 22, 1922. Its first side offers a nearly complete Nile Scene, pieced together from various 78-rpm sides recorded between 1927 and 1930 and never before released in continuity. As a beginning collector in the 1930's, I learned the Nile Scene through these records; they have always served as the vocal standard by which other versions were to be judged. As for Rethberg's colleagues, tenor Giacomo Lauri-Volpi compensates for a certain lack of heroic quality in his tone with youthful ardor, elegant phrasing, and perfect intonation; baritone



ELISABETH RETHBERG
A model from whom all sopranos can learn

Giuseppe de Luca sings with his customary impeccable style and with a vigor belying his fifty-four years.

But this is Rethberg's disc, and she is magnificent. In her prime she must have been the incarnation of dependability, for the consistently high quality of her singing in these selections is nothing short of amazing. Her *Aida* is superb all the way, a display of warmth, secure singing, soaring and effortless in the high register. The *Ballo* and *Otello* arias, which have appeared in previous reissues, have always been regarded as model renditions, and the flavorful and charming operetta excerpts suggest a versatility far beyond the limits of Rethberg's relatively small recorded legacy. By the way, has there been another soprano in the past fifty years who has equalled Rethberg in her persuasive command of both the German (Wagner) and the Italian (Verdi) repertoires?

Technically, the release is not above reproach. The seams of the Nile Scene have been expertly joined, and the handling of the undersized orchestra calls for posthumous praise for the long-uncredited Rosario Bourdon. But surface quality varies, and the crackling is sometimes intrusive. And though I certainly welcome Rethberg's sumptuously sung "Ritorna vincitor," its inclusion was probably responsible for the fact that the first

verse of "O patria mia" was edited out. Still and all, this disc is a must not only for collectors but for vocal teachers and aspiring sopranos as well. *G.J.*

RECORDING OF SPECIAL MERIT

GERARD SCHWARZ: *The New Trumpet. Davies: Sonata for Trumpet and Piano. Dlugoszewski: Space Is a Diamond. Hellerman: Passages 13—The Fire, for Trumpet and Tape. Gerard Schwarz (trumpet); Ursula Oppens (piano). NONESUCH* H 71275 \$2.98.

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

GERARD SCHWARZ: *The French Influence! Music for the Trumpet. Honegger: Intrada. Ibert: Impromptu. Senee: Concertino. Enesco: Legende. Jolivet: Air de Bravoure. Bozza: Caprice. Charlier: Solo de Concours. Pascal: Capriccio. Gerard Schwarz (trumpet); Kun Woo Paik (piano). HARLEQUIN* (unnumbered) \$5.98 postpaid (available by mail from Harlequin Records, 350 West 55th Street, New York, N.Y. 10019.)

Performance: **Good**
Recording: **Moderately good**

Gerard Schwarz is a young trumpeter whose career has already led him into a great many different areas: he is a member of the American Brass Quintet and the Group for Contemporary Music, first trumpet of the American Symphony, of the Aspen Festival Orchestra, and of the recently formed Speculum Musicae ensemble, conductor for the Erick Hawkins Dance Company—these are only a few of his activities. He also performs concerts here and abroad and has recorded under several record labels.

The two discs at hand display many facets of Schwarz's interpretive talent. By far the most impressive piece is Lucia Dlugoszewski's *Space Is a Diamond* (1970), a fascinating and demanding work for unaccompanied trumpet. Ms. Dlugoszewski has been composer-collaborator with Erick Hawkins and his dance company for a number of years, and her music has developed along thoroughly individual lines. In this particular work, written especially for Schwarz, the composer has discovered a technical and musical language for the trumpet that I find truly astonishing. She expands the instrument's range to four-and-a-half octaves. Mutes of all kinds are used, but so subtly! Suave, brilliant glissandos, unusual tonguing techniques, simultaneous playing and singing through the mouthpiece—here are more sounds than I thought the trumpet could produce. And yet, most remarkable of all, *Space Is a Diamond* does not sound like an "effects" piece. A compelling thread of emotional continuity runs through it and integrates all the techniques.

Peter Maxwell Davies' early *Sonata for Trumpet and Piano* (1955) is a more conventionally structured work, full of motoric energy and clean, lean writing. It must have sounded more "advanced" in 1955 than it does now, and pretty remarkable coming from a twenty-one-year-old composer.

William Hellermann created *Passages 13—The Fire* (1970-1971) for Schwarz. In this twenty-five-minute work for trumpet and electronic tape, with a text by Robert Duncan, four speaking voices are woven into the electronic sounds, and fragmented bits of text

(Continued on page 136)

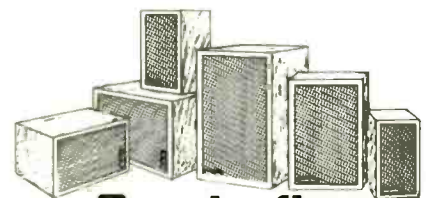
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Museum of the American Indian. (Steve Foundation)

Time, the early years of this century; place, Montana; occasion, a tobacco-planting ceremony by Sees with his Ears, Takes Enemy, Eagle, and other members of the Crow tribe.

AMERICAN INDIAN MUSIC

A brief guide to the (recorded) real thing

By Jamake Mamake Highwater

THE indigenous peoples of North America have been romanticized, slandered, or brutalized ever since Columbus set foot on this continent. The invasion from the sea was naturally led by men of the military, but the rear was brought up by men of music. And it sometimes seems that the composers may have made the more determined effort to rip off the poor Indian. Everyone from Dvořák to John Alden Carpenter has attempted to capture the red man in a musical cage of notes and bar-lines forged in western Europe. But none of them has managed to seize either the Indian mood or the Indian mentality: their compositions, though intended to honor the "noble savage," are usually embarrassing to Indians.

It is not always just the Indians who are embarrassed, of course—just think of Nelson Eddy singing *The Indian Love Call* or that famous beer commercial accompanied by *The Land of the Sky Blue Water*—both songs written by Anglos (as the Indian calls the white man) with mere hints of authentic Indian melodies. Perhaps because of such outrageous use of Indian music—and despite the current faddish fixation on all things Indian—most Americans have almost no notion of what real Indian music sounds like. It is generally confused with the output of movie composers like Alfred Newman—the cavalry bugle pitted against the tom-tom in a perpetual rewrite of the *1812 Overture*.

Today there are still over two hundred distinct Indian tribes in the United States, and a total population of almost a million. Each of these tribes has its own language and its own art, music, dance, and cultural viewpoint. But there are regional groups of tribes that have certain linguistic and cultural affinities. The Iroquoian group is a perfect example of this tribal unity. The various Sioux groups have a similar kinship. So do the Menominee, Mandan, and Hidatsa, and the tribes of the Puget Sound in the Northwest. The Delaware, Cherokee, Choctaw, and Creek are a family. The tribes of the Great Basin constitute yet another group: Paiute, Washo, Ute, Bannock, and Shoshone. The Plains Indians—the best known, for their colorful customs led to the notion

that all Indians wear feathered bonnets and live in teepees—include the Comanche, Cheyenne, Kiowa, Caddo, Wichita, and Pawnee tribes. And, of course, there are the numerous Pueblo groups who, though they dwell only five or six miles from each other and often speak entirely different languages, possess an intricate cultural unity: Taos, San Ildefonso, Zuni, San Juan, Hopi, and so on. And, despite the enormous diversity of tribal styles, there is an overriding homogeneity of form that defines all Indian culture and sets its music apart from the music of other cultures.

The most obvious aspects of Indian music are the prevalence of drums and rattles and the characteristic harshness of vocal tone—a sort of flat, unemotional sound. Stripped to its essentials, Indian music consists of unison vocal lines with percussive accompaniment. The voice is typically strongly accented, with tension in the vocal cords and a kind of Oriental pulsation on the long notes. It is basically linear music, like that of Asia. The melodic line usually descends from a higher to a lower pitch in either terraced or cascading intervals. Melodic polyphony—the simultaneous voicing of two or more differing lines—is nonexistent, except for an occasional droning accompaniment of a voice or voices using a single, sustained pitch. (The lack of polyphony may be a result of the fact that women take little part in Indian ritual.) Harmony is also absent. Instruments are used strictly for rhythmic accompaniment, and there is very little purely instrumental music—and therefore little solo drumming or instrumental virtuosity. Structurally, uneven bar lengths and asymmetrical rhythmic patterns are far more common than consistent measure lengths.

So much for technical description. But to really understand anything about Indian music, it is necessary to understand something about the values of Indians, which are strikingly different from those prevailing in this country, and from which Indian music originates. First of all, most American Indians have a more or less Oriental view of life

and of the world (many anthropologists believe that Indians migrated to the Western Hemisphere from Asia). Basically, the Indian thinks in terms of a synthesis or whole, whereas most Anglos are analytical, thinking not of the whole but of the component parts, in scientific fashion. Next, Indians look upon nature as perfect. Therefore, they are content with their environment and attempt to live in harmony with it rather than alter it. They also are not inclined to place any one thing in a position of superiority over any other thing; for example, even the fox is man's brother and has a soul. Thus, for the Indian, the world is perfect and whole, and all things great and small are part of that perfection.

Finally, the Indian mind operates on a plane of great subtlety, and is habitually given to poetic understatement. Thus, from the Indian point of view the Anglo world is one of exaggeration, hyperbole, or worse. And because they think in terms of the whole, Indians depend largely upon context for meaning.

WITH these differences in mind, it is a bit easier to grasp the nature of American Indian music. For one thing, most Indians view their music as an integral part of an event—part of life—rather than as a separate aesthetic entity. Music is a *process* rather than an end product. It is not a separate entity that is *used* in nonmusical activities. The Indian sees his music as one with his dancing, his dancing as one with his worship, and his worship as one with his living.

In most Indian music and dance, a mere suggestion is sufficient. Songs may contain meaningless syllables, archaic words, loan words, or even special phonemic alterations. These devices make the song very different from the spoken prose style of a tribe, and they tend to obscure literal meanings. Such use of lyrics, far from being "primitive," as some Westerners think, is considered an important device of dignified restraint and good taste by Indians.

Music is highly valued for its magical power, and, by European standards, there is a rather personal, mystical basis for aesthetic judgment among Indians. If music is well performed it is "good" rather than "beautiful." And, despite long exposure to Anglo music, with its wide variety of instruments, Indians still keep their own music simple—probably because, to them, the voices, drums, and rattles of their music are the natural sounds of their landscape and thus cannot be "improved," for they are perfect as they are.

In contemporary times, a few tribal singers have become known to a wider public: Edward Lee Natay, a Navajo, was a tribal singer, as are the Apache Philip Cassadore and William Horncloud of the Sioux Nation. Young Indian musicians have also emerged and have attempted to bridge the cultural gap between the experience of being an Indian with an ancient heritage and the experience of being young in today's United States. Buffy Sainte-Marie and the pop group called Redbone are probably the best-known examples of the singer-composers who are consciously trying to deal with Indian attitudes in terms of pop culture. It is no small tribute to them that so far they seem to be more successful in relaying the Indian

message than their Anglo classical predecessors were.

Most Indian music, however, is recorded for purchase by Indians living in American outposts and on reservations, and happily there are few examples of either commercialization or excessive "folk" pedantry. Of the anthropological collections, the albums offered by Folkways are probably the least rewarding, whereas the recordings of the Library of Congress, though old, are excellent documents. Poor sound reproduction is common to the products of most of the small companies that record and distribute Indian music; notable exceptions are Indian House, P.O. Box 472, Taos, N.M. 87571, and Canyon Records, 6050 North 3rd Street, Phoenix, Ariz. 85012. The two albums most accessible to the non-Indian, and recommended for novices, are "Sounds of Indian America" (Indian House 9501) and "Crow Dog's Paradise, Songs of the Sioux" (Elektra EKS 74091). Also of particular interest is "My Beautiful Land" (Canyon 6078), an excellent collection of Navajo songs sung by Danny Whitefeather Gegay, Cindy Yazzie, and Roger McCabe; and "Natay, Navajo Singer" (Canyon 6160), a fine showpiece for Edward Lee Natay. Though considerable controversy surrounds the public performance of sacred Indian rites, and many Indians strongly disapprove of such secularization, a rare and mysterious Navajo ceremony is documented on "Night & Daylight Yeibichei" (Indian House 1502). The *Yeibichei* is performed in the winter to treat a patient afflicted with eye trouble, ear trouble, or paralysis.

Despite the decimation of his people, the American Indian has, incredibly, sustained and indeed glorified his ancient culture, retaining his language, his religion, his dances, his music, and his arts. He has miraculously persisted as an Indian.

But his music has not been very accessible to others. Like most Asiatic and African music, it seems redundant and static to Anglos; it is not an entertainment or an art form, so it cannot possibly satisfy the traditional purposes of European music. But it does exhibit a kind of musical *consciousness* that many listeners can learn to appreciate. It is part of the mystic experience of Indian ritual, part also of that experience Charles Ives sought throughout his life and called "the harmony of the spheres." Anglo composers from Scriabin to Messiaen and Partch have reached for this mystery, this natural province of the Indian, but the experience must be so intangibly simple that it easily slips through the complex net of the classical European sensibility. All this reminds Indians of an ancient axiom. An ear of corn, our forefathers told us, is very complicated. But for the corn-plant, it is easy.

J. Marks (Jamake Mumake Highwater) is the son of a Cherokee mother and the author of the forthcoming Fodor Guide to Indian America, to be published in September by the David McKay Publishing Company, New York. He has prepared an extensive discography of Indian music for STEREO REVIEW readers. To obtain your copy, send a stamped, self-addressed envelope to: Indian Discography, c/o STEREO REVIEW, Ziff-Davis Publishing Company, One Park Avenue, New York, N. Y. 10016.

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appear here and there amidst trumpet melodies. The work seems rather Olympian, partly, I suspect, because of its reverence for the poetic word.

Schwarz plays all three of these works in masterly fashion, especially the two he commissioned, which, with good reason, seem to fascinate him. His range of timbres is a joy, and so are the subtleties of phrasing and other articulation. And Ursula Oppens' piano accompaniment in the Davies Sonata is excellent.

The second disc heralds the entry onto the scene of a small, new, independent label—Harlequin Records—which will record recitalists and chamber groups and distribute their records by direct mail. As a first release, this one is commendable, though I could quibble with the balance between the soloist and his piano accompanist. Schwarz does not sound immaculate in these lightweight French pieces, as he does on the Nonesuch recording. Possibly the music interested him less. But there are several fetching works—of modest importance, to be sure—that convey attitudes toward trumpet playing at such places, for instance, as the Paris Conservatoire. *L.T.*

RECORDING OF SPECIAL MERIT

JOSEPH SZIGETI: *The Art of Joseph Szigeti*. J. S. Bach: *Concerto in D Minor for Violin, Strings, and Continuo (BWV 1052, reconstructed by Reitz)*; *Sonata No. 1, in G Minor, for Unaccompanied Violin (BWV 1001); Praeludium from Partita No. 3, in E Major, for Unaccompanied Violin (BWV 1006/1)*. **Bartók:** *Hungarian Folk Tunes (arr. Szigeti); Rumanian Folk Dances (arr. Székely)*. **Beethoven:** *Violin Concerto in D Major, Op. 61; Violin Sonatas: No. 5, in F Major, Op. 24 ("Spring"); No. 10, in G Major, Op. 96*. **Brahms:** *Violin Concerto in D Major, Op. 77*. **Dvořák:** *Slavonic Dance in E Minor, Op. 72, No. 2 (arr. Kreisler)*. **Handel:** *Sonata in D Major for Violin and Continuo, Op. 1, No. 13*. **Kreisler:** *Liebesleid*. **Mendelssohn:** *Violin Concerto in E Minor, Op. 64*. **Mozart:** *Violin Concerto No. 4, in D Major (K. 218)*. **Rimsky-Korsakov:** *Flight of the Bumblebee (arr. Hartmann)*. **Prokofiev:** *Violin Concerto No. 1, in D Major, Op. 19*. **Stravinsky:** *Pastorale (arr. Dushkin and Stravinsky)*. Joseph Szigeti (violin); members of the Orchestra of the New Friends of Music. Fritz Stiedry cond. (in Bach Concerto); Béla Bartók (piano, in Bartók); British Symphony Orchestra. Bruno Walter cond. (in Beethoven Concerto); Artur Schnabel (piano, in Beethoven sonatas); Hallé Orchestra. Hamilton Harty cond. (in Brahms Concerto); Nikita Magaloff (piano, in Dvořák, Handel, Kreisler, Rimsky-Korsakov, and Stravinsky); London Philharmonic Orchestra, Sir Thomas Beecham cond. (in Mendelssohn, Mozart, and Prokofiev concertos). COLUMBIA M6X 31513 six discs \$23.98.

Performance: **Distinguished**
Recording: **Surprisingly good**

Last September, Joseph Szigeti celebrated his eightieth birthday. This album of six records, put together to commemorate that event, contains a remarkable series of performances. The earliest, the Bach unaccompanied *Praeludium* from Partita No. 3, was recorded in 1908; the latest, two Beethoven sonatas not available commercially until now, were recorded live at a concert with Artur Schnabel at the Frick Museum in 1948. In between these are recordings that have been considered classics of the phonographic rep-

ertoire ever since they were issued, particularly the Mendelssohn Concerto with Beecham (1933), the Beethoven Concerto with Walter (1932), the Brahms Concerto with Hamilton Harty (1928), and, last but not least, the Prokofiev First Concerto with Beecham (1935).

Many versions of these pieces have been issued—and deleted from the catalog—since Szigeti's interpretations were recorded: such contemporaries as Heifetz, Milstein, Kreisler, Menuhin, Oistrakh, and Francescatti come to mind as having recorded some of them. Unfortunately, many people are unfamiliar with Szigeti's art, for few of his performances have been available on discs in recent years, and most of these were recorded live. But Szigeti's interpretations are among the greatest. His strength, I think, was not a matter of tonal beauty (in later years, indeed, he gradually



JOSEPH SZIGETI
Rarely equalled violin virtuosity

developed a pronounced unevenness of bowing and left-hand control). Rather, it was an overall view of the music—that and an intensity and lyricism that could scarcely be equalled, let alone surpassed, by any of the older generation of violinists I have mentioned or by any of the younger fiddlers of today. For myself, I am a great admirer of Heifetz, Kreisler, and Oistrakh; yet I can say in all honesty that I have never heard better performances of the Mendelssohn, Beethoven, and Brahms concertos than those contained in this album.

Szigeti was especially fortunate in so often having distinguished accompanists, as he obviously did for the Mendelssohn, Beethoven, and Brahms concertos and for the twelve or so minutes of Bartók that conclude side six. This side is, by and large, a collection of encore pieces; all of them are played with the greatest sensitivity and virtuosity, but the Bartók pieces, with the composer at the piano, are particularly satisfying. The same level of music-making can be heard in the Beethoven sonatas, to which Artur Schnabel lends tremendous authority. I found the Bach and Handel least satisfying, for they seem too intense and the phrases too much run together; Baroque style is better served today.

The album has been exceedingly well planned, and the sonics (except for the constricted Bach Concerto) are astonishingly good. Whoever was responsible for the transfers should be congratulated. The principal congratulations, however, properly belong to the star of the album, one of this century's most distinguished performers. *I.K.*

RECORDINGS OF SPECIAL MERIT

EDWARD TARR: *Trumpet Concertos*. Hertel: *Double Concerto in E-flat Major for Trumpet, Oboe, Strings, and Continuo*. L. Mozart: *Concerto in D Major for Trumpet, Two Horns, Strings, and Continuo*. Hummel: *Concerto in E Major for Trumpet and Orchestra*. Edward Tarr (trumpet); Helmut Hucke (oboe); Consortium Musicum, Fritz Lehan cond. NONESUCH H 71270 \$2.98.

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

DON SMITHERS: *The Virtuoso Trumpet*. Bononcini: *Sinfonia No. 8 with Trumpet (1685)*. D. Gabrielli: *Sonata à six with Trumpet*. Grossi: *Sonata No. 12 à cinq with Trumpet (1682)*. Perti: *Sinfonia avanti la Serenata*. Torelli: *Concerto for Trumpet, Strings, and Continuo; Sinfonia with Trumpet; Sonata à cinq, No. 1, for Trumpet, Strings, and Continuo*. Don Smithers (trumpet); Maria Teresa Garatti (harpsichord); I Musici. PHILIPS 6500 304 \$6.98.

Performance: **Brilliant**
Recording: **Superior**

Both Edward Tarr and Don Smithers are among today's finest performers on the trumpet. Both are also musicologists involved in research and teaching, Tarr at the Schola Cantorum Basiliensis in Switzerland and Smithers at the University of Syracuse, where he is finishing a book on the history of early trumpet music. Neither performer is new to records, each having been involved in numerous recordings of both ensemble and solo trumpet literature.

Tarr's latest recording (it is actually several years old, having been issued originally in Germany on Electrola) is as fine an example of this performer's art as any I know. The repertoire is partly off-beat (the early-Classical double concerto by Johann Wilhelm Hertel, who lived between 1727 and 1789), partly more familiar (the Leopold Mozart concerto, with its devastatingly high solo trumpet, and the delightful 1803 concerto by Mozart's pupil Johann Nepomuk Hummel). In all three works Tarr acquires himself with the greatest distinction; not only is he a technically superb player, but he interprets sensitively. And he understands style. The accompaniments are models, and the recorded sound is very satisfying. By all means try this disc, one of the most enjoyable trumpet records available.

Don Smithers' collection, centered around the trumpet repertoire of the Bologna school, is a continuation of a Baroque trumpet anthology he recorded for Philips with the Academy of St. Martin-in-the-Fields. The preponderance of D Major tonality can't be helped, of course, but it is unfortunate because one concerto seems to run into another—and the record's indistinct banding is also confusing. The pieces themselves, each concerto or sinfonia ranging from four to six movements, are generally quite brilliantly written for the solo trumpet; Torelli's, I think, are the best. The editing of the music (most of it by the soloist, as with Tarr's disc) is well done, although Smithers adds unwritten cadential trills sparingly. His own playing is exciting and well balanced (considering his modern instrument) with the accompaniment. I Musici play with immense vitality and an extremely creamy tone, and Maria Teresa Garatti provides some imaginative flourishes on occasion. The sonics are spectacular. *I.K.*

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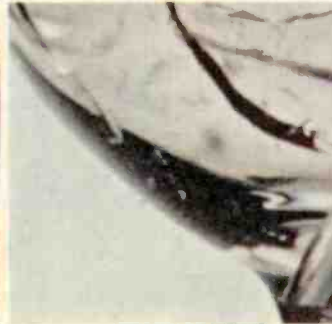
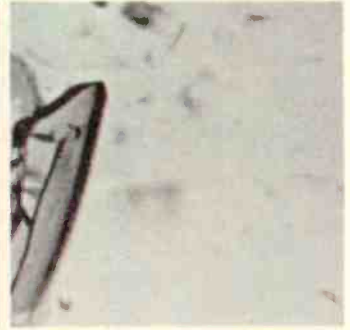
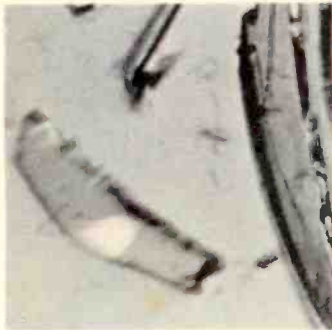
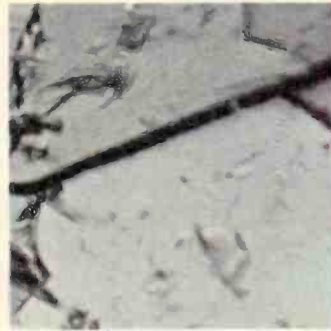
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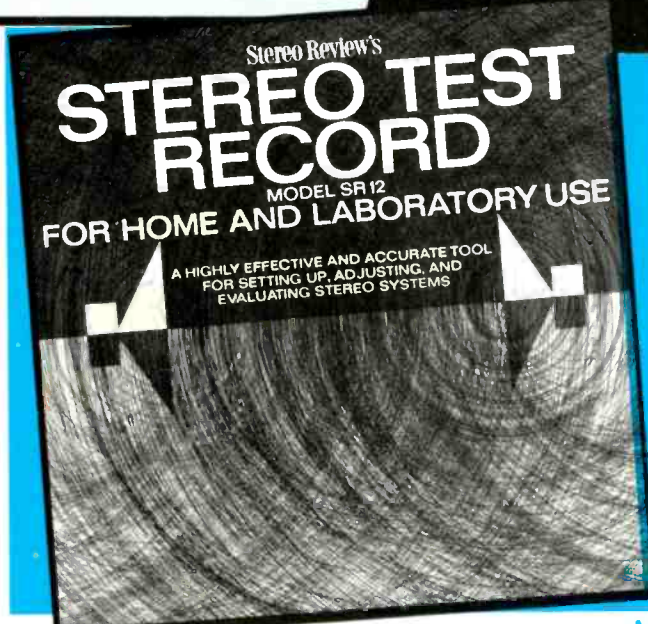
Announcing the **NEW STANDARD** in Stereo Testing!

Get the All-New Model SR12 STEREO TEST RECORD

The most complete...most sophisticated...most versatile
Test Disc available today... **For Just \$5.98!**

Who Needs the New Model SR12?

If you've read this far, you do. Whether you're an avid audiophile who'll settle for nothing but peak performance from his stereo components . . . a casual listener who'd like more insight into the challenging world of stereo reproduction . . . or a professional technician who needs precise standards for lab testing . . . the new MODEL SR12 will be the most important disc in your entire collection.



Like its predecessor Model 211, MODEL SR12 has been produced by Stereo Review Magazine (formerly HiFi/Stereo Review) as a labor of love — by music lovers . . . for music lovers who want immediate answers to questions about the performance of their stereo systems and how to get the best possible sound reproduction.

Now greatly expanded and updated with the most modern engineering techniques, MODEL SR12 is the most complete test record of its kind — containing the widest range of checks ever included on one test disc. An ear-opener for every serious listener!

AND, for the ultimate in stereo testing, 7 critical TEST EQUIPMENT checks . . .

You'll make these important stereo checks BY EAR... (no test instruments of any kind required)

Frequency response—a direct warble-tone check of nineteen sections of the frequency spectrum, from 20 to 20,840 Hz, which will pinpoint any frequency response defects in your system.

Separation—an ingenious test which indicates whether you have adequate separation for good stereo.

Cartridge tracking—the most sophisticated tests ever devised for checking the performance of your cartridge, stylus and tone arm.

Channel balance—two broad-band, random-noise signals which permit you to eliminate any imbalances originating in cartridge, amplifier, speakers or room acoustics.

Hum and rumble—foolproof tests that help you evaluate the actual audible levels of rumble and hum in your system.

Flutter—a sensitive "musical" test to check whether your turntable's flutter is low, moderate, or high.

- Cartridge and Speaker Phasing
- Anti-Skating Adjustment
- "Gun Shot Test" for Stereo Spread
- Multi-purpose Musician's "A"
- Equal-tempered Chromatic Octave
- Guitar-tuning Tones.

Don't waste another minute on less-than-perfect stereo—Order Your Model SR12 Stereo Test Record NOW!

Consider the hundreds—even thousands—you've spent on your set-up and you'll agree \$5.98 is a small price to pay for the most valuable performance tool ever made. So to be sure your order is promptly filled from the supply available, mail the coupon at right with your remittance . . . today!

Attention professionals: Stereo Review's new Model SR12 Stereo Test Record is also designed to be used as a highly efficient design and measurement tool. In the following tests, recorded levels, frequencies, etc. have been controlled to laboratory tolerances—affording accurate numerical evaluation when used with oscilloscope, chart recorder, output meter, intermodulation-distortion meter and flutter meter.

- 1,000-Hz square waves to test transient and high-frequency response of phono pickups.
- 500 to 20,000 Hz frequency-response sweep.
- Sine-wave tone-bursts to test transient response of pickup.
- Intermodulation test using simultaneous 400-Hz and 4,000-Hz signals.
- Intermodulation sweep to show distortion caused by excessive resonances in tone arm and cartridge.
- 1,000-Hz reference tones to determine groove velocity.
- 3,000-Hz tone for flutter and speed tests.

Sample waveforms—illustrating both accurate and faulty responses are provided in the Instruction Manual for comparison with the patterns appearing on your own oscilloscope screen.

FREE Instruction Manual Includes Detailed Instructions, Charts, Tables and Diagrams.

Nothing is left to chance . . . or misinterpretation. Every segment of every band is fully, clearly, graphically explained. You'll know exactly what responses to listen for in each test. Which 'sounds and patterns indicate accurate performance . . . which ones spell trouble . . . as well as the cause of trouble and precise corrective measures to follow and help you pinpoint, analyze and cure your stereo headaches!

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Please send _____ test records at \$5.98 each, **postpaid**.

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TAPE HORIZONS

By CRAIG STARK



LAST-MINUTE NOTICE

"WE'RE giving a concert tonight at 8:00 in the high-school auditorium. I know it's late to call, but could you possibly tape it for us?" That's the breathless question you're likely to get on a Sunday afternoon from the leader of a local musical group when word gets around that you like to record and have the equipment. There's no time now to experiment with different microphone placements or recording levels, for the final rehearsal is already over. And unless you're incredibly lucky, you won't have mike cables hung from the ceiling, as in professional concert halls. Instead, you've got just a couple of hours before the audience starts to arrive to get your equipment together for a quick "flying by the seat of your pants" set-up.

This has happened to me so often I'm used to it. But if you're at all new to this hectic though rewarding aspect of the recording art, it's a bit unnerving, for people are depending on you and you know that conditions are such that you cannot achieve optimum results. While you've got your caller on the phone, however, don't forget to ask two questions. First, ask the running time of the performances both before and after the intermission. This will tell you how many of what length tapes to bring and disclose where you may have to make a very fast reel change. To any musician's time estimate I recommend you add at least fifteen per cent to allow for audience applause, tuning and delay between movements, and other interruptions. Your second question is whether there are any soloists involved, and, if so, where they will be located. If possible, you should always try to arrange things to give soloists closer, more "intimate," microphone placement.

What do you throw into the car to take with you besides obvious things like recorder, tape, mikes, cables, and possibly microphone stands? The first thing *not* to forget is ear-sealing headphones that can be driven by your recorder; trying to record a concert just by watching your VU meters is an invitation to disaster. You must be able to hear what your microphones are actually picking up, not just what the audience hears, if you intend to get proper sound balance. Unless you *know* your mike cables are long enough, bring an extra pair—along with any adapters, cable transformers, and the like your recorder may require. And always carry a long a.c. extension cord plus a three-way "cube tap." If you don't, you're bound to find that there's no a.c. outlet within the reach of your recorder's power cord—or, if there is, it's already occupied by other a.c. plugs. An inexpensive stopwatch that can be stopped and started without resetting to zero is also desirable. Use it to time not the actual music, but rather the cumulative elapsed running time of the tape, so that you can calculate during the performance whether you'll have to make a reel change one movement earlier than planned. For the same reason, have an extra reel of tape with its leader threaded into a take-up reel ready to throw on the machine in an unexpected hurry. Finally, you'll probably need a roll of plastic electrical tape for setting up your microphones for good general coverage—and I'll discuss that next month.

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It does just about everything a studio does —
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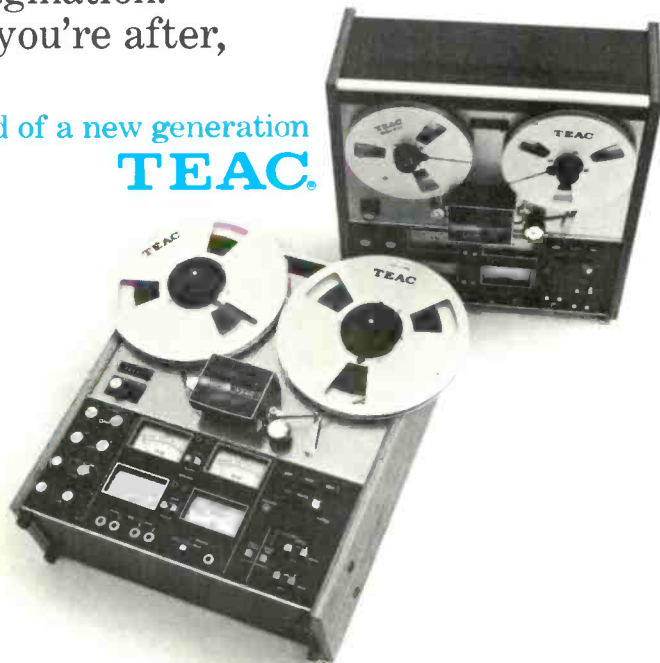
It's the creator — TEAC's amazing Model 3340 4-Channel Tape Deck, backed by TEAC's exclusive two-year Warranty of Confidence.*

The 3340 is a skillful blend of advanced electronics and precision mechanics that reflects professional sophistication: 10½" reels. Quick and smooth three-motor transport. Four studio-calibrated VU meters. Eight input controls for mic/line mixing. Dual bias. 7½ and 15 ips studio accurate speeds. And Simul-Sync.™

Simul-Sync is TEAC's unique electronic system that eliminates the time lag you get with conventional record-playback monitoring. Which means that each track you lay down will be in perfect sync with the next one, and the next, and the next. And it opens up a realm of creative sound limited only by the borders of imagination.

If creative involvement is what you're after, meet the creator — the TEAC 3340 4-Channel Simul-Sync Tape Deck. (Or the 7" reel, 3¾/7½ ips version, the 2340). When it comes to creative recording, they perform miracles.

The sound of a new generation
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*TEAC or one of its authorized service stations will make all necessary repairs to any TEAC TAPE DECK that results from defects in workmanship or material for two full years from the date of purchase free of charge to the original purchaser.

The TEAC 2340 and 3340 are priced at \$759.50 and \$849.50, respectively. For complete information, please write to TEAC, 7733 Telegraph Road, Montebello, California 90640.
In Canada: White Electronic Development Corp., Ltd., Toronto.
TEAC Corporation, 1-8-1 Nishi-shinjuku, Shinjuku-ku, Tokyo, Japan
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Hi-Fi, S.A. Alta Fidelidad, Hidalgo 1679, Guadalajara, Jal., Mexico

CIRCLE NO. 48 ON READER SERVICE CARD



Herewith, five helpful ideas for adding music without disturbing your decor.

PROBLEM: How do you add a stereo (or 4-channel) system to your living room without upsetting the appearance of the room or adding unwanted furniture?

ANSWER: Use Electro-Voice Custom Loudspeakers that mount almost anywhere. For instance, you can build them into a present bookcase, mount them in a wall (perhaps behind a semi-transparent drape), mount them in a closet door, even put speakers in the ceiling, or install them in existing furniture.

There are sizes and models of E-V Custom Loudspeakers to fit your available space, your budget, and your taste in sound. Write today for complete catalog information and a list of Electro-Voice dealers who'll help you put hi-fi in its place... in your home.



You have some questions about 4-channel? We have the answers.

EVX-44 Four-Channel Universal Decoder \$99.95 suggested retail



Q. With so many different matrix encodings (E-V Stereo-4™, SQ, QS, Dyna, and all the rest) how do I know which decoder to buy?

A. Simple. Choose the new EVX-44 Universal Decoder. It plays ALL matrixes accurately without switching, no matter how they are made.

Q. The EVX-44 has an extra Separation Enhancement circuit. Why?

A. To keep a soloist firmly in the front of the room by increasing center-front to back isolation to as much as 18 dB (at the cost of some back left-right separation). The enhancement is automatic and unobtrusive, acting only when the center soloist is performing. It can also be switched "on" continuously or "off" completely if preferred. The circuit works equally well with all encodings and even with 2-channel stereo records.

Q. What if so-called "discrete" records become popular? Won't I be wasting my money buying a matrix decoder now?

A. Not at all. Major record companies are firmly committed to matrix four channel. In addition E-V decoders enhance 2-channel sources, adding a feeling of ambience and dimension that is rivaled only by actual 4-channel material. Discrete demodulators can't do this. After all, 2-channel records, tapes, and FM won't disappear overnight, no matter what happens with 4-channel sound. Our decoders can even "enhance" the main channels of discrete 4-channel recordings. So your E-V decoder will be useful for years to come.

Q. Why does E-V offer two decoders?

A. Cost, mostly. The original EVX-4 is still a great bargain. It does an excellent job of decoding matrix records and is tops for enhancing 2-channel stereo. But the new EVX-44 does a more accurate job with all matrixes, and it has the separation enhancement circuit. It's quite a bit more complex, hence more expensive. E-V thinks you should have a choice.

Q. I don't want to buy 2 stereo systems to get 4-channel sound. What should I do?

A. Choose the EVR-4X4 4-channel AM/FM receiver. It has everything including the Universal Decoder circuit built right in. Simply hook up 4 loudspeakers (hopefully E-V!) and whatever tape or record players you prefer, and play.

**When it comes to 4-channel... there's no question about it.
Electro-Voice makes it happen.**

E-V 4-channel products are produced under U.S. Patent No. 3,632,886

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