ICD

MARCH 1973

HIGH FIDELITY®

MARCH 1973 75¢
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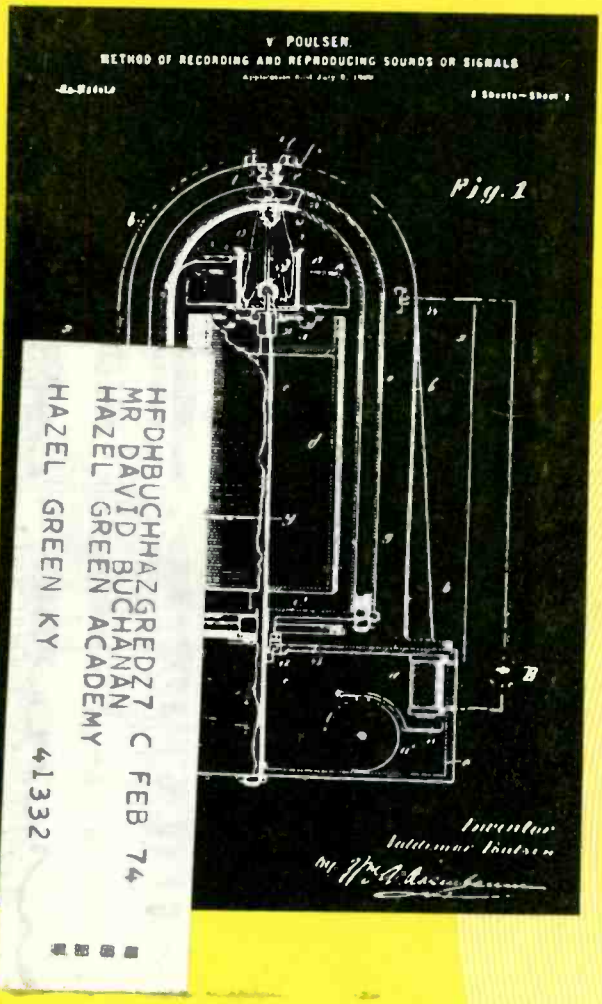
10 Cassette Tapes Compared

SPECIAL TAPE ISSUE



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From Wire to Tape- A Historical Saga

Would You Like a Copy of the First Tape Ever Recorded?

See page 4 for details

"THE BEST VALUE IN A QUADRAPHONIC RECEIVER."

—High Fidelity Magazine
January, 1973

Excerpts from the equipment report *High Fidelity*, based on test data and easurements obtained by CBS aboratories:

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"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. HF-3, 11-40 45th Road, Long Island City, N.Y. 11101.

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Studio-Standard

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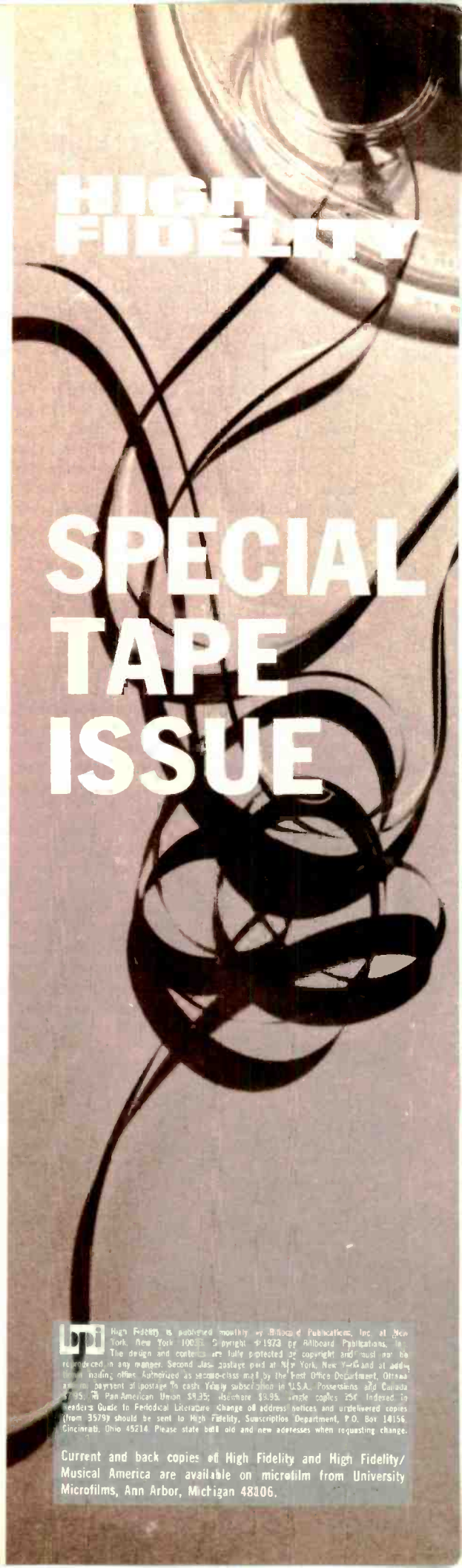
March 1973

VOL. 23 NO. 3



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The First Tape Recording And How to Get It

As Robert Angus states in his article beginning on page 42, the tape recorder found its way into German radio stations as early as 1938. Two tapes recorded the following year were actually released on the Urania label in the United States after the war: the opera *Hänsel und Gretel*, with Erna Berger as Gretel, and Couperin's Harpsichord Suite No. 24, performed by Eta Harich-Schneider. They were among the many tapes "liberated" by Ward Botsford, then managing director of Urania, from the Tri-German stations of Leipzig, Dresden, and Berlin in 1948–9.

"Urania had tons of recordings made in 1940 and 1941," Botsford told me recently, "and you should have seen the ones that got away, including a complete *Die Meistersinger* with Furtwängler in—no kidding—stereo!" Until recently the two Urania albums were probably the earliest tapes to become commercial recordings, but now BASF has released a disc of old German radio tapes, "*Opernabend der Erinnerung*" (05 21549-0), which includes a 1938 taping of Margarete Teschemacher and Maria Cebotari singing (in German) the Letter Duet from *The Marriage of Figaro*, with the Stuttgart State Opera Orchestra under Karl Böhm.

Yet even this was not the first musically important tape ever made. As Mr. Angus also points out, that historical honor goes to the tape recorded by BASF itself—in its employees' hall in Ludwigshafen, Germany—on November 19, 1936, of the touring London Philharmonic Orchestra under Sir Thomas Beecham. Their experimental tape of the third movement of Mozart's Symphony No. 39, in E flat, K. 543, made prior to a concert in the hall, thus became the first significant recording to use the revolutionary new medium. This symphony, you may recall, itself caused a revolution by introducing the clarinet into the symphony orchestra, and it is in the trio (as usual) of the taped movement that Mozart showed what the new instrument could do, during a duet between one clarinet playing in its high register and another playing in its lowest.

When HIGH FIDELITY recently inaugurated a search for the original tape, which miraculously managed to survive World War II, it turned up in an employee recreation area at BASF's Ludwigshafen headquarters. But time had done what the war's B-17s could not. The tape was beyond playing—even beyond repair. However, we discovered that several years ago BASF had sent a copy of the original to the Sir Thomas Beecham Society—when, coincidentally, Ward Botsford was the Society's head. In no time at all, we had a 15 ips dub, and quite a remarkable one at that, considering that the original was taped in 1936. We informed BASF that we had a copy and would give it to them—but would they please undertake to send copies to any of our interested readers. They were delighted to do so. We decided to put the four-minute movement onto a cassette, today's new and revolutionary (and ubiquitous) tape format. The copy we had was just fast enough to make it an E major Symphony, but BASF readily agreed to bring the tape down to the original performance speed (presumably the LPO played in tune).

If you would like a cassette copy of this historical memento, send one dollar ($1.00) for handling and postage with your name and address to Beecham Tape, c/o Mr. Murray Kremer, BASF, Crosby Drive, Bedford, Mass. 01730. You should shortly thereafter receive a copy of the first professional tape ever recorded. However, only a thousand of these tapes are being made; once they are all sent out, you'll just receive your money back instead.

Next month we will remain partly in the past, with **HOW TO PLAY ANTIQUE RECORDS ON YOUR STEREO SYSTEM**, replete with a strobe disc that will help you to set your three-speed record player for the nonstandard speeds (73, 75, 80 rpm) at which many older "78s" were actually cut. (We'll tell you which, too.) And you'll also find a startling bit of myth-breaking in **THE CLASSICAL UPSURGE**. For rock fans, West, Bruce & Laing and Loggins & Messina will be the subjects of **ROCK'S NEW SUPERGROUPS**.

Leonard Marcus

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letters

Robeson as Activist

I would like to call attention to the historic career of the great American artist Paul Robeson. The sacrifice of his career in concert, recording, and on the stage was a direct result of his appearances in the trenches of the Spanish Civil War, defiance of the House Un-American Activities Committee, support for Henry Wallace in the 1948 presidential campaign, and, above all, his militant fight for black civil rights. It has generally been forgotten, but the efforts to still his voice in Peekskill, New York in August and September 1949, brought about a confrontation between 20,000 admirers and local hoodlums supported by state police. As a personal participant I can testify that the story (which made front page headlines in the *New York Times*) is worth an article by itself. Surely, justice requires that Robeson's efforts against totalitarianism in the world and at home be documented while he is still alive and able to experience vindication.

Rolland S. Parker
New York, N.Y.

Toscanini Please

Why can't we have more releases of the Arturo Toscanini recordings of the 1940s and 1950s? Month after month I search the reviews and record stores and I see new releases by mediocre artists and orchestras but no Toscanini. He was the greatest conductor that the world has ever known and the greatest of his interpretations should be available.

David P. Becker
Atlanta, Ga.

Horenstein Society

This is to announce the formation of the Jascha Horenstein Society. Our purpose will be to make the extraordinary work of this conductor better known, and we intend to beg, pressure, and lobby the recording industry into finally doing justice to his remarkable genius.

Our primary hope is that the Maestro will be given the opportunity to record in the finest modern sound his many incredible interpretations, from Bach to Schoenberg and beyond.

We would be very grateful to hear from readers who can supply us with information and recordings (out of print, private, etc.).

David Walker
Jascha H
3202 SE Alder St.
Portland, Ore. 97214

Refund Merry-Go-Round

I recently attempted to obtain a stereo cassette deck that had been evaluated in HIGH FIDELITY. One firm submitted a lower-priced model and another firm sent two well-used, inoperative floor samples.

In trying to obtain a refund, I learned the difference between "merchandising" and "customer service." While it took only one week to obtain the merchandise, it took eleven weeks, the intervention of the North Carolina Attorney General, Consumers Union, the Washington, D.C. Better Business Bureau, the Bureau of Consumers Protection of the Federal Trade Commission, and the North Carolina Consumers Council to obtain the refund.

Ralph A. Greene
President
North Carolina Consumers Council
Henderson, N.D.

The Real Blues Guitarists

In the review of Roy Buchanan's album [December 1972], Mike Jahn sheds the traditional titles such as the world's best and goes to the real core of Buchanan's playing, a trait more record reviewers should try to acquire.

However, he errs in stating that B.B. King wrote the book on slow guitar blues. B.B. King, although a fair guitarist, has been commercialized to the point of completely overshadowing the real masters of the blues—slow, electric, or acoustic—Lightnin' Hopkins, J. B. Hutto, Magic Sam, Larry Johnson, Rev. Gary Davis, Elmore James, Leadbelly, T. B. Lenoir, and Spider John Koerner.

Marty Hurwitz
Brooklyn, N.Y.

Double-Stopped Oboe

In "The Best Records of the Year" [December 1971] Leonard Marcus says that Heinz Holliger might very well be the world's greatest oboe virtuoso and that he plays double-stops. Well, I play the oboe myself, and I know that it is impossible to play two notes at once. No matter how great this guy is I'm sure he couldn't do it.

Russell Walder
Deerfield, Ill.

Mr. Marcus replies: If Mr. Walder will take up his oboe, blow into it hard with a loose-lip embouchure, and finger as follows—keep the first finger of the left hand up; push down the next two fingers (A and G); in the right hand push down the second finger on F sharp and the pinky on low C—he will find himself playing double-stops. The Dorian Wind Quintet is currently touring with Lukas Foss's new Cave of the Winds *quintet (expected to be recorded for Vox) in which the composer calls for up to five notes to be played simultaneously by a single wind instrument. It can be done. For further instructions in this technique see* New Sounds for Woodwinds *by Bruno Bartolozzi (Oxford, 1967).*

The double-stopping Heinz Holliger.

Hearing the Static

People who don't own a set of Koss Electrostatic headphones will think that Michael Marcus was kidding ["Eight Experts Choose the Component I'd Most Like to Get for Christmas," December 1972]. He wasn't. Being a humble and impoverished law student I had to settle for the ESP-6 rather than the ESP-9; nevertheless, I soon discovered that one fifth of my records were so poorly recorded that I could no longer stand to listen to them.

Bob Egge
Albany, N.Y.

Esoteric Awards

I think your "international jury" ought to rename itself the Montreux Esoteric Records Jury [December 1972]. How they can consistently award first prizes to records that are about as well known (to reviewers as well as to the general public) as was Spiro Agnew in January 1968 is beyond me. This year they really outdid themselves by picking three nonentities over the clearest choice since the inception of the awards—the London *Tannhäuser*. At least Mr. Marcus had enough sense to try to prevent the Montreux jury from making a farce of the awards and itself.

James D. Walley
Concord, N.H.

Dynamic Dynamite

Am I alone in thinking too many recordings of classical orchestral music are made with excessive extremes of dynamics for domestic listening? They tend to make soft passages inaudible and loud ones deafening; surely modern technology could overcome this. After all, one's listening room is not a concert hall and never will be.

Steven Paradis
New York, N.Y.

Character Change

The article and review of the Furtwängler recordings of the Wagner *Ring* were informative and intelligent [December 1972]. Conrad L. Osborne continues to impress me as the best opera reviewer in the U.S. However the photograph accompanying the article incorrectly states that Furtwängler is congratulating Martha Mödl after her appearance as Brünnhilde. The photograph actually shows Furtwängler congratulating Mödl after her appearance as Kundry in *Parsifal*—I believe during the 1950–51 La Scala season.

Jay Kauffman
APO, New York, N.Y.

Wolff on Record

This past summer it was my pleasure to hear Beverly Wolff in concert. Here is a fine American singer who, as yet, has not been discovered by recording companies. What a shame if she

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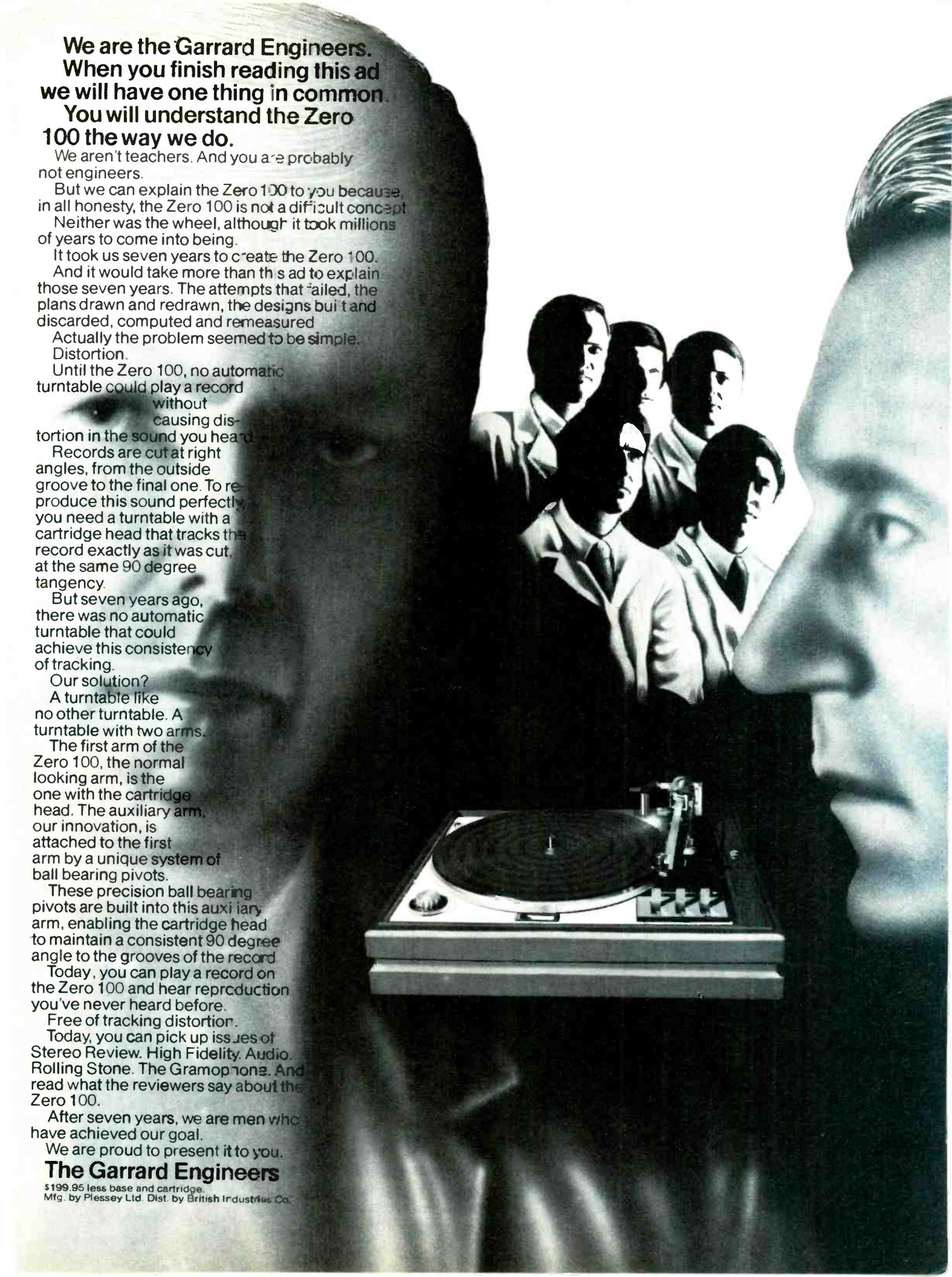

We are the Garrard Engineers. When you finish reading this ad we will have one thing in common. You will understand the Zero 100 the way we do.

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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.

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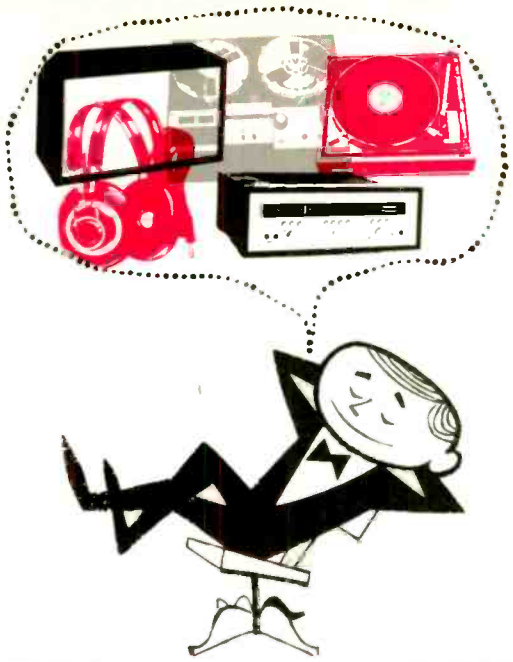

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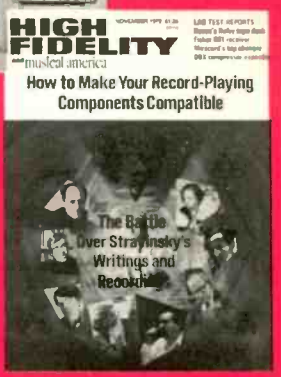

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First Recording Lege

Philip Hart erred in stating
lease of Dvořák's *Legends* is
[December 1972]. I have an L
ends on Supraphon (ALPV 31)
Czech Philharmonic Orchestra
Karel Sejna.

Jame
Cedar

Taking Sides

The designs and text of Patrick J. Smith
ticle, "Who Really Wrote Stravinsky's Pro
[November 1972] present me as being on o
side against the other in the controversy
Where biography is concerned there are no
sides, because there is no one reality—there are
only realities. Robert Craft is a stylistic master
of portraiture and musical insight. But Lillian
Libman's new memoir contains insight too, le-
gitimate and smart and contagiously warm. I'd
hate for Ms. Libman to think I was "against"
her. I am against no one except the critic who,
for its news value (so very far from art value),
swells a molehill into such a volcanic eruption
that old friends are forced to run in opposite
directions.

Ned Rorem
New York, N.Y.

Rozsa Society

Your July 1972 issue devoted to film music was most informative. Especially valuable were Elmer Bernstein's inside view and Ken Sutak's survey of the disc situation. (Though I do wish Mr. Bernstein had ranged farther in selecting his examples. *The Ten Commandments* was OK, but how many readers have even heard of *Men in War*?) Likewise, the October "Letters" section was a worthy representation of the widespread interest in serious film scores.

But what do you have against Miklos Rozsa? It was bad enough to misspell his name (July 1972, p. 55). What is really unforgivable, however, is your failure to announce the formation of the Miklos Rozsa Society. Under the circumstances, your printing of a mention of the Max Steiner Music Society [October 1972] is difficult to understand. That organization has been established for seven years now, and has received a good deal of publicity in many national magazines. Meanwhile, we have struggled through our first year in relative obscurity. We have ninety-three members in six countries now, but I am certain that many readers of HIGH FIDELITY would want to increase that number if they knew how.

For the record, the MRS is devoted to the study of the works of Rozsa and of other composers who have been neglected because of their cinematic work. Tape recordings and a

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critical journal are offered to members. Those interested should write to me at the address below.

John Fitzpatrick
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Bloomington, Ind. 47401

Terminology

Alfred Frankenstein cannot really be blamed for not knowing that Barbara Kolb is in error in her interpretation of the term *trobar clus*, which she uses as the title of a composition [November 1972]. *Trobar* means poetry, not troubadour, and *clus* means closed, not rondo. Such "closed poetry" is deliberately obscure and difficult to interpret. That is its only universal characteristic. It may be written in many forms.

Thus Miss Kolb's reference may be "very learned," but it's not quite learned enough.

Paul Brians
Pullman, Wash.

Author's Query

A biography of British electronics pioneer Alan Dower Blumlein (1903-42) is in preparation. Anyone who had personal contact with him (however slight), especially during his boyhood and student days, or would like to give an assessment of Mr. Blumlein's position in the history of technology, is invited to write to the undersigned.

F. P. Thomson
39 Church Road
Watford WD1 3PY, Herts.
England

Four-Channel Addendum

In our February 1973 two-page chart, "Those New 4-Channel Receivers Compared," Rotel was inadvertently omitted. The company's Model RX-15A has a "strappable" 2/4-channel amp (two channels at 20 watts or four at 10 watts, both rms into 8 ohms), a built-in SQ decoder, one four-channel high-level input, one magnetic phono input, one set of four-channel headphone outputs, one set of four speaker terminals, and costs $240.

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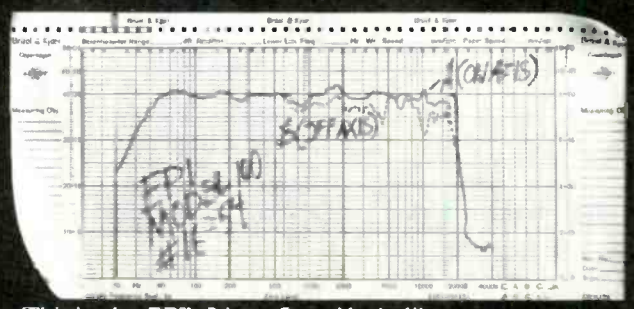

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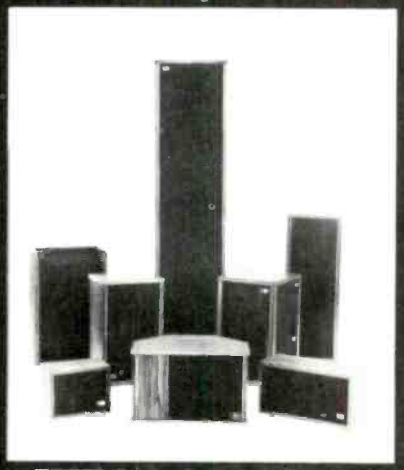

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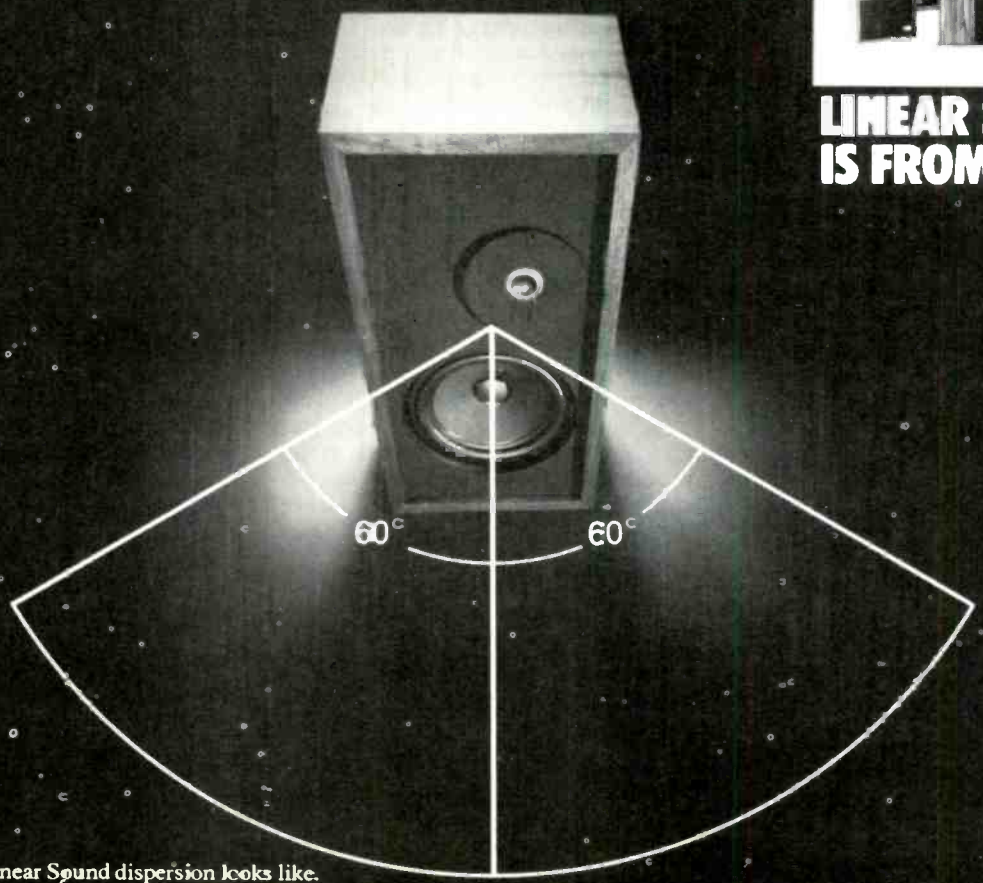

This is what EPI's Linear Sound dispersion looks like.

behind the scenes

Daniel Barenboim—taping Bruckner in Chicago.

The Peripatetic CSO

CHICAGO

The Chicago Symphony is the great freelancer among the major American orchestras. It made its first records in 1916 for Columbia. (They were, in fact, the first symphonic records produced in this country.) For the next thirty-two years it worked alternately for Columbia and Victor. Since 1950 it has made new records not only for both these labels but for Mercury, Angel, London, and now, Deutsche Grammophon.

The CSO has become equally peripatetic in the matter of recording sites. Until 1966 nearly all of its work was done in Orchestra Hall. More recently the orchestra has recorded in Medinah Temple, an even larger Chicago auditorium more notable for its sound than its looks, and two out-of-town locations, the Krannert Center at the University of Illinois in Urbana and the Sofiensaal in Vienna.

On November first the orchestra was back in Medinah with guest conductor Daniel Barenboim. The DGG sessions were an outgrowth of his recent change of affiliation which brings him to that label predominately. A major Barenboim release, in which he will appear as a pianist in a Brahms collection, is in the offing. Two others are available as of this writing: the *Four Serious Songs*, with Dietrich Fischer-Dieskau and the Brahms *German Requiem* in which he conducts the London Philharmonic Orchestra and uses the vocal forces of his Edinburgh Festival performance. A substantial orchestral record for Barenboim in his conductorial role was considered an essential of the design, and the choice went to Bruckner's *Romantic* Symphony (No. 4) with the Chicago Symphony, an ensemble that everyone agreed was unsurpassed for the weight and richness of tone required in a score by this composer.

Now a regular visitor to Chicago, Barenboim had recorded with the orchestra in Medinah for Angel. He was back on familiar ground. DGG technicians moved in well in advance of the sessions, and long before the first musician arrived everything was organized and totally under control as if they too were thoroughly familiar with the orchestra and hall. Gunther Breest, who produced the record, had Klaus Scheibe on his right as *Tonmeister*. Scheibe had recorded the symphony before (with Eugen Jochum and the Berlin Philharmonic) and observed that he knew where the problems were and how one solved them. It quickly became clear he was right.

Since DGG now does a substantial amount of recording in the United States, it uses American equipment to a considerable extent and keeps its gear on this side of the ocean. The basic rig for this session consisted of Altec Lansing speakers, new four-channel Ampex tape machines with the latest Dolby noise suppression gear for all four channels, and a board, through which all sounds passed, built by "our sister company" Philips.

The master tape was mixed on the basis of four channels. (A two-channel mixdown will come later.) DGG chose to use about a dozen microphones in all, only half the number others have employed in the hall. Four of this group provided an over-all view for the rear channels. The rest offered a fairly close perspective of the stage and individual sections of the orchestra.

Things began in a traditional manner with Barenboim trying a series of short passages of different character to provide a check on microphone placement. A few minor adjustments were made, after which the first movement and scherzo were recorded straight through and the orchestra took a long break while the conductor and crew listened to the results.

There was [illegible]ason to be pleased. The engineers [illegible]d to have found the way to brin[illegible] sense of large hall while[illegible]esonance of a intimacy and pre[illegible] orches- tra. The Chicago b[illegible] be the best in the business splendent, even the seating for the sake of nels were causing the [illegible] re- mentary problems.

Barenboim went back corded a few inserts to fluffs in the original takes, a through the slow movement the first session.

Work resumed in the even few inserts for the slow mo Barenboim then decided to re coda of the final movement wh brass was still fresh, and that was tape. It was then simply a matte doing the finale straight through making a few repairs. The job was do in a total of five hours, clock time— whole hour less than expected.

Unfortunately there is no economy in this speed. It would take three three-hour sessions to record the same work in Europe, but this is still cheaper than two sessions with the Chicago Symphony. As Breest saw it, there would be no point in coming to Chicago "except for the quality." That quality was heard in the music and was sensed in the positive, happy mood of the session which was remarkably free of tensions that frequently go with recording.

Breest was delighted with the results. "We shall be back," he said. "I am sure we shall be back." ROBERT C. MARSH

NEW YORK

Vanguard Tapes Rossini's La Pietra del paragone

Up until DGG's *Carmen* project, Vanguard was one of the few labels making opera recordings in the United States. Several seasons back, it brought Newell Jenkins and his Clarion Concerts ensemble into its Manhattan studio and recorded Simon Mayr's *Medea in Corinto*. Last October, it took on another opera project, again with Jenkins and company: Rossini's *La Pietra del paragone* ("The Touchstone"). Curiously, this early comedy was first performed in 1812, scarcely a year after Mayr's *Medea*.

At the company's 23rd Street headquarters in The Masonic Temple, the orchestral forces warming up in the recording area were considerably larger than what you'd find in any opera house doing Rossini (for the public performance, the following week at Tully Hall, it was cut down to conventional propor-

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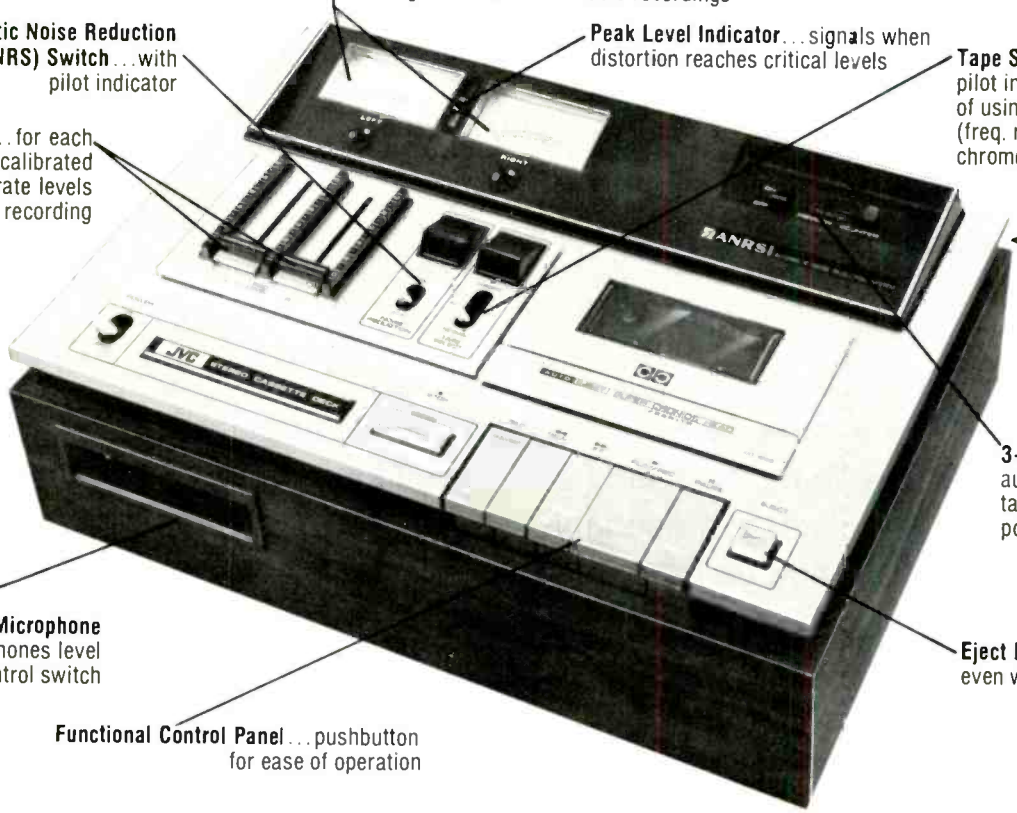

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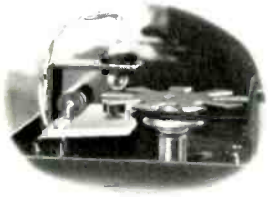

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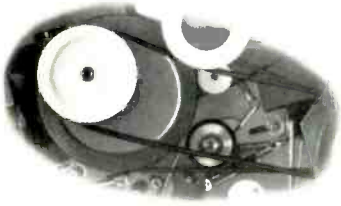

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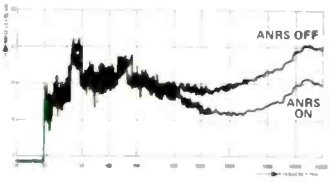

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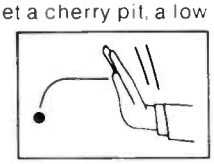

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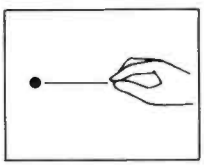

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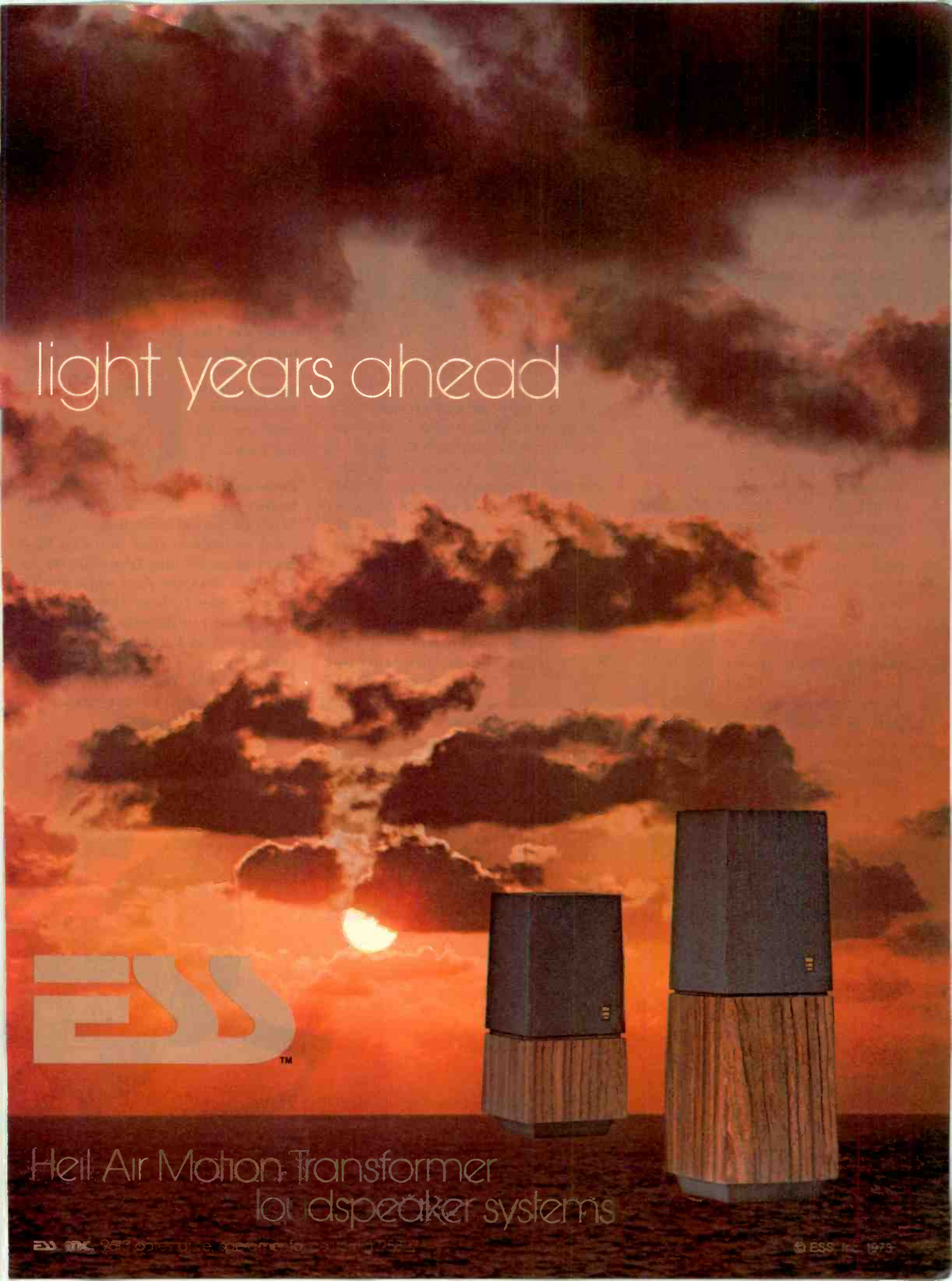
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tions). In addition, I learned that the project involved eight prominent soloists and a good-sized chorus, and that the recording sessions had been going on for seven days. All this must have been costing somebody an arm and a leg—but whom?

That was the first question I asked Newell Jenkins while he relaxed, during a break, with a bottle of soda. Financing the project, he told me, was the Mary Flagler Cary Charitable Trust. Mrs. Cary, a patron of Clarion during her lifetime, left a sizable trust fund upon her death in the late Sixties. The trustees decided to allocate part of that fund to Clarion for such special projects as recordings.

"The trustees once asked me what it would cost to record in Europe," Jenkins admits. "I told them we could probably record three times as much music there as we do here. Nonetheless, the terms of the estate are such that the music is to be spent for the benefit of both Clarion and American musicians. If I were to record the opera in Europe with the same singers, it wouldn't be the Clarion Music Society doing it, since I'd be using ensembles like the English Chamber Orchestra: so this would not redound in any way to Clarion's fame. Nor would it work to take the orchestra and everybody over there: In addition to the union costs you'd have the costs of transatlantic flight and of accommodations."

The Clarion Music Society has a musicological function as well as a performing one: and Jenkins told me how that function was challenged in the Society's attempt to obtain an authentic score of *Pietra.* He had originally obtained a copy of the score published by Bärenreiter. This edition is derived from a Gunther Rennert production: and its introduction by Rennert admits that, in order to make the work more theatrically viable (by Rennert's lights), he had changed the order of pieces, changed the plot, and inserted a German text. When the opera had a certain success in Germany, the Italians decided they also wanted to stage it. But the story line was so drastically altered that it was no longer possible to simply reinstate the original Romanelli libretto. They were therefore forced to translate Rennert's translation.

That edition was of course useless for any musicologically conscientious organization like Clarion. Another version was the score used in a 1959 La Scala performance. Jenkins contacted a friend at Riccordi, Madame Pestalozza (the sister of Claudio Abbado), asking her for a copy of the La Scala material as well as a microfilm of the autograph score. What he received, though, was merely the La Scala version. Things were obviously missing from it, but it was not until Jen-

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CIRCLE 22 ON READER-SERVICE CARD

← CIRCLE 30 ON READER-SERVICE CARD

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

Smart. 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.

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 records.

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

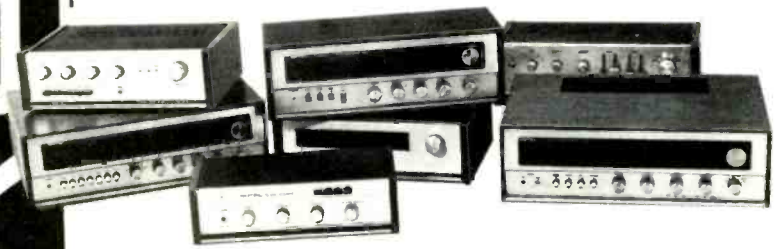
CIRCLE 10 ON READER-SERVICE CARD

ROTEL

THE ALTERNATIVE

RX-800

ROTEL's alternative: 40/40 watts RMS @ 8 ohms, FET front end with 1.7uV 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.



THE EVERYTHING LINE FROM ROTEL

ROTEL of America, Inc., 2642 Central Ave., Yonkers, N.Y. 10710

CIRCLE 47 ON READER-SERVICE CARD

kins obtained the autograph score did he realize the extent to which the La Scala version was bowdlerized. His arrangement with the Cary Trust and Vanguard Records had been for a two-disc recording. In light of the extensiveness of the new material a third disc was added to the project and additional funds had to be raised.

Following the break, Jenkins led his forces through a quartet. This afforded me my first glimpse of the Barcelona-born tenor José Carreras, whose work at City Opera last autumn had led some observers to hail him as the company's answer to Pavarotti. His singing here was lovely indeed, but Carreras was far from satisfied. At one point he paused to use nose drops, at another he reached for a box of gummy confections. Sharing his candy was mezzo Beverly Wolff. I asked the City Opera veteran what she thought of her latest role. "Well, since it's another obscure opera, it fits pretty well into my career," she quipped. "They're going to put on my tombstone: 'She was a singer of obscure works.' Would you believe this is the first Rossini I've ever sung? And doing it this way is like doing it in front of the whole world." She shrugged philosophically. "But that's all right—I'm over forty!"

Also in the quartet were John Reardon, singing the baritone hero, and basso buffo Andrew Foldi as Macrobio, a bribe-taking critic. At one point in the number, the orchestra halted while the singers launched into one of those a capella soufflés. To make certain the singers ended in the same key in which they had begun, a clarinetist had been positioned behind them, playing softly enough to evade detection by the microphone.

After the quartet had been recorded to everybody's satisfaction, Seymour Solomon, Vanguard's president, filled me in on some technical aspects. He recalled how Vanguard had introduced the first discrete quadraphonic tapes, wherein the technicians tried to reproduce the acoustics of the concert hall, with the orchestra up front and with ambience sounds being picked up from the rear. With recent efforts—including *Pietra*—Vanguard is working on a very different principle, a "surround stereo" that places the listener in the middle of the scene.

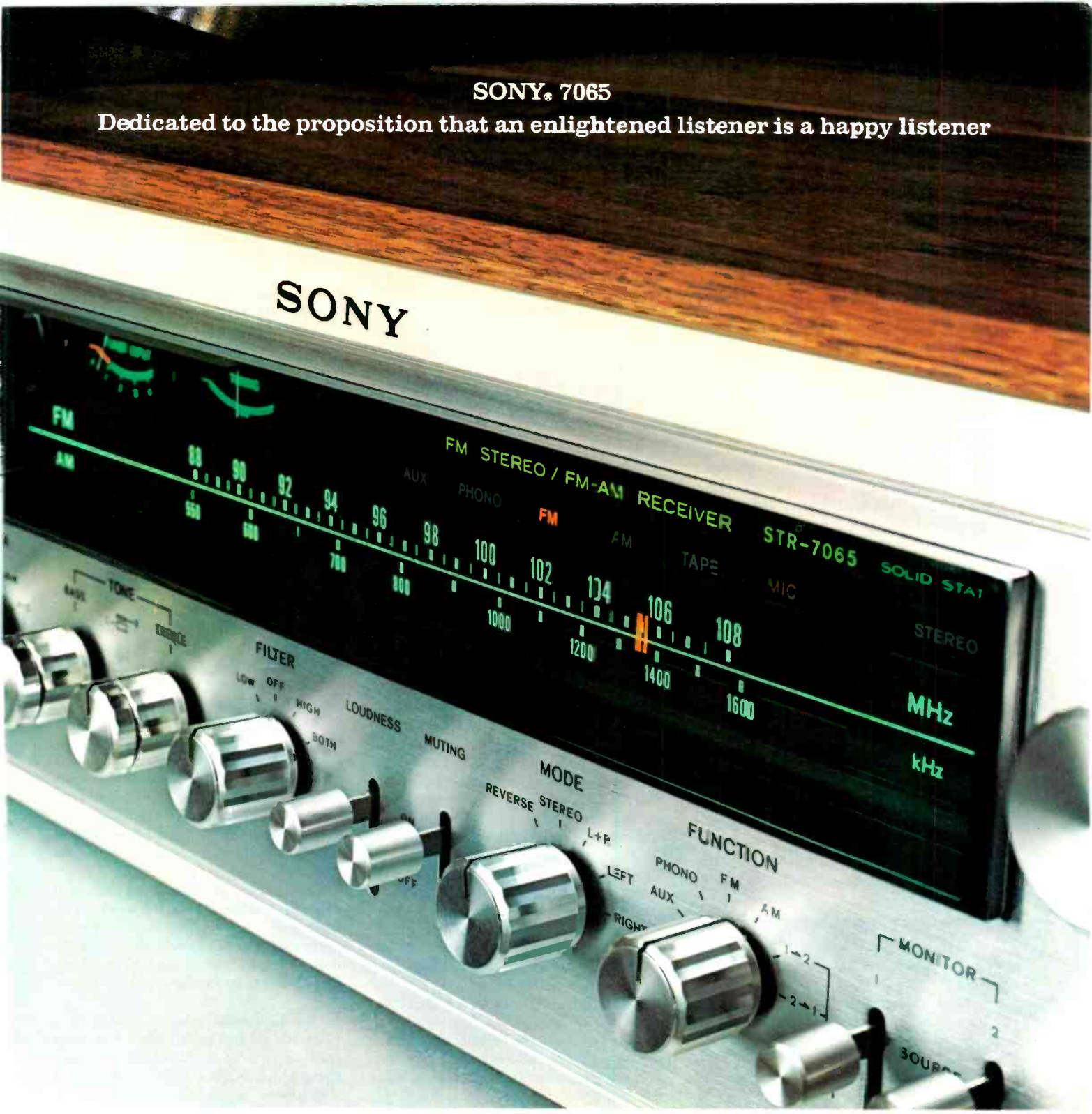
"We've arranged the strings in a half circle around the auditorium," Mr. Solomon said, "while the woodwinds and the brasses are spread about the middle. The front speakers will present the stage on which singers, chorus, and harpsichord perform. It's a step forward, though maybe a very debatable step. Anyway, they'll have something to talk about in high-fidelity circles for the next few years."

JACK HIEMENZ

CIRCLE 51 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 2μV 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.

Hollywood—Sign of the Times

LATE LAST YEAR, Dory Previn's musical, *Mary C. Brown and the Hollywood Sign* opened in Los Angeles and promptly closed.

As one would expect of Mrs. Previn, the show's premise was a little morbid. It's about a frustrated actress who commits suicide by jumping off the H of the four-story-high sign HOLLYWOOD that stretches, as Mrs. Previn aptly put it in one of her lyrics, across the hills like a big smile, as if the city were always saying "cheese."

An L.A. TV commentator said that the show followed the example of its heroine and committed suicide. A lot of people thought it was all rather symbolic, for the Hollywood sign is in danger of following the example of the show and collapsing. And that seems to represent what's happening to Hollywood itself.

People in the motion picture and music industries say that Hollywood isn't dying, it's dead. They may be overstating the case, but there's some truth to it.

Hollywood itself is no longer the movie capital of the world. But the Los Angeles area as a whole still is; and now it's also the record capital of the world. What's happened of course is that most of the big studios have moved to outlying communities, all the way from Burbank in the San Fernando Valley to Beverly Hills, where a lot of the talent agencies maintain their offices.

Dory Previn—Hollywood's collapse in music.

Meantime, there has been a recession in the movie industry, which in turn affects the music industry. And television hasn't been doing too well either. If you wonder why, just look at how much trash there is on the tube, though some of the dramatic shows seem to have improved of late. It is rumored that the big networks have been drawing a lot of profit from their record divisions and the record divisions in turn have been living off their music publishing subsidiaries.

"*Easy Rider* was one of the most unprofitable movies Hollywood ever made," a director friend of mine said recently. When I expressed incredulity, he said, "Its box office success was huge, but it launched a bunch of imitations that have damn near killed the film business." In short, he said, such pictures turned the public off going to movies.

With all this, the life style of the old Hollywood has disappeared. Movie stars are no longer exalted and beautiful gods, running around in Dusenbergs and living it up at scandalous secret parties in remote and guarded mansions. "The girl in the mink coat, slacks, and smoked glasses going to the supermarket, that was the symbol of the old Hollywood," said Hugo Friedhofer recently. "The symbol still prevails in some places, but it's largely gone now."

Friedhofer, at seventy-one, is the elder statesman of motion picture music—a title he loathes since he bitterly resents getting old. He is also the owner of one of the most caustic and penetrating wits in the city.

Friedhofer came to Hollywood from his native San Francisco in 1929, two years after the advent of sound in movies and a year, incidentally, after Margaret Entwhistle jumped off Hollywood's H as an act of revenge against the city that had ignored her. She was, of course, the model for Mrs. Previn's musical.

He remembers, with wry amusement, the days of the great moguls with minuscule minds. When he was scoring a film about the French revolution, the production head of the studio told him, "This story is laid in Paris, so there should be lots of French horns in the score." For his own amusement, Friedhofer used lots of French horns, and then, at the end, when the escaping hero and heroine are crossing the Channel to England, added a final private joke by scoring the passage with an English horn solo.

"Yes, the city's changed," Friedhofer said. "Now, when you go into the Brown Derby, the only people you see are tourists. You can always tell the tourists. They wear Bermuda shorts, the wrong socks, and the kind of shoes that lace up. And they gawk, expecting to see a movie star. They've got a long wait these days. They all look as if they come from Pocatello, Idaho, not that I have anything against Pocatello, Idaho. They grow potatoes there, I think."

Century City, on the western edge of Beverly Hills, is a huge complex of hotels, office buildings, and supermarkets, and also the theater where Mrs. Previn's musical briefly appeared. "It used to be Tom Mix's ranch," Friedhofer said. "When it's lit up now, it looks like a bunch of ice cube trays set on end. It helps on hot nights.

"Out where UCLA is, it was nothing. Come to think of it, architecturally it's still nothing. But they have a fine music library. Beyond that, there was only alfalfa and barley, things of interest only to horses and cows." Today, of course, there is an uninterrupted urban sprawl all the way from Hollywood to Santa Monica, a good ten-mile drive.

Movies today are made in a rush, and so are their scores. "I had ten weeks to do the music for *One-Eyed Jacks*," Friedhofer said. "Now you're lucky to get ten days. As they say around here, 'They don't want it good, they want it Thursday.'

"But Hollywood was never so much a place as a state of mind, and I was never really a part of it. Most people were, though, if only for a little while. Once I was having lunch with André Previn, and I asked him, 'When you first hit this town, did you go Hollywood?' He said, 'Did I ever. I wore suede socks.'"

Previn, who was a music director at MGM when he was only 18, has left Hollywood. Now forty-three, he is the conductor of the London Symphony, and professional colleagues who only a year or two ago were skeptical of his conducting now say he is becoming one of the best.

Meanwhile, his ex-wife has written *Mary C. Brown and the Hollywood Sign* and the city fathers are talking about tearing the sign down—before it falls down.

GENE LEES

CIRCLE 56 ON READER-SERVICE CARD →

The Toshibas are coming!

The high fidelity equipment you see here is available for the first time in this country.

It's made by Toshiba.

And it ranks with the best in the world.

To many in the audio business, that will come as no surprise. Toshiba is the world's most experienced maker of sophisticated high fidelity equipment.

Today, besides making a complete line of our own equipment, we're one of the world's largest suppliers of what goes into other people's

And now we're making everything from our 4-channel receivers to our new condenser cartridge available in the U.S.

The Toshibas are coming.

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In Touch with Tomorrow

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(b) SB-404 4Ch. 60W (RMS) Amplifier
(c) PT-490 Auto Reverse Dolby* Cassette Deck
(d) SR-80 Deluxe Turntable
(e) C-401S Electret Condenser Cartridge
(f) SA-304 4Ch. 60W (RMS) Receiver
(g) PT-415 DNL Cassette Deck
(h) SA-500 2Ch. 70W (RMS) Receiver
(i) SA-400 2Ch. 30W (RMS) Receiver
(j) PT-470 Dolby* Cassette Deck

*Trademark of Dolby Lab., Inc.

Do you know what 4-channel sound looks like?

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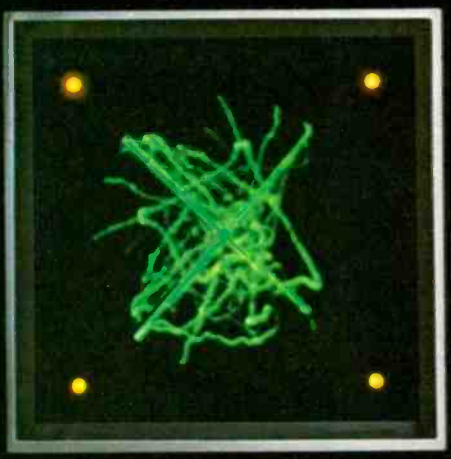
The SH-3433 lets you see the strength and phase relationship of all 4 channels, at one time. You can look at two channels, if you're listening to stereo. Or one. Turn the Wave Form selector to the one channel you want to see. The screen will show it.

The audio scope has controls for position, balance, focus and brightness. A gain control to



change the size of the wave form. Plus a Scope Mode switch for either matrix or discrete sound.

The back panel has jacks for most accessories. Stereo or 4-channel. Including two for an FM tuner. So you can monitor FM stereo wave forms and detect possible FM multipath problems. And if you're using 2 stereo amplifiers to get 4-channel sound, you can see if the front signals and back signals are in phase. With our special Rear Phase switch.

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With the diaphragm (bottom) removed, the acoustic lens formed by magnet's pole pieces is clearly visible at center of driver.

A Whole 'Nuther Loudspeaker?

Oskar Heil

ESS (manufacturer of the Transtatic I, reviewed in our June 1972 issue) recently invited us to its plant in Sacramento, Calif. to hear something startlingly new. "A radical new approach to loudspeaker design" is a phrase we've heard more often than we care to remember, and often it has heralded some of high fidelity's biggest disappointments; so we had no idea what to expect.

ESS's "breakthrough" turned out to be a structure a little smaller than a bread box containing an accordion-pleated diaphragm, surrounded by massive magnets and pole pieces, acting as a midrange-tweeter in a system that also included a conventional cone woofer. Naturally, it was demonstrated for us; and, frankly, we *were* startled by what we heard—and pleasantly so. But we'd rather forego specific comments until we've been able to listen in more familiar rooms and with a wider variety of program material than an afternoon's visit would allow.

Vic Comerchero and Phil Coelho (president and vice president respectively of ESS) emphasized that the unit we heard represented only one possible application of the driver principle, in which the convoluted conductor path (the counterpart of the coil in a conventional loudspeaker) is built right into the diaphragm, and they introduced Oskar Heil, the inventor of the new driver, who proved to be a fascinating gentleman. We were struck immediately by his way of talking about sound in general and loudspeakers in particular. His thoughts and vocabulary on the subject—which reflect his background in physics—bear little if any relationship to the clichés we have heard in the past. (We understand that in the Thirties he invented the field-effect transistor—the FET, as it's usually called—but was so far ahead of his time in doing so that the patent had expired before solid-state technology could apply the FET.)

In talking about the new speaker design, he is fond of explaining its basic principle through an allusion to the problem of throwing a cherry pit. Wind up and heave as hard as you can, and the pit still won't go very far. But press it firmly between your fingers and it will "squirt" out surprisingly far, though you will expend far less energy. The wasted energy of conventional throwing, Heil points out, is used in moving your arm—rather than the cherry pit. And conventional speakers, he says, suffer from a parallel sort of inefficiency in the way they project sound into the room.

Heil likens his "air-motion transformer" principle to that of "squirting" the pit because in both cases a higher force at a lower velocity (as in the fingers) is converted into a lower force at a higher velocity (in the pit). Similarly the diaphragm velocity in his sample speaker is only one-fifth that of the air it propels. Part of the key to this action appears to be in the magnet's pole pieces, which not only concentrate the magnetic force in the diaphragm's meandering conductor (a metallic "pathway" similar to that on a printed circuit board), but act as a sort of acoustic lens as well.

At first, Mr. Heil's approach seems somewhat disconcerting. His professorial manner, his physics-lab language, and his intuitive grasp of audio appear to have worked against him in the past. Furthermore, he quickly waxes intense on his favorite subjects (of which there appear to be many) once he finds an interested listener. Though he has talked to many industry insiders about his loudspeaker principle, no one seems to have penetrated his individual way of expressing himself and see that his ideas really do have merit—no one, that is, until he came in contact with the people of ESS.

Loudspeaker demonstrations, public or private, can be misleading. But unless we miss our guess Mr. Heil's speakers will cause considerable stir in high fidelity circles. First samples are expected to appear about the time you read this.

CIRCLE 159 ON READER-SERVICE CARD

Miami Show Scheduled March 23 to 25

Teresa Rogers and her husband, Robert, well-known independent high fidelity show producers, will stage their first Miami, Florida show on March 23 to 25. Mrs. Rogers, president of High Fidelity Music Shows, Inc., says that most of the fifty-five exhibit rooms at Miami's Sheraton Four Ambassadors had been reserved by mid-December. The doors will be open to the public from 5:00 to 10:00 p.m. on Friday, 11:00 a.m. to 10:00 p.m. on Saturday, and 1:00 to 8:00 p.m. on Sunday.

The Rogers recently completed their biennial Wash-

ington, D.C. show, which they have produced since 1954. They have also sponsored biennial shows in Philadelphia, Pennsylvania, and last year held one in Atlanta, Georgia.

Channel Master "Custom-Tailors" Antenna Systems

A new antenna, developed for TV sports fans who want long-distance reception of locally blacked-out events, may be an even bigger boon to FM listeners. With it, you can shoot past a strong local station in favor of a more distant station on a nearby frequency with a minimum of interference.

Channel Master's TV Sportenna package includes a so-called black box: custom-tailored frequency traps to filter out the TV channel one up or one down from the channel the viewer wants. The company says the same principle can easily be applied to trap out unwanted FM signals.

Their engineering department cites one limitation: The wanted and unwanted stations should be at least 600 kHz (that is, three FM channels) apart for optimum results. Take, for example, stations on 93.1 and 93.7 MHz. With this spread, Channel Master says, an unwanted signal on 93.1 will be attenuated 20 dB, while the desired signal on 93.7 will suffer only a 3-dB loss. A greater frequency spread will reduce the loss in the desired signal. If you want to receive the trapped station, the trap simply is bypassed.

These special antenna systems are available through Channel Master dealers. Because the traps must be assembled at the plant, you'll need to know the frequencies of the local and distant stations when you order.

Quadraphonics and the Cassette

Among the most-asked questions about quadraphonics these days is, "What about the cassette?" A number of companies are earnestly seeking to come up with a satisfactory answer to that question, and we know of at least three basic approaches that have been pursued. In Japan last fall we were shown demonstration samples of a unit with which JVC claims to have solved the problems. It appears to follow the mainstream on international thinking on the subject in subdividing the stereo tracks to achieve an eight-track cassette that will play quadraphonics in both directions. The long-standing objection to this approach is that it leaves too little margin for errors due to tape skewing in the mass duplication of recorded cassettes. JVC indicates, however, that it believes these problems too are solved. Perhaps the first units may reach the U.S. market this spring.

Dimensia Praecox

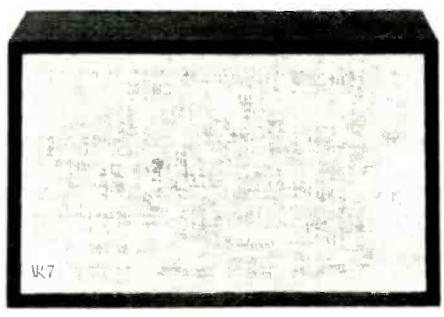
RCA, a leader in this country's push toward discrete four-channel sound (via both its massive introduction of Q-8 cartridges and its so-far proprietary position in Quadradiscs), is featuring new compacts with what it calls "Dimensia IV enhanced stereo capability." Advance information indicates that the stereo systems drive four loudspeakers via some sort of differentiation circuit (presumably comparable to Dynaquad) to achieve "Spatial Sound." RCA adds that Dimensia IV will play Quadradiscs as enhanced stereo. Where be discrete quadraphonics now?

equipment in the news

Sony's unique tuner

Perhaps the ultimate in pushbutton FM tuning is offered by Sony Corp. of America in its ST-5555, which has a button for each of the hundred FM channels. A quartz reference frequency oscillator and phase-locked-loop circuitry control tuning while a 200-bit memory array can be set to memorize the frequencies of selected stations and illuminate the corresponding buttons. Automatic-scanning functions also are included. A five-step digital indicator shows signal strength, and multipath can be monitored from oscilloscope outlets on the back panel. The ST-555 has two pairs of audio outputs (one with level control) and a headphone output with its own level control. The price is about $1,000.

CIRCLE 146 ON READER-SERVICE CARD



Smallest AR loudspeaker system

At 9¾ by 15¾ by 6¼ inches, the AR-7 is Acoustic Research's smallest loudspeaker. Within its walnut-finish wood enclosure are an 8-inch acoustic-suspension woofer and a 1½-inch wide-dispersion tweeter almost identical to that used in the AR-6. A selector switch permits the user to choose between two tweeter output levels. Recommended amplifier power is 15 watts; impedance is 8 ohms. It costs $60.

CIRCLE 147 ON READER-SERVICE CARD

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.

Recording voices calls for a different kind of tape. And recording sounds may call for yet another.

But no matter what you're recording, "Scotch" makes a tape for it that's unsurpassed.

Consider our 206 and 207 *High Output/Low Noise*, for example. These are our best reel-to-reel tapes. They provide an improvement of 3 db in signal-to-noise over standard tapes, resulting in an actual 50% increase in output. Or consider "Scotch" *High Energy*, our finest cassette tape. It's designed for your most important cassette recording needs.

Remember, "Scotch" tapes are the overwhelming choice of professional studios for master recording.

So no matter what kind of recording you're doing, and no matter whether it's reel-to-reel, 8-track cartridge or cassette, there's only one name you need to remember: "Scotch."

You're particular about sound. But no more than we.

3M COMPANY

"SCOTCH" IS A REGISTERED TRADEMARK OF 3M CO.

"Scotch" Brand Tapes.
Better tapes you just can't buy.

Versatile cartridge deck from Wollensa

3M/Wollensak's Model 8060 eight-track cartridge playe system has two features we have not seen before in th equipment: a built-in matrix decoder and a digital counter di elapsed time in minutes and seconds. The first allows the sy record and reproduce either stereo or matrixed quadraphon addition to playing commercial discrete four-channel (Q-8) tridges. The second makes it easy to time recordings. Signal noise ratio is rated at better than 48 dB, frequency response at 30 15 kHz. The suggested price is $199.95.

CIRCLE 148 ON READER-SERVICE CARD

Medium-power Heathkit receiver

Heath has filled a gap in the middle of its receiver line with the Heathkit AR-1214 stereo FM/AM receiver kit. The amplifier section is said to deliver 15 watts continuous power per channel into 8 ohms, while the FM section features a phase-lock multiplex demodulator. The preassembled FM tuning unit, the company says, provides a 2-microvolts sensitivity and a 2-dB capture ratio. The phono preamp has its own level controls. The unit comes with black vinyl top, walnut finished end panels, and chrome controls. Price is $169.95. The separate AJ-1214 tuner section and AA-1214 amplifier section each sell for $89.95 including cabinet.

CIRCLE 149 ON READER-SERVICE CARD

Design Acoustics offers "conventional" speaker

The D-6 loudspeaker from Design Acoustics is designed, the company says, to provide performance and dispersion comparable to its polyhedral D-12 but in a more conventional rectangular enclosure. The works include five 2½-inch tweeters, a 5-inch midrange firing through a relatively small opening for enhanced dispersion, and a rear-firing 10-inch woofer. Separate switches control high, low, and mid-frequency levels. Minimum recommended power input is 20 watts per channel; rated impedance is 8 ohms. Available grille colors for the walnut-veneer D-6 include azure, cocoa, crimson, gold, mandarin, white, and black. Price: $249.

CIRCLE 150 ON READER-SERVICE CARD

SQ decoders from Audionics

According to Audionics of Portland, Oregon (probably best known as importers of Radford and Sinclair audio products), the new 106 series of SQ decoders is built with precision parts to achieve the best available separation, distortion, and phase difference bandwidth—the latter referring to phase tracking as a function of frequency. In addition, logic circuitry can be added to these units later. The 106C (shown) is the component model at $99.95. The series also includes the 106B ($74.95, the electronics module of the 106C) and the 106A (the SQ circuitry, less additional hardware and power supply).

CIRCLE 151 ON READER-SERVICE CARD

CIRCLE 63 ON READER-SERVICE CARD →

Shakespeare. Dickens. Stevenson. Poe. Sony. Balzac.

Add another classic to your library from Sony/Superscope ...the bookshelf-size Sony Model TC-640B three-motor three-head stereo tape deck.

Get all of these outstanding Sony features in the most beautifully compact, beautifully priced ($399.95) three-motor tape deck on the market today.

Three Motors. One precisely controls tape speed and two provide extremely fast rewind and fast-forward modes for optimum tape handling ease.

Three Heads. Separate erase, record and play heads give better frequency response and also provide for tape/source monitoring, allowing you to check the quality of recording while in progress.

Built-In Sound-On-Sound and Echo. Switching networks on the front panel facilitate professional echo and multiple sound-on-sound recording without requiring external patch cords and mixer.

Mic/Line Mixing. Dual concentric level controls regulate the record levels of microphone and line inputs independently, also allowing simultaneous mix and record.

Two Large Illuminated VU Meters—calibrated to NAB standards.

Plus Lever Action Solenoid Controls and Locking Pause Control.

Also ask about the Sony TC-353D ($229.95), TC-580 ($499.95), TC-850 ($895.00) at your Sony/Superscope dealer. After all, when it comes to tape recorders Sony wrote the book.

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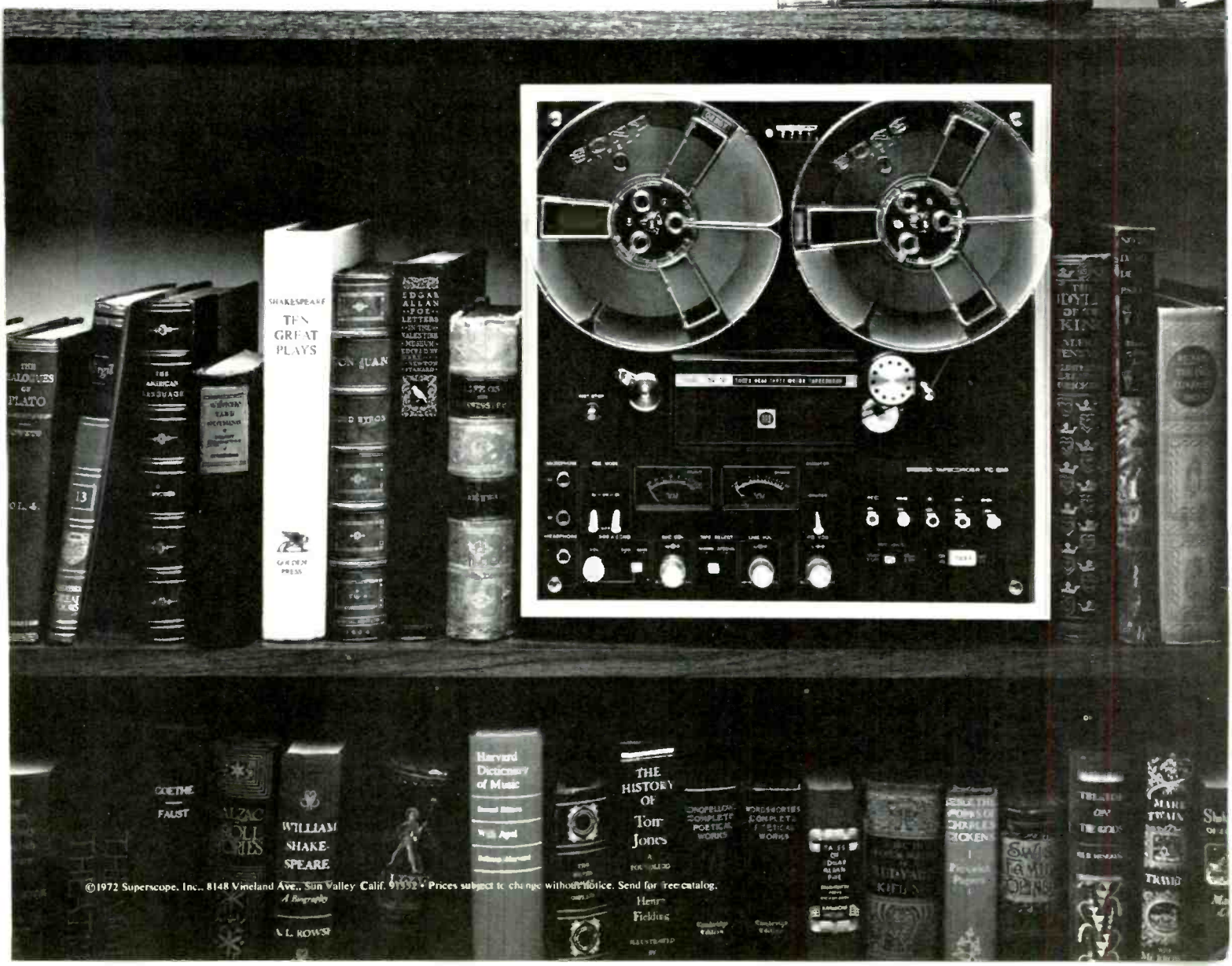
You never heard it so good.®



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too hot to handle

In your report on the Harman-Kardon CAD-5 cassette deck [April 1972] you say that if the cassette ends or becomes jammed "the motor turns off automatically but the drive mechanism does not automatically disengage." Does this mean that the pinch roller remains in contact with the capstan? And if so, is this not a shortcoming that deserves specific mention?—Joseph R. Kaelin, New Kensington, Pa.

In answer to both questions: Yes. And when we say that the drive system does not disengage we are talking about the capstan and the pinch roller. H-K's new HK-1000 cassette deck does disengage, though.

In talking about disc warpage you never mention the problem of boxed sets. I've been putting extra boards into the boxes to fill the empty spaces and support the discs firmly but not tightly, but still I have trouble with warping—particularly in the new, thinner discs (Angel, RCA, etc.). Any other suggestions?—B.D., Hanover, Pa.

If the discs really are packed firmly we don't see how they could warp during storage. Lay the box on a table and press down moderately on the middle. Now place a straightedge across its top. If the box sags away from the straightedge you don't have enough packing in the box.

My present stereo system includes two open-reel decks of 1963 vintage: an Akai M-7 and a Sony 262D. I'm planning to add Dolby noise reduction, but I don't know what considerations are important. Would I necessarily need one with separate record and playback Dolby circuits—maybe the Teac AN-180—to make use of the source monitor feature, for example?—Charles G. Aikman, APO, Seattle, Wash.

"Source" monitoring is not true monitoring: It simply takes the signal coming to the recorder from your stereo system and feeds it back to the system. A "real" monitor allows you to listen to the signal off the tape during recording and requires a separate playback head—which, if memory serves, neither of your decks has. A true monitor can help you evaluate the quality of the recording while you're making it; and to hear the taped signal properly in making a Dolby-encoded recording you would need extra Dolby circuits in the playback. But we don't see that they would serve any purpose in your system, so you could use a less expensive Dolby unit—the Teac AN-80, for example. But get your recorders serviced and their bias adjusted for the type of tape you plan to use before adding the Dolby units. Unless you do this the record/playback frequency response may not be optimum and may affect Dolby "tracking"—that is, the ability of the Dolby unit to restore exact levels and balances in reproducing your Dolby-encoded tapes.

Some stereo records seem to object violently to having their two channels paralleled in making a monaural tape. Part of the sound can become extremely weak and distorted in the mono copy. I have a small capacitor in one channel between my Shure M91E pickup and my Kenwood TK-140X receiver. Cutting this capacitor into the circuit helps some records and has little effect on others; but it doesn't get the job done right. What can I use to solve the problem?—Al Dow, Seattle, Wash.

The phase differences you're running afoul of are the same elements in stereo recordings that make simulated quadraphonics possible. It's an inherent property of stereo miking. The mikes can pick up some signals, at some frequencies, 180 degrees out of phase—meaning that left and right signals would tend to cancel each other when they're combined for mono recording. Your capacitor will shift phase by 90 degrees, restoring the canceled signal; but it also can cause cancellation of signals (or frequencies) that were recorded 90 degrees out of phase in the wrong direction. We know of no "right" solution to this Gordian knot, and of no device on the consumer market for untangling it even a little.

When your report on the Marantz 2270 appeared [April 1972] I noticed some discrepancies between the manufacturer's figures and yours. Marantz claims a capture ratio of 1.6 dB but you measured it at 2.0 dB for example. But now I notice something much more important that I—and, I guess, you—overlooked the first time around. Marantz claims far better FM quieting than you measured. Shouldn't you have pointed out in your report that the unit doesn't meet its specs?—William Austin, Pontiac, Mich.

The unit does meet its specs within normal tolerances and keeping in mind that spec sheets often must be written from engineering prototypes in order to be printed by the time the final production model is ready for marketing. As a matter of fact *our* literature from Marantz gives the capture ratio as 1.5 dB, so there are minor discrepancies even in the company's own data. The capture ratio (plus your other specifics, which we've deleted from your letter to save space) all represent what we would consider to be minor discrepancies, and in some instances—harmonic distortion in the amplifier for example—the test unit was notably better than the published specs. But all this assumes that Marantz's test procedures are identical to ours—an unwarranted assumption. That's the reason for the discrepancy in quieting. Marantz (and many engineers, particularly in communications electronics) defines quieting as the ratio between signal and noise as related to RF input; we (and most of the high fidelity industry) define it as the ratio of signal to total noise *plus distortion*. So our ultimate quieting figure of about 48 dB is not comparable to Marantz's 67 dB; nor is theirs really comparable to our S/N ratio measurement (79 dB) since Marantz's measurement was made at an input of only 50 microvolts while ours was made at 1,000 microvolts.

I recently bought a copy of Columbia's quadraphonic (SQ) release of "Abraxas" by Santana, although I already had the stereo version. The SQ release is very nice in quadraphonics, but it sounds very different from the original release when both are heard in stereo. The lead guitar in particular has been cut down quite a bit. This is understandable since the SQ version required remixing of the original studio material. But in acquiring SQ versions of other records that are now available in stereo can I expect similar changes and disappointments? Also, has there been any progress in the FCC squabble over quadraphonics?—Richard C. Carlton, Pittsburg, Calif.

The recording companies—at least the ones that are into it—are gaining more and more experience in quadraphonic mixing, and their techniques are bound to change. The question of whether the changes will also involve disappointments is moot; some readers find they prefer the matrixed version of some specific recordings to the original stereo when both are heard in stereo. Frankly, we think Columbia is right to offer both stereo and quadraphonic versions until more is learned about both stereo-quadraphonic compatibility and the potential of matrixed quadraphonics. As far as we can tell, the FCC isn't "squabbling" over quadraphonics; it's sitting tight and waiting to see how things develop. The real squabble may come in a year or two when the proposed discrete broadcast methods come up for serious consideration.

I received a mailing piece about a Columbia stereo receiver with "120 watts of continuous power." Though the ad says that the unit is "not available in stores," it looks very familiar. What relation, if any, does it have to Lafayette receivers?—M. C. Wallis, Stockton, Calif.

It doesn't look like any Lafayette product we're familiar with. But don't be led astray by a pretty faceplate. It's very common for a U.S. importer to have a unit custom built in a Far East factory, using existing parts and dies as far as possible to keep costs down. So while the appearance of the unit may be virtually the same as that of models available here through other channels and using the same parts and dies, it may be quite different internally.

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Take It Home and Live With It for 10 Days . . .

Discover the quality of an Onkyo receiver on your own . . . in your own home!

If it's not what we say it is, or more . . . return it to your participating dealer for a full refund! Ask for a demonstration of our outstanding Model TX-666, Solid State AM/FM Receiver ($429.95). Or the equally unique TX-555 Solid State AM/FM Receiver ($349.95). Compare them with others . . . in any price class. Check the performance and specifications. Decide. Then, when you purchase your Onkyo Receiver — take it home for 10 days and live with it! You'll quickly discover that Onkyo's superior performance goes well beyond sterile written specifications — that it delivers dynamically live sound quality through an ingenious blend of superb performance characteristics. To explore the full impact of Onkyo's "Artistry In Sound" audition any of our remarkable Scepter Speaker Systems ($149.95 to $495.95). Match any of them to your new Onkyo Receiver. This offer is limited, but our quality isn't!

ONKYO® *Artistry in Sound*

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CIRCLE 37 ON READER-SERVICE CARD

At Pilot, our best four-channel receiver is our best stereo receiver.

It takes a lot more than adding two plus two to produce an outstanding four-channel receiver.

Technological change must be anticipated, as well as the needs—present and future—of those who will use the equipment.

Unfortunately, not all companies recognize this.

Fortunately, Pilot does.

We knew from the beginning that many of you would not be able to make the switch to four-channel all at once. That's why the Pilot 366 four-channel receiver (30/30/30/30 Watts RMS into 8 ohms) incorporates an ingenious "double power" circuit that permits you right off to enjoy the full power of this receiver in stereo (60/60 Watts RMS into 8 ohms).

Not only does the 366 provide advanced SQ circuitry, but it can also reproduce any other matrix system currently in use. Plus it will extract hidden ambience information from conventional stereo material.

Naturally, the 366 is fully adaptable to any discrete system.

We didn't stop there, however, in considering the manifold uses of this receiver. An ultra-sensitive FM tuner section (1.8μV, IHF) has a special detector output to accommodate proposed FM four-channel transmissions.

Finally, we saw to it that setting up in four-channel would be a simple operation. The 366 provides a special balancing signal, we call it Pilotone®, which makes channel balancing a virtually foolproof procedure.

No matter how you use it, the very things that make the Pilot 366 our best four-channel receiver also make it our best stereo receiver.

And yours too.

For complete information and the name of your nearest Pilot dealer write: Pilot, 66 Field Point Road, Greenwich, Conn. 06830.

The Pilot 366 Four-Channel Receiver $499.90*

*Manufacturer's suggested retail price

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CIRCLE 41 ON READER-SERVICE CARD

Harman-Kardon's Latest Cassette Deck: The Best So Far

The Equipment: Harman-Kardon HK-1000, a stereo cassette deck with built-in Dolby B noise reduction, in a wood case. Dimensions: 15¾ by 10½ by 4 inches. Price: $299.95. Manufacturer: Harman-Kardon, Inc., 55 Ames Court, Plainview, N.Y. 11803.

Comment: This is the best cassette deck we have thus far tested. To readers still in awe of the fact that a $150 or $200 cassette deck can be called a high fidelity instrument at all, we may seem in that statement to put undue emphasis on fine shades of excellence; but we believe not. Fine though many other units are, the factors that make the $300 HK-1000 stand out are important ones in our opinion.

First, though, a ground plan of the unit's main features: At the far left is a turns counter; in front of it is the cassette well, whose near edge pops out for maintenance of heads, guides, and capstan. In front on this side is the usual array of pushkeys, whose action is unusually smooth and fuss-free. On the right are, from the back, a tilted meter panel that also includes recording and Dolby pilot lights, a Dolby test button and screwdriver Dolby adjustment controls, recording and playback level-control sliders for each channel, and four switches for mode (stereo/mono), tape (standard, low noise, chromium dioxide), "memory" (on/off), and Dolby action (on/off). To the right of these switches are the main on/off switch (a plastic button that turns red when the unit is on) and a stereo headphone jack. To the left of the switches are the microphone controls: phone jacks and level-control knobs for each channel. On the back panel are standard phono jacks for outputs and inputs (a choice of two input pairs of differing sensitivity is provided), a fuse holder, and a screwdriver control for setting speed accuracy. (This last is intended for servicing only; no instructions for its use are provided in the owner's manual.)

The memory feature, in case you've never encountered one, helps you return to a desired point on the tape. Once you have found the spot you want, you can turn on the memory feature and press the reset button on the counter, returning it to 000. Play (or fast wind) farther into the tape, then press the rewind button, and the tape will be returned to the 000 point. We found this feature useful in copying short selections from disc. Before dubbing each selection we reset the memory counter. If pickup mistracking of an ill-judged level setting marred the copy it was easy enough to return to the beginning of the selection and recopy.

The interlock system on the main presskeys is nicely thought out. You can, for example, go directly from play to a fast-wind mode without pressing "stop" in between. When you are in one fast-wind mode (forward or reverse) and press the other, the first button is released, stopping the wind; only a second press on the button for the new direction will cause tape motion to recommence. We know of no system that is faster or more foolproof in searching for a desired spot in the tape. (Some units can go directly from one fast-wind mode to the other with no stop in between, but this can cause an uneven wind in the tape and result in a jammed cassette.) And it goes almost without saying in a deck of this class that the drive system automatically disengages and shuts off at the end of the cassette in any mode.

Two features specifically are designed to promote unusual excellence in home recordings. The first is the excellent pair of peak-reading meters. Their action is sufficiently damped that they do not overshoot on peaks but hold those peaks long enough to be read and evaluated. Harman-Kardon's instructions for using the meters run counter to the usual make-the-needles-move-but-don't-go-into-the-red dictum. H-K recommends that for finest results peaks should not exceed −2 VU, and it cautions that on low-level passages the meters may not move at all. The unit's wide dynamic range makes it possible to record this way—whereas it would produce rela-

REPORT POLICY

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tively noisy tapes on the average unit. The second is the tape switching, which alters both recording characteristics and playback equalization for chromium dioxide tape. While those decks that use the same playback equalization for all tapes simplify the job of setting the controls (to say nothing of the pitfalls of swapping cassettes with owners of other decks) many engineers feel that H-K's present approach is the correct one for making the most of chromium dioxide's potential.

Having the Dolby adjustments on the top plate is a good idea. Harman-Kardon will sell a Dolby-level reference cassette ($5.95 plus 50¢ shipping and handling) to anyone who wants to adjust his own playback tracking. The recording adjustment is more important to the user, however, unless he plans to use only a tape for which the machine is set as delivered. The top-plate controls are far easier to adjust than those in out-of-the-way spots on some competing units, and the adjustment should be made with every new tape type for optimum results. In testing the unit we used it as delivered but only with tapes suggested by Harman-Kardon: TDK SD except where chromium dioxide is indicated in the data.

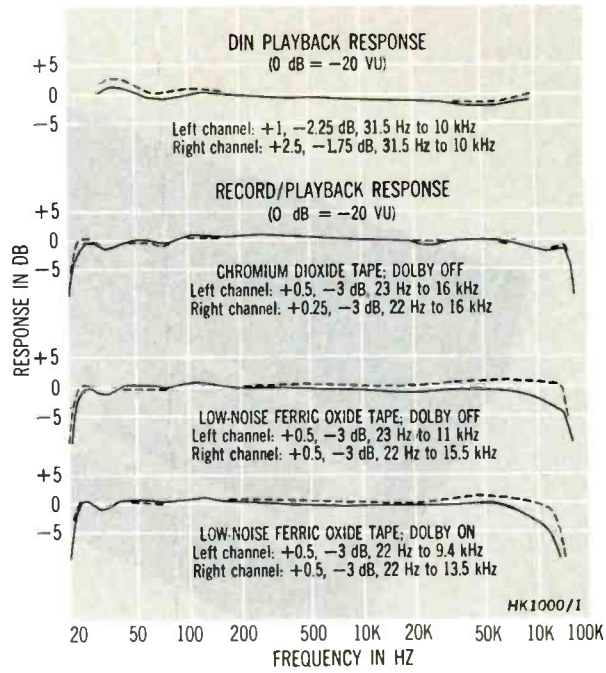
The only disappointing feature is the microphone preamp. Since it has its own level controls we had hoped that stereo mike/line mixing would be possible. Not so. Insertion of a plug into either mike jack cuts off the line input in that channel. One channel can be recorded live and the other from the line feed; or you can switch into the mono mode and mix a mike input from one channel with a line input from the other, but the controls then interact, making mixing problematic.

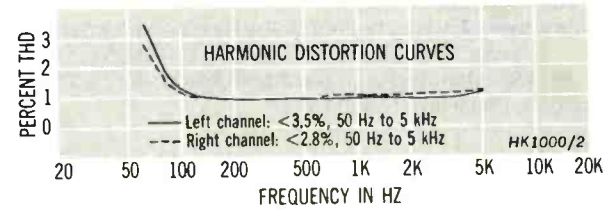
But the best is yet to come: the unit's performance. Harman-Kardon has stated that it aimed for exceptional linearity—both frequency linearity and phase linearity—in the HK-1000. Playback response is spectacularly linear, in fact the best we have seen. With chromium dioxide tape the record/playback curve is even more spectacular, since our tests go beyond the limits of the frequencies included on the DIN test cassette used for playback measurements. If the top end is *among* the best we have tested, the low frequencies are by a considerable margin *the* best yet. Many cassette decks remain more or less flat to about 60 Hz; the HK-1000 falls off only below 25 Hz. The right-channel measurements with ferric oxide are, if anything, even better by contrast to the results CBS Labs has had with comparable tapes in other decks. You'll note that our test sample did not respond quite as well in the left channel at high frequencies. But while this curve looks poor with respect to the others for this unit it actually is not bad by comparison to those for other units.

The other measurements range from par (for example, the approximately 40-dB crosstalk measurements and the speed accuracy figures—though the latter can be corrected thanks to the DC servomotor drive) to excellent (the 52 dB or better of signal-to-noise ratio without using the Dolby circuit, for instance).

We often have commented that with normal program material this or that cassette deck can make recordings that are indistinguishable from the originals. The real touchstone of the HK-1000's excellence is that even with exceptional program material it can do so. After struggling to detect even small differences in sound between the best commercial materials available to us (Ampex B-Dolby open reels at 7½ ips) and Dolby/chromium dioxide copies made on the HK-1000, we feel confident in saying that it will reproduce precisely anything you're likely to feed into it. A superb achievement.

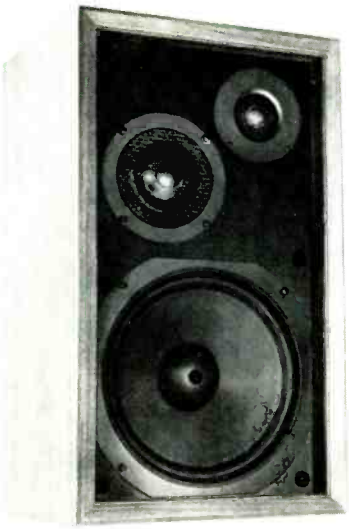
CIRCLE 143 ON READER-SERVICE CARD





HK-1000 Cassette Deck Additional Data

Speed accuracy	105 VAC: 0.06% slow 120 VAC: 0.23% slow 127 VAC: 0.23% slow
Wow and flutter	playback 0.08% record/playback: 0.14%
Rewind time, C-60 cassette	1 min. 12 sec.
Fast-forward time, same cassette	1 min. 18 sec.
S/N ratio (ref. DIN 0 VU, Dolby off)	
playback	L ch: 55 dB R ch: 56.5 dB
record/playback	L ch: 52 dB R ch: 55 dB
Erasure (400 Hz at normal level)	54.5 dB
Crosstalk (at 400 Hz)	
record left, playback right	40 dB
record right, playback left	38.5 dB
Sensitivity (for 0-VU recording level)	
high input	L ch: 250 mV R ch: 260 mV
low input	L ch: 32 mV R ch: 33 mV
mike input	L ch: 0.17 mV R ch: 0.17 mV
Metering: user adjustable for Dolby action	
IM distortion (record/play, −10 VU)	L ch: 15% R ch: 11%
Maximum output (preamp or line, 0 VU)	L ch: 0.70 V R ch: 0.72 V



A Good Medium-Priced Speaker from Onkyo

The Equipment: Onkyo Model 20, a "bookshelf" speaker system. Dimensions: 24½ by 13½ by 11½ inches. Price: $199.95. Manufacturer: Onkyo, Japan; U.S. distributor: Onkyo Sales Section, Mitsubishi International Corp., 25–19 43rd Ave., Long Island City, N.Y. 11101.

Comment: Like many Japanese companies, Onkyo makes both loudspeakers and stereo electronics; unlike most, it made its entry into this country with its loudspeaker line. The Model 20 is one of the less expensive of what Onkyo calls its Scepter Series. It is a three-way system of traditional bookshelf size containing a 12-inch woofer, 2-inch domed midrange driver, and 1-inch domed tweeter.

On the back panel are polarity-coded binding posts for the speaker leads and stepped controls for midrange and tweeter levels—each marked for "flat" response plus two positions of boost and two of attenuation: marked 4, 2, –2, and –4 respectively. These markings should not be taken as indicating so many dB of boost and attenuation. The extreme positions in the midrange, for example, provide no more than about 2 dB of boost or cut (over a frequency range extending from approximately 500 Hz to 5 kHz), while the treble control yields a maximum boost of about the same figure and a maximum attenuation of about 4 dB (both occurring in the range above 10 kHz). The differences between settings are therefore slight; we tended to prefer the flat settings.

The impedance curve is quite flat, never rising to above 16 ohms, even at bass resonance. The rating point (the low point in the curve above bass resonance) measured close to 5 ohms in the lab, the impedance at higher frequencies averaged a little less than 8 ohms. Because the curve remains at the 5-ohm rating for approximately one octave in the midbass (100 to 200 Hz) we would suggest you disregard Onkyo's 8-ohm rating and treat the Model 20s as 4-ohm units in multiple-speaker hookups.

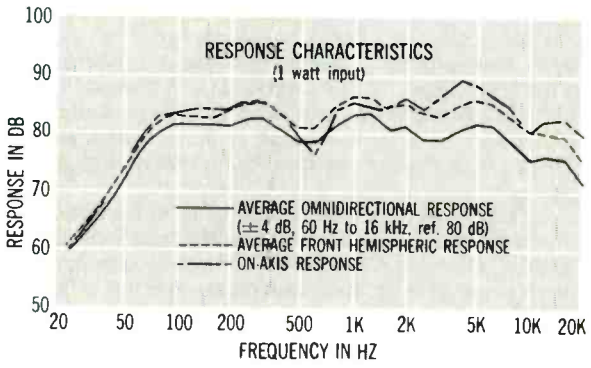
The efficiency of a 20 may be described as medium since it required 8 watts to produce the standard test level of 94 dB at 1 meter: less power than is required for many acoustic suspension systems, but more than is needed for most other conventional dynamic-driver designs. Onkyo recommends a minimum of 10 watts per channel. This should be adequate for rooms that are neither unusually large nor unusually dead acoustically. The unit handled 300-Hz tones to 100 watts and pulses to a bit above 200 watts before producing excessive distortion, so Onkyo's maximum-power rating of 50 watts strikes us as about right. Not that the speakers can't take more; but though they are unusually distortion-free at lower inputs, the distortion rises rapidly as they are driven close to capacity. In normal rooms, however, this capacity is high enough for the Model 20 to produce plenty of clean sound.

The bass is firm and clean with test tones down to about 70 Hz, beyond which it rolls off; signals remain audible at 35 Hz, though with some doubling. The over-all sound is on the bright side and quite "tight." That is, the music is not overstated either by a false resonance (actually a tendency toward ringing) or by an unnatural presence effect (actually an arbitrary boost in the midrange). In fact the Model 20s have a dip in the midrange (around 600 Hz) that may make music sound slightly withdrawn to you if you are used to "presency" loudspeakers or to those with a prominent, indistinct bass.

Some beaming could be detected as low as 2 kHz in listening to test tones, but it is not severe at any frequency and actually improved at the extreme top where one normally expects to find the most severe beaming. Test tones remain clearly audible all around the speaker to the limits of audibility.

If you are looking for a loudspeaker in the $200 range, listen carefully to the Model 20. At first it may seem a little colorless by contrast to competing models; but the sound is clean and eminently honest with any type of program material.

CIRCLE 141 ON READER-SERVICE CARD



Onkyo 20 Speaker Harmonic Distortion*

Output Level (dB)	Frequency 80 Hz % 2nd	80 Hz % 3rd	300 Hz % 2nd	300 Hz % 3rd
70	0.25	0.25	0.20	0.27
75	0.20	0.25	0.19	0.38
80	0.23	0.27	0.20	0.53
85	0.23	0.33	0.22	0.50
90	0.22	0.50	0.38	0.63
95	0.25	0.70	0.69	0.73
100			1.4	0.91
105			2.5	2.2

*Distortion data are taken on all tested speakers until distortion exceeds the 10 per cent level or the speaker produces the spurious output known as buzzing, whichever occurs first.

An Excellent Receiver from Kenwood

The Equipment: Kenwood KR-7200, a stereo FM/AM receiver in wood case. Dimensions: 17 1/7 by 5¾ by 14 inches. Price: $499.95. Manufacturer: Trio/Kenwood, Japan; U.S. distributor: Kenwood Electronics, Inc., 15777 S. Broadway, Gardena, Calif. 90248.

Comment: The KR-7200 is unusual in two ways: Its performance is above average, even for a fairly expensive receiver, and its controls offer some intriguing options. The latter is obvious when you glance at the front panel. Below a fairly conventional upper section (AM/FM signal-strength meter, FM center-tuning meter, tuning dial, tuning knob, and combined volume/balance control) are the main power switch and headphone jack (which is live at all times); a five-way, three-pair speaker selector (off, A, B, C, A + B, A + C); separate controls for bass, midrange, and treble; the mode switch (left mono, right mono, stereo, reverse stereo, left-plus-right mono); the selector switch (AM, FM, phono 1, phono 2, aux 1, aux 2); and a pushbutton switch panel (tape monitor A, tape monitor B, loudness, low filter, high filter) above another panel that contains a microphone mixing/level control, mike jack, tape B playback jack, and tape B recording jack. The last three are phone jacks; that for the mike feeds a mono signal to both channels; those for the tape connections are stereo jacks.

On the back panel are the usual phono-type jacks for inputs (phono 1, phono 2, aux 1, aux 2, tape A playback) and outputs (tape A recording, "pre-out"—about which more in a moment). The back panel also has a DIN input/output jack for tape A, screw terminals for antenna connections (300-ohm FM, 75-ohm FM, or long-wire AM), and spring-loaded clips for connecting up to three stereo pairs of speakers. There are also three convenience AC outlets, two of which are switched.

Kenwood claims to have added several newly devised circuit features to improve FM performance. CBS Labs tests appear to confirm their success. The mono quieting curve reaches the IHF rating point (30 dB) at only 1.5 microvolts, and quieting already has exceeded 40 dB by the time 2 microvolts—a common 30-dB rating among the better receivers—has been reached. As input is increased, quieting improves rapidly and is better than 50 dB from 7.5 microvolts to the limit of our tests at 50,000 microvolts (0.05 volt). Though this represents very good mono performance, the KR-7200's stereo performance is nearly as good—a truly striking achievement. At the stereo threshold (9.5 microvolts) the quieting is better than 40 dB. From about 20 microvolts on it is better than 45 dB; and mono and stereo quieting measurements above 1,000 microvolts were identical.

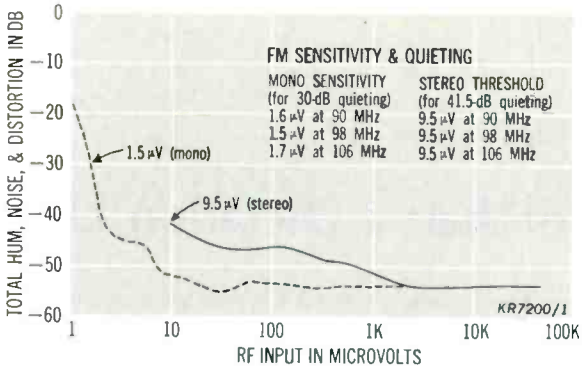
FM distortion is moderately low in mono; in stereo there is very little increase in distortion and even a decrease in one measurement. Stereo separation also is above par, as are most of the other FM measurements. The only fault of any sort that we could find with this section of the receiver is the rolloff in bass response. Here too mono performance is virtually indistinguishable from stereo, being down about 2 dB at 100 Hz and about 5 dB at 40 Hz. The lab has measured similar bass rolloff in a number of FM sections recently; while linear response is desirable, we should point out (again) that most program material makes little demands on bass below 60 Hz or so and that it is therefore easy to overemphasize the failing.

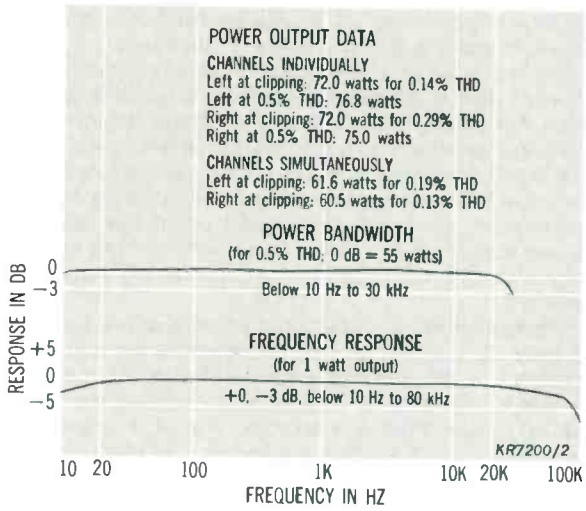
The amplifier section is conservatively rated at 55 watts per channel for 0.5% THD, 20 Hz to 20 kHz. At clipping the amplifier produces considerably more power at considerably lower distortion. The clipping measurements are, of course, made only at 1 kHz; at other frequencies—and at rated power—distortion stays well below the 0.5% rating, only approaching it at all in the 20-kHz measurements. At half power, distortion measurements were almost all lower than at full power, though both harmonic distortion and intermodulation creep upward as output is reduced below 1 watt. Since Kenwood (among others) has rated past equipment in terms of distortion at 1 kHz only, the lab has used the 1-kHz rating (70 watts) as the reference in measuring input sensitivity and S/N ratios, making these figures comparable to those in past reports.

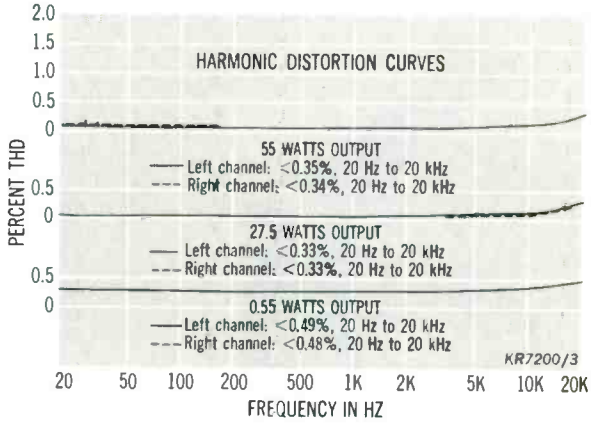
So much for basic performance. Outside of the midrange control (a welcome nicety, whether to touch up a deficiency in the program material or in your speakers, or to give special emphasis—or de-emphasis—to a soloist) the most striking control feature of the receiver is that for the mike. The switching is so arranged that mike signals automatically mix with the selected program source in feeding a tape recorder; when you are dubbing from tape A to tape B, the mike switches out of the tape A input and is inserted (along with the signals from tape A) at the input to tape B. If you want to add

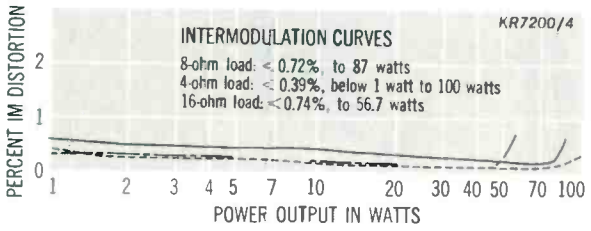
Magnavox and Controls

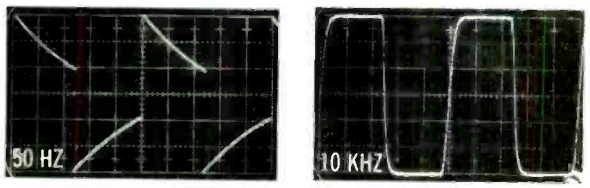
The January test report on the Magnavox 8896 receiver contained a statement to the effect that the unit has no main/remote speaker switching. It does, and the switch is visible at the upper left in the product illustration that accompanied the report.











Square-wave response

spoken commentary to music recorded as background to a slide show, say—or even if you like to sing along with instrumental discs or tapes and record the result—this system is beautifully thought out.

But we said we'd come back to the pre-out connection—standing for preamp output of course. It gives you access to the preamplifier's output, ahead of the tape monitor switching. Kenwood tells us it is intended to feed a quadraphonic decoder, though the manual is vague on this point. If a decoder is to be used from the pre-out connections, it presumably would have to drive a fully external quadraphonic amplification system; to use the KR-7200's amp to drive the front channels you would need to return from the decoder to the receiver, and the tape-monitor jacks would be the logical point for interconnection with the decoder. The pre-out connections might, therefore, be more logically used to feed a recording deck that has no monitor capability (an eight-track cartridge unit, cassette deck, or two-head open-reel deck). The deck's output would then be connected to the KR-7200 via one of the aux inputs. If you plan such a hookup, be sure the deck has plenty of gain in its record input. Even with the low-level input on a HK-1000 deck (measured for a sensitivity of about 32 mV, as reported elsewhere in this issue) we were unable to get full recording levels from the KR-7200's tuner section via the pre-out jacks.

While these ins and outs may be of more immediate interest to the recordist than they will be to the average user, they represent a kind of control flexibility—a potential for solving special interconnection problems—that is always welcome. When they're coupled to the above-average performance of the KR-7200's circuitry they're doubly welcome.

CIRCLE 142 ON READER-SERVICE CARD

Kenwood KR-7200 Additional Data

Tuner Section

Capture ratio		1.5 dB	
Alternate-channel selectivity		68 dB	
S/N ratio		69 dB	
THD	Mono	L ch	R ch
80 Hz	0.30%	0.50%	0.49%
1 kHz	0.23%	0.26%	0.25%
10 kHz	0.90%	0.90%	0.85%
IM distortion		0.66%	
19-kHz pilot		−62 dB	
38-kHz subcarrier		−58.5 dB	
Frequency response			
mono		+0.5, −3 dB, 68 Hz to 15 kHz	
L ch		+1, −3 dB, 62 Hz to 15 kHz	
R ch		+1.25, −3 dB, 60 Hz to 15 kHz	
Channel separation		>40 dB, 300 Hz to 1.2 kHz	
		>30 dB, 20 Hz to 8.2 kHz	

Amplifier Section

Damping factor	40	
Input characteristics (for 70 watts output)	Sensitivity	S/N ratio
phono 1 & 2	2.7 mV	65.5 dB
aux 1 & 2	165 mV	71.5 dB
tape monitor A	165 mV	75 dB
tape monitor B	170 mV	75 dB
mike	1.38 mV	63 dB
RIAA compensation	±1.5 dB, 20 Hz to 20 kHz	

Sony/Superscope TC-55:

More Than a Dictation Unit

The Equipment: Sony TC-55, a battery-operated portable mono cassette recorder with built-in condenser microphone. Dimensions: 1¼ by 5½ by 3¾ inches. Price: $139.95, including carrying strap, imitation leather case, earphone, "monitor" cable, battery, C-30 cassette; AK-3 AC power supply with rechargeable nicad battery, $29.95. Manufacturer: Sony Corp., Japan; U.S. distributor: Superscope, Inc., 8150 Vineland Ave., Sun Valley, Calif. 91352.

Comment: The phrase "condenser microphone" has never lost its audio glamor since the days when a single studio condenser microphone was used to capture an entire symphony orchestra—and capture it with a realism that had never been available on records before. Obviously that's not the sort of performance we can expect from a portable in the $100-to-$150 range, but with a proliferation of these units recently—all with the condenser microphone prominently mentioned in the ads—we decided to try one and see just what it *would* do.

The controls of the TC-55 reflect the primary intended purpose of the unit: dictation on the go. At the top are buttons for recording, fast forward and "cue," forward (play/record), stop, and rewind. The so-called cue feature helps you find a particular spot on the tape. If you start the cassette playing and then press the fast-forward button, the playback speed increases by about 50 per cent—not enough to render speech recordings unintelligible and therefore just about right for a quick review of the contents.

On the front of the unit are the recording/battery meter (which registers battery voltage automatically during playback) and the mike opening; a pause control and playback volume control; and a music/speech switch—actually the off and on positions, respectively, of a built-in limiter. At the left side are the cassette well and tape counter. On the back are connections for an outboard mike (miniature phone jack), remote stop/start switch (subminiature phone jack), "monitor" output cable (miniature phone jack), and 6-volt DC input (special male pin connector). A portion of the bottom slides off. Inside this section is the built-in power supply: technically, a Z battery, which consists of four AA penlight cells.

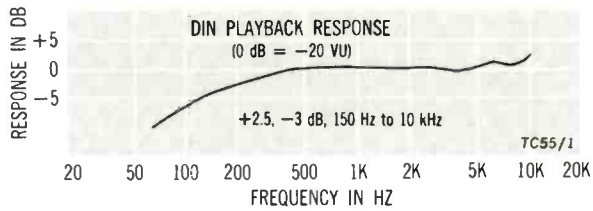
Why the provision for an extension mike and a remote on/off switch, since both facilities are built into the unit? For purely dictation purposes the add-ons simplify life a bit since you don't have to hold the whole unit in your hand while you record, and the on/off switch built into some microphones may fit the hand better than the pause control on the TC-55. But we used the unit without extensions and found it fine for dictation.

For music it's less satisfactory in some respects. The drive system is particularly good for a portable of this type. Its differentially-balanced flywheel design minimizes speed changes due to inertial effects, even when the TC-55 is moved vigorously during use; and, presumably due to the servo-controlled motor, speed accuracy figures are strikingly good: dead on at the nominal power supply voltage (6 VDC) and within 0.2 per cent of true when the lab raised or lowered the DC supply by one volt.

The built-in microphone is fairly sensitive and delivers a good, clear signal. But its response has a broad peak of about 10 dB, centered around 5 kHz. While this peak makes for intelligibility in speech it tends to make music sound rather bright and bodiless. Above the peak, response drops off rapidly, producing little useful signal above 9 kHz. Playback response is good in the midrange and top, but drops off below 100 Hz. The best solution for musical recordings, in our opinion, is to use the TC-55 with a better outboard mike and play back the cassettes through a component deck.

All told, it's a dandy little machine—the best of its type we have examined in detail. But that type still has not progressed to the point where really good musical recordings can be made on it. That is, they may provide you with a delightful memento of an evening's music listening (or music-making); but they can't be expected to give you anything like "professional quality" tapes.

CIRCLE 145 ON READER-SERVICE CARD



Sony TC-55 Additional Data

Speed accuracy	5 VDC: 0.2% slow 6 VDC: exact 7 VDC: 0.2% fast
Wow and flutter	0.5% (playback)
Rewind time (C-60 cassette)	41 sec.
Fast-forward time (same cassette)	1 min. 7 sec.
Meter action (ref. DIN 0 VU)	0.5 dB low

The best time to upgrade your component system is before you buy it.

If you're a typical reader of this magazine, you most likely have a sizeable investment in a component system. So our advice about upgrading might come a little late.

What you might have overlooked, however, is the fact that your records are the costliest and most fragile component of all. As well as the only one you will continue to invest in.

And since your turntable is the only component that handles these valuable records, advice about upgrading your turntable is better late than never.

Any compromise here will be costly. And permanent. Because there is just no way to improve a damaged record.

If the stylus can't respond accurately and sensitively to the rapidly changing contours of the groove walls, especially the hazardous peaks and valleys of the high frequencies, there's trouble. Any curve the stylus can't negotiate, it may lop off. And with those little bits of vinyl go the high notes and part of your investment.

If the record doesn't rotate at precisely the correct speed, musical pitch will be distorted. No amplifier tone controls can correct this distortion.

If the motor isn't quiet and free of vibration, an annoying rumble will accompany the music. You can get rid of rumble by using the bass control, but only at the expense of the bass you want to hear.

Experienced component owners know all this. Which is why so many of them, especially record reviewers and other music experts, won't play their records on anything but a Dual. From the first play on.

Now, if you'd like to know what several independent test labs say about Dual, we'll send you complete reprints of their reports. Plus a reprint of an article from a leading music magazine telling you what to look for in record playing equipment. Whether you're upgrading or not.

Better yet, just visit your franchised United Audio dealer and ask for a demonstration.

You'll find Dual automatic turntables priced from $109.50 to $199.50. That may be more than you spent on your present turntable, or more than you were intending to spend on your next one.

But think of it this way. It will be a long, long time before you'll need to upgrade your Dual.

Dual

United Audio Products, Inc., 120 So. Columbus Ave., Mt. Vernon, N.Y. 10553

Exclusive U.S. Distribution Agency for Dual

CIRCLE 19 ON READER-SERVICE CARD


Valdemar Poulsen

75 Years of Magnetic Recording

ACCORDING TO POPULAR LEGEND, the Allies were startled to hear from the crumbling Third Reich radio broadcasts by men who could not have been in the studio of origin at the time. Yet the excellent sound quality of these broadcasts precluded their being made from transcription recordings. With the capture of Radio Luxembourg in September 1944 the secret was uncovered: magnetic tape recording, an unheard-of development. Thus the legend.

Yet consider that one American manufacturer was investigating domestic sources of recording tape in the very month that tape recording supposedly was "discovered" several thousand miles away; that Sir Thomas Beecham had recorded on magnetic tape as early as 1936; that magnetic recording played a part in the espionage plans of Germany before the United States entered World War I; that a factory in Springfield, Massachusetts was turning out magnetic recorders in 1912; and that the Danish inventor of magnetic recording first patented his creation in Copenhagen seventy-five years ago.

These are but a few of the facts to emerge from a study of an invention and a man about whom very little is known. The man is Valdemar Poulsen, a pioneer telephone engineer who became known as "the Danish Edison." The invention was the Telegraphone, a device that stored sounds on steel cylinders or bands or on spools of piano wire by the means of magnetization. The Telegraphone was the direct ancestor of the Blattnerphone of the late 1920s (a magnetic recorder using bands of steel), the wire recorders and early tape equipment of the 1930s and 1940s, and the wire recorders of World War II.

Valdemar Poulsen was born in Copenhagen in 1869. His father was a judge who early recognized his son's aptitude for mathematics and interest in the theories of electricity. In due course, young Poulsen enrolled at the University of Copenhagen, where he studied electrical engineering. By the time he graduated in 1894, he had already begun work on a device that he felt could improve the efficiency of telephone lines. At that time, one telephone cable could handle only one conversation at a time. Already there were delays in service while subscribers waited their turn. Businesses seeking to use Alexander Graham Bell's invention found that delays and poor service cut down on their efficiency.

Poulsen's answer to the problem was a machine that could record a message or conversation at one speed, then, at a higher speed, feed a second machine, recording at the same high speed. A listener at this end could slow down his machine to normal speed in order to decipher the message. During the transmission, the message would be an unintelligible jumble, Poulsen reasoned, making it impossible for unauthorized persons to intercept it; and by speeding the transmission time, it also would increase the capacity of the phone lines. Working with another young engineer, Peder Oluf Pedersen, Poulsen is believed to have produced a working model of his Telegraphone as early as 1894. But the machine was imperfect, and it wasn't until 1898 that he had a model ready for the patent office. In December of that year, Poulsen received his first patent on it.

Despite his prominence in the field of electrical engineering—Poulsen is credited with creating an arc oscillator for telephone systems, improving telephone coils, and working on the world's first automatic switchboard—very little is known about Poulsen the man. Even the date of his death in 1942 is obscure, though it generally is taken to be August 6. Poulsen, then sixty-eight, had been working with the Danish underground during the German occupation on a number of undisclosed projects. For its own reasons, the underground delayed releasing

by Robert Angus

1898—Valdemar Poulsen invents it.
1908—Springfield, Mass., of all places, manufactures it.
1912—Herman Rosenthal's murder publicizes it.
1932—Charles Dexter Rood faces charges of treason over it.
1936—Sir Thomas Beecham first records on it.
And today—millions are enjoying it as the modern tape recorder.

the news of his death. It was more than a month later, for example, that the *New York Times* carried a short item noting his passing. And although he could truly be said to be the father of the tape recorder, that item never mentioned the Telegraphone.

Poulsen's was not the only engineering mind that early turned to the possibility of magnetic recording. In 1888 an American engineer, Oberlin Smith of Cincinnati, had written a magazine article in which he ruminated about how it might be done. Iron particles might be embedded in a cotton or silk thread, he said, and the particles magnetized in a pattern that could be reproduced later as sound. This symbiosis—the concept of the magnetic element as separate from and carried by the mechanical support—was particularly important: but it was not until the late 1920s that fruitful practical work was done along these lines, and Poulsen appears to have been unaware of Smith's article. By contrast, most early magnetic recording schemes, like Poulsen's, presupposed a homogeneous medium—a steel cylinder, disc, wire, or band that provided both the magnetizable medium and the mechanical strength needed for winding past the recording and reproducing elements.

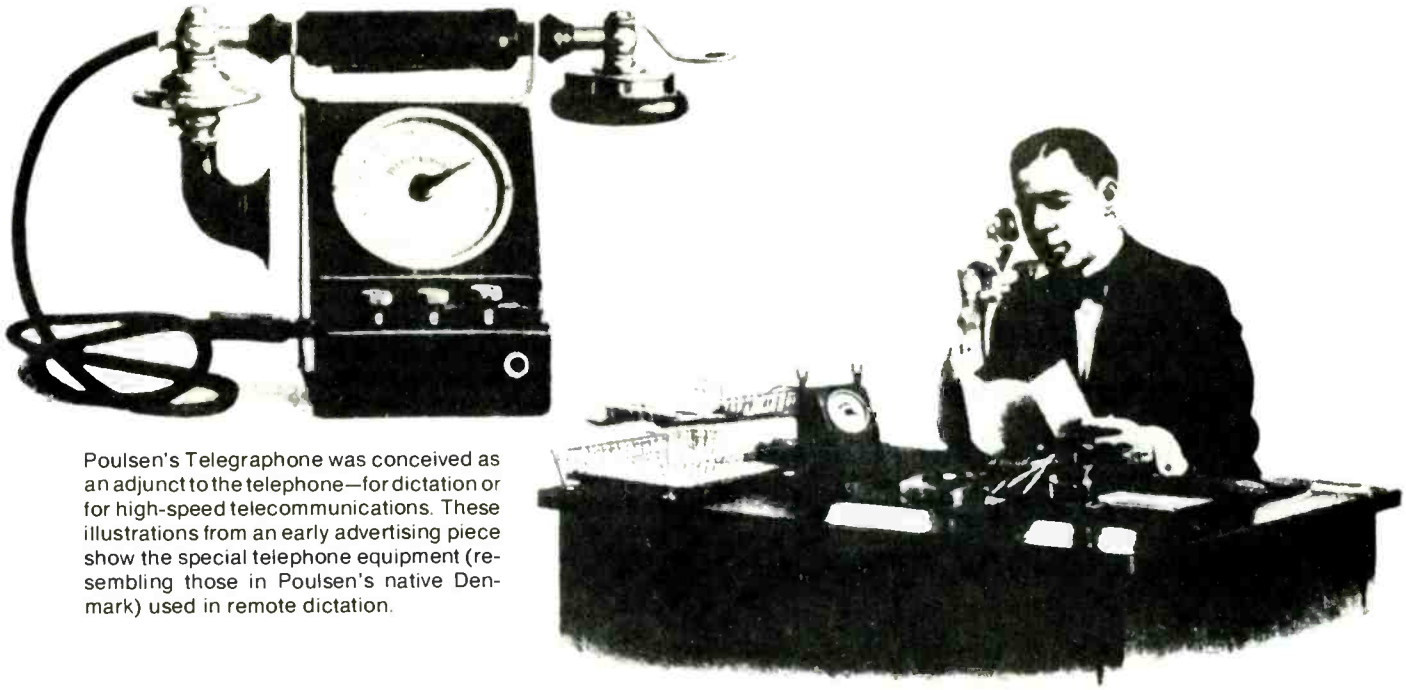
Some early work represented only a partial approach to the use of magnetism in recording. Edison had received a patent for a magnetomechanical system, using a sheet of steel, in 1878. C. S. Tainter (who with Chichester Bell—Alexander Graham Bell's cousin—developed the wax cylinder as an alternative to Edison's tin-foil phonograph) also had patented magnetic recording equipment in 1885. And in 1887 a Dutch engineer, Wilhelm Hedic, had developed a more elaborate system, using a tape containing magnetic particles (a system cited by Poulsen in his German patent application of 1898). But the systems of Edison, Tainter, and Hedic all were crude by comparison to Poulsen's in that they represented magnetic improvements to the acoustic recording medium; Poulsen's was all electromagnetic, and the medium has remained so ever since.

When he demonstrated it at the Paris Exposition Universelle of 1900, the wire recorder created almost as great a sensation as the telephone had when Alexander Graham Bell showed it at the Philadelphia Centennial Exposition in 1876. Show visitors stood in long lines to listen to recordings of their own voices; and the scientists marveled, for it disproved a time-honored theory. Poulsen demonstrated that localized magnetism could be put on a steel wire in varying degrees and that it would stay there without coalescing. Furthermore, the varying degrees of magnetism could, through Poulsen's electromagnetic device, reproduce sound. But scientists previously had discredited these basic ideas so completely that no contemporaries raced with Poulsen to perfect the invention. Unlike Bell, whose claim to the telephone was challenged by many, or Edison, who ultimately had to share credit for the phonograph as a money-making reality with several others, Poulsen alone was responsible for creating the Telegraphone and discovering the principle of magnetic recording.

The American Telegraphone Saga

Early in November of 1900, Poulsen arrived in Washington, D. C. with a model of his invention and an application for a patent. U.S. Patent No. 661,619 was granted on November 13, and Poulsen promptly set about creating a corporation in the United States to manufacture the machine.

Although the American Telegraphone Company was formed and stock issued early in 1903, nothing much happened until July 30, 1908. By that time most of the original capital was gone and Poulsen



Poulsen's Telegraphone was conceived as an adjunct to the telephone—for dictation or for high-speed telecommunications. These illustrations from an early advertising piece show the special telephone equipment (resembling those in Poulsen's native Denmark) used in remote dictation.

had returned to Denmark. Although it had a factory in Wheeling, West Virginia, American Telegraphone hadn't produced a single recorder. On that hot, sticky July day, the directors turned over control of the company to Charles Dexter Rood, the retiring president of the Hamilton Watch Company of Lancaster, Pennsylvania in return for a cash investment of $188,000 and his services as president, general manager, and member of the board of directors.

Rood, a native of Ludlow, Massachusetts, was one of those Yankee traders on whom legends are built. If biographical data is missing on Valdemar Poulsen, it exists in abundance on the farm boy who went to New York to sell jewelry for the princely salary of $500 a year. By the time he reached his sixty-eighth birthday, Rood had parlayed that job into ownership of Hamilton Watch and substantial real estate holdings in Michigan and Ohio.

Then, at a time when most men are thinking of retiring, Rood became involved with the ailing American Telegraphone Company—an involvement that, because of a series of curious episodes, would see him charged with treason in testimony before the U.S. Senate some twenty-four years later. When he died at the age of ninety-four in 1934, the Telegraphone had all but passed from view.

One of his first official acts after taking control of American Telegraphone was to move the factory from Wheeling to Springfield, Massachusetts. There, in a third floor loft at the corner of Dwight and Harrison Streets, he set up a factory that turned out a limited number of Telegraphones.

Whatever else Rood was, he was a master salesman. It was Rood who made the running of railroads on time synonymous with the Hamilton watch. He had persuaded every major railroad in the country to equip its trainmen and conductors with Hamilton watches, and to use Hamilton as their official timepiece. Now he was about to do the same thing with the Telegraphone. In Philadelphia, President Taft was scheduled to speak at the opening of John Wanamaker's new department store on December 30, 1911. Very well; a Telegraphone would be on hand to record the ceremony.

An even more dramatic opportunity came to hand with the murder of an insignificant gambler named Herman Rosenthal in New York on the night of July 21, 1912. The murder created a sensation that threatened to turn Tammany Hall inside out and shake up the city police department. Gambling and prostitution were rife in the neighborhood of Times Square, and many illegal operations seemed to have police protection. It was popularly believed that Lieutenant Charles Becker, head of Special Squad No. 1, was The Man. Meanwhile, a Republican governor had appointed Charles S. Whitman as district attorney in an attempt to clean up the mess.

Whitman had trouble getting information at first. But on the night of July 21, "Beansie" Rosenthal, a former partner of Becker's in a Forty-Fifth Street club, paid a call on the DA. Somehow the newspapers learned that Beansie had spilled all, and by the time the night was over Beansie lay dead on Forty-Third Street with four bullet wounds.

The underworld had no doubt about who was responsible for Rosenthal's death. Neither had DA Whitman, but proving it was another matter—until

a Citizens' Committee sprang up to provide Whitman with the investigative force he needed independent of Becker's police stooges. It was rumored that the money came from none other than J. P. Morgan, along with a suggestion that the DA use it to hire private detective William J. Burns.

It was to Burns that Rood went with his wonderful machine. "It will enable you to take reports over the telephone from your operatives, without the need for a stenographer," he is reputed to have told the detective. Burns never detailed exactly how he used the Telegraphone, but he was kind enough to give it some credit for solving the case. Later, at a public demonstration, which included the press, a representative of American Telegraphone recorded an incoming phone call. When he played it back, Burns listened, horrified. "Here," he cried, "wipe off that recording. You've caught all the report of one of my agents. That was meant only for me."

Thanks to anonymous tips and other information, Burns finally identified the four perpetrators. They led Whitman directly to Becker, who was tried and convicted. As a result, Whitman became governor of New York; the police department was reorganized; the corrupt city administration was voted out at the next election; and quite likely, the Burns agency was put permanently on the map. But sixty years later the Burns people could supply no further details on the Telegraphone episode.

While Rood was ballyhooing the Telegraphone himself, he ordered his employees not to talk to anyone, including the stockholders. And he warned the publishers of physics and electrical engineering textbooks that if they printed anything about the Poulsen patents he would sue them for patent infringement. By now the Springfield factory was in production and recorders began trickling out to customers. E. I. du Pont de Nemours & Company bought twenty for use as dictating machines in its offices in Wilmington, Delaware. And unbeknownst to the stockholders, six machines were sold to the German Navy on an order from Denmark—and thereby hangs another tale.

Two American shortwave stations were part of a transatlantic network linked to a station outside Hamburg, Germany. One, at Tuckerton, New Jersey, was completed early in 1912; that at Sayville, Long Island was finished a year later. While Telefunken built and operated the Tuckerton station, Sayville was operated by a U.S. firm named Atlantic Communications Company. Included in the complement of equipment at Tuckerton were at least two Telegraphones, delivered early in 1914 and described as having been used "with great success." Late that year the U.S. Navy seized the station in the belief that it might be used to inform U-boats about the movements of coastal shipping. While the seizure was widely reported, details on the equipment in use—including the Telegraphones—were kept secret until 1921.

Meanwhile, up and down the East Coast, radio amateurs were reporting peculiar noises at night. The noise began promptly at 11:00 p.m. and continued into the wee hours of the morning. One ham operator described the noise as "a musical note like the buzzing of a titantic bumblebee which sped through space." Another ham, Charles E. Apgar of Westfield, New Jersey, was so disturbed by it that he used his own homemade wax cylinder recorder to transcribe some of it. Beginning on June 7, 1915, Apgar faithfully recorded excerpts for two weeks, still not knowing what to make of the sound until one night when he forgot to wind the cylinder machine. As it slowed down, the buzzing became mere Morse code dots and dashes.

Chief Radio Inspector L. R. Krumm of the Bureau of Navigation in New York knew about the mysterious signals and heard about Apgar's recordings. He promptly summoned W. J. Flynn, then chief of the U.S. Secret Service, and Apgar to a meeting in New York. Apgar played his cylinders for Flynn. Based on them and on general suspicions about the station, the navy and the secret service seized it on July 10, and a lid of secrecy was clamped on what the navy men found there. By 1922, the government was willing to admit that there had been at least one Telegraphone on which messages had been recorded in Morse code at standard speed. The tape was played at high speed, re-recorded in Germany, and played back at the original recording speed. There was no code to be broken after all.

Then, shortly before the United States entered World War I, the German submarine *Deutschland* paid several good-will visits to Atlantic Coast ports. At one of these, the press was invited to see the latest in fighting ships, and a photographer took some pictures below decks. One of these plainly showed two Telegraphones.

In April 1918, the U.S. Signal Corp sent the company a routine request asking if the Telegraphone could be set up for recording messages. Rood replied that the company was still experimenting with it and discouraged the order. He suggested that such a use would be in the nature of an experiment—even though the secret service knew that the Germans had been using their Telegraphones in just this way for nearly four years. The Signal Corps wouldn't take no for an answer. Finally, in September—only sixty days before the Armistice was to be signed—the company delivered the first four machines. When they arrived, they failed to work, according to stockholder spokesman George Sullivan.

Sullivan told investigators for Senator Arthur Capper's Patents subcommittee some years later that during the construction period, Rood asked to be advised as to the proposed use of the equipment. The stockholder attorney said he actively sought intelligence data which conceivably could be re-

Charles Rood, controversial president of American Telegraphone, was photographed by local newspaper in 1932 celebrating his ninety-second birthday with dog, Hunter.

corded on the machines—including details on where the machines were to be placed, whether it would be in France or elsewhere, and under whose personal supervision they would be operated. Senate testimony reveals that Rood was also given information on the movements of the troop ship U.S.S. *President Lincoln*, carrying soldiers to France from the Springfield area. On May 31, 1918 it was torpedoed.

Shortly thereafter, the Poulsen patents expired. American Telegraphone never produced another machine, although the company continued in business for more than a decade. Its major business consisted of lawsuits and charges between minority stockholders and the aging Rood, who refused to the end to dignify with an answer the charges that he had sold out to the Germans.

The Upsurge of the Twenties and Thirties

But even as American Telegraphone was sliding into corporate oblivion, a German scientist named Nasavischwily, was experimenting with powdered oxide as a recording material rather than the piano wire used by Poulsen. And in the same year, other Germans were seeking to improve on Poulsen's expired patents. One, Kurt Stille, marketed a revised version of Poulsen's machine; the German Echophone Company sold the Dailygraph, a compact wire recorder; and a Karl Bauer is said to have developed the first recorder using a form of tape instead of wire.

German scientists may have been fascinated by the possibilities of magnetic recording, but the postwar German economy simply wasn't ready for it either as a hobby item or a business machine. Inflation made stenographers cheaper than wire recorders. Nonetheless, the experiments continued; and in 1927 a German engineer named Fritz Pfleumer succeeded in coating strips of plastic or paper with powdered magnetic material. AEG, the German electrical combine, believed that Pfleumer really had something, and persuaded I. G. Farbenindustrie of Ludwigshafen to develop the idea—laying the foundation for much that has followed.

Meanwhile, in the United States two scientists working for the U.S. Navy—W. L. Carlson and G. W. Carpenter—came up with the idea of AC bias as a way of cutting down on noise and insuring the permanence of recordings. The Navy had seized at least one Telegraphone at Sayville, and Secretary of the Navy Josephus Daniels had been intrigued by the invention. Accordingly, the navy continued to underwrite research into magnetic recording.

Yet another development stemming directly from the Telegraphone was the Blattnerphone, developed by another German, Prof. Blattner, and sold to the British Broadcasting Corporation and to one of Britain's new sound-movie studios. The Blattnerphone, according to Lynton Fletcher, the BBC's former head of sound recordings and one of the engineers who worked with it back in 1930 and 1931, resembled two ancient Irish spinning wheels joined together. It recorded on a steel band 6 mm. wide. It was possible to edit the band by cutting it with metal shears, then soldering the pieces back together again. "The result of this," Fletcher said many years later, "was that, on at least one occasion, you'd hear the announcer say, 'This is Mr. H. C. Harbinger of South Africa,' then you'd hear a plop as the soldered joint went through the reproducing head, and you'd probably hear the voice of Stanley Baldwin."

The Blattnerphone arrived in England in the charge of a young technician named Von Heusing. "There was only one engineer, there was only one machine," Fletcher recalls. "Both were extremely temperamental. Even in those early days we knew that what mattered in making a recording was that the machine should run at the same speed when it was being played back as it had run when the recording was being made. This the Blattnerphone flatly refused to do." Other BBC old-timers recall that the splices would come unsoldered, and everybody in the studio ducked to avoid being decapitated by bands of flying steel.

The Blattnerphone may have been a bomb, but it

This BASF photo was made during Beecham's concert at the Feierabendhaus in Ludwigshafen on November 19, 1936, when first taping of major musical event took place.

didn't deter other German technicians—including those at AEG and Farben. What was then the Ludwigshafen plant of I. G. Farben had been incorporated in 1865 in Mannheim, Baden as the Badische Analin- & Soda-Fabrik—BASF—but its first plant was built at Ludwigshafen on the other side of the Rhine in the Palatinate where it has remained ever since. Though it was absorbed into the Farben combine in 1925 (and became independent again with Farben's decartelization in 1953), it had kept much of its identity and even had to fend off other Farben divisions in developing tape. The Wolfen plant, devoted to the manufacture of films, already had appropriate equipment for tape production; but the directors in Ludwigshafen jealously guarded the project. It was not until the Ludwigshafen plant was razed by Allied bombs in 1944 that the operation was moved to Wolfen; and even then the Ludwigshafen personnel moved up the Rhine to Bavaria and built a temporary plant using a garage as the laboratory and production area, a beer cellar as storage space. But that was to come later.

In 1932, Ludwigshafen came up with its first practical coated tape, and the factory started research on producing it in industrial quantities. A year later, Blattner merged his interests with Marconi and Stille to create a vastly improved machine. At the same time, the C. Lorenz Company had acquired the rights to the Dailygraph, and marketed an improved version of it under the trade name Textophone. This wire recorder led Lorenz to the introduction of the Stahltonmaschine in 1934. Using steel tape like the Blattnerphone, it was put to commercial purposes by German radio in that year.

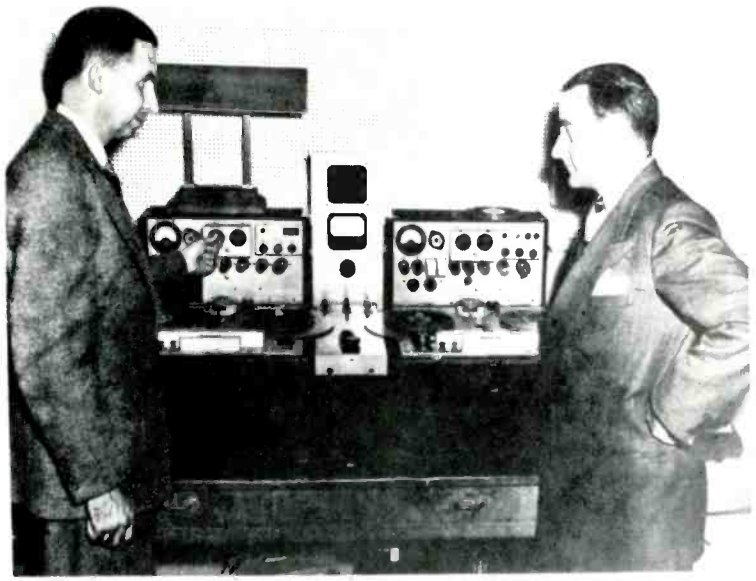
AEG and BASF had hoped to show their tape and equipment—to be known as the Magnetophon—at the Berlin Radio Fair in 1934. BASF had produced some 165,000 feet of tape, a tremendous quantity by the standards of the day, but when AEG put all the pieces of the Magnetophon together it was discovered that performance was not equal to that experienced in the lab using separate subassemblies. Formal demonstration was scrubbed at the last minute; but at the 1935 Radio Fair the Magnetophon finally was exhibited to the world. It was the first magnetic recorder that might have a familiar look to today's hobbyist, and remained much the same until its "discovery" by Allied forces in 1944.

In 1936 Sir Thomas Beecham happened to be touring Germany with the London Philharmonic Orchestra. Officials of BASF invited him to spend the night in Ludwigshafen and to give a concert in the employees' hall at the factory. The company wanted to make a recording of a live symphony orchestra, using the tape and a Magnetophon loaned by AEG. Beecham obliged, and the result was a milestone: the first modern tape of unquestionable musical importance—the minuet and trio of Mozart's Symphony No. 39, in E flat, recorded on November 19—and one that miraculously managed to survive World War II. [For details on how to obtain a copy, see editorial on page 4.]

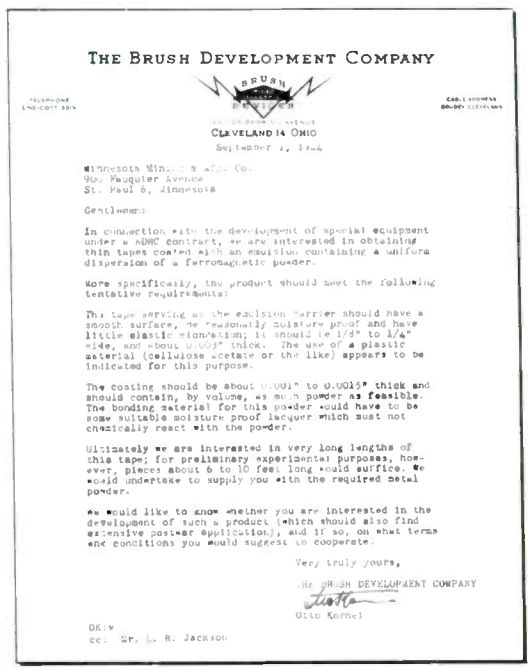
Tape—The Modern Medium

All this had happened publicly: the granting of Pfleumer's patent on tape, the introduction of tape and recorder at the giant Radio Fair, and their use to record the London Philharmonic. Yet the romance surrounding the discovery of Magnetophons as the spoils of war and their spiriting out of Germany in 1945 as booty by at least two technically minded American servicemen has so captured the public imagination that the real facts have become obscured with the years. The idea that tape was a strictly kept German secret until 1945 remains.

False though it is in this respect, the story of how tape recording "arrived" in this country is not without its charms, and even its moments of truth. Jack Mullin (now of the 3M Company) and J. Herbert Orr (founder of the Irish tape brand—with a little help from, again, Fritz Pfleumer—and builder of the Opeleika, Alabama tape plant now owned by Ampex) did bring the first Magnetophons to this country. Jack Mullin did team up with the Ampex people to produce the first American tape recorders appropriate for studio work—largely by copying the Magnetophon. And by demonstrating both the quality of the Magnetophon and the editability of



Jack Mullin (far left in 1947 photo showing taping of first Crosby show with producer Murdo McKenzie) and Herbert Orr (above) brought first Magnetophons to U.S. Brush already offered tape equipment here. Its 1944 letter to 3M, quoted in the accompanying article, is reproduced in its entirety below.



THE BRUSH DEVELOPMENT COMPANY

CLEVELAND 14 OHIO

September 4, 1944

Minnesota Mining & Mfg. Co.
900 Fauquier Avenue
St. Paul 6, Minnesota

Gentlemen:

In connection with the development of special equipment under a NDRC contract, we are interested in obtaining thin tapes coated with an emulsion containing a uniform dispersion of a ferromagnetic powder.

More specifically, the product should meet the following tentative requirements:

The tape serving as the emulsion carrier should have a smooth surface, be reasonably moisture proof and have little elastic elongation; it should be 1/8" to 1/4" wide, and about 0.003" thick. The use of a plastic material (cellulose acetate or the like) appears to be indicated for this purpose.

The coating should be about 0.001" to 0.0015" thick and should contain, by volume, as much powder as feasible. The bonding material for this powder should have to be some suitable moisture proof lacquer which must not chemically react with the powder.

Ultimately we are interested in very long lengths of this tape; for preliminary experimental purposes, however, pieces about 6 to 10 feet long would suffice. We would undertake to supply you with the required metal powder.

We would like to know whether you are interested in the development of such a product (which should also find extensive postwar application), and if so, on what terms and conditions you would suggest to cooperate.

Very truly yours,

THE BRUSH DEVELOPMENT COMPANY

Otto Kornei

OK:v
cc: Mr. L. R. Jackson

tape. Jack Mullin did capture the imagination of Bing Crosby's radio-show producers.

That was a key moment in the acceptance of tape on this side of the Atlantic. Crosby's show had been constructed by an elaborate copying process using transcription discs, but the quality suffered as a result and the costs were high. As Jack Mullin recalled the impasse in a recent issue of *Billboard*, it was a question of either solving the technical problems or returning to live broadcasting—something Crosby was loathe to do because it would prevent the sort of relaxed ad libbing that had become his hallmark.

Early in 1947 Mullin demonstrated his Magnetophon for the Crosby people. They appear to have given him some of their most difficult transcriptions—discs that had posed severe problems when the final montage had been made for broadcast—and asked him to assemble the appropriate section of the show on tape. They were delighted with the results, and in August of that year the first taped Bing Crosby show (for broadcast October 1) was put together. In one stroke the basis was laid for tape as *the* way of broadcast life in this country. So was the foundation of the Ampex Corporation as we know it, since Ampex was to build the replacement equipment that soon would take over from Mullin's two "liberated" Magnetophons. One interesting footnote to this tale is that although the October 1 show was recorded and assembled on tape, network executives appear to have been leery of the new medium. Transcriptions were cut from the tapes for the actual broadcast, and it was not until May 1948 that the Crosby show went out over the network direct from the original tapes.

What this narrative overlooks is the parallel work that already had been going on here before and during World War II. Of the many people in-

In recent photo George Eash (left), developer of what is now known as the Fidelipac cartridge, talks to Earl Muntz, who made it a commercial success in 4-track stereo form.

volved. Marvin Camras, then of Armour Research, is probably best known today. He had developed wire recording equipment that was used by the U.S. forces during the war and re-emerged (once more, primarily as dictation equipment) for private use with the end of hostilities.

Camras used AC bias, a standard feature of all current magnetic recording equipment, but one that was uniquely responsible for turning the early dictation equipment into a medium capable of handling musical recordings. It had been critical to the development of the Magnetophon, too, though as early as 1927 a patent had been issued (to W. L. Carlson) on the subject and much important work was done in the Thirties by Dr. Dean Wooldridge, then of Bell Labs. By 1938—the year in which the Magnetophon finally was accepted by the German broadcast industry—several American companies were actively working on magnetic recording equipment.

One of these was The Brush Development Company. It experimented with and even produced equipment using steel wire or bands, including some endless-loop steel-band systems proposed by Brush's Dr. Joseph Begun in the mid-Thirties; but as early as 1939 Brush also was marketing a paper-backed tape for use on what was to be known as the Soundmirror. So far had Brush progressed by September 1, 1944, that on that date—the eve of the fabled Magnetophon discovery at Radio Luxembourg—it wrote to the Minnesota Mining and Manufacturing Company (now 3M) to find out whether that company could produce "thin tapes coated with an emulsion containing a uniform dispersion of ferromagnetic powder. . . . The tape serving as the emulsion carrier should have a smooth surface, be reasonably moisture proof, and have little elastic elongation; it should be ⅛" to ¼" wide, and about 0.003" [3 mils] thick. The use of a plastic material (cellulose acetate or the like) appears to be indicated. . . ." In other words, it was describing magnetic tape as we now know it. BASF had not been crying in an international wilderness.

The end of the war brought rapid growth in the consumer field. Brush was, of course, ready with its Soundmirror; but its name soon was swamped by a welter of others, some of which are still with us: Concertone, Wilcox-Gay, Magnecord, Pentron, and Webcor were among the best known. By the mid-1950s the tape recorder had developed a well-defined niche both in the studio and in the home; but pioneers like Ched Smiley of Livingston Audio Products and Gene Bruck of Phonotapes believed that recorders might become as commonplace as transistor radios—despite the fact that the cheapest models cost nearly $100 (a Wilcox-Gay or Pentron half-track monaural recorder with tubed electronics). Only about 200,000 Americans actually were buying recorders at that time.

What was holding back the growth of tape, a Cleveland inventor named George Eash decided, was the fuss and bother of handling open reels. And Eash realized that open-reel recorders would never be practical as a source of music in cars. Only a few years before, Chrysler Motors had experimented with phonographs specially designed for the car, and found them wanting. Eash looked longingly at the new car sales of those years, and decided to come up with a player that wouldn't be affected by road vibration and could be operated easily by a driver. The result was a five-inch reel of tape inside a plastic shell. The tape was designed to feed outward from the hub, past a series of windows and notches, and rewind on the outside of the pack.

The inventor created a DC player to handle the tapes with its own retractable rubber idler wheel. In order to make the tape move smoothly, Eash developed a process for lubricating it. By the fall of 1956, he was sending prototypes of the cartridge and its player to manufacturers for their opinions; by the early 1960s several record labels were licensing their catalogues for distribution in the Eash cartridge (ABC-Paramount, MGM, and Verve were among the first), and several manufacturers were producing playback decks for the car or boat.

An early problem with the Eash cartridge was playing time. The 600-foot reel would hold thirty minutes of music at 3¾ inches per second—at the time, the slowest speed thought to have any real potential for music reproduction. Later, Eash switched to thinner-based tape, which increased the playing time by fifteen minutes. But it wasn't until multiple-track recording became commonplace that Eash's cartridge could be made to hold the desired hour of music.

In Toledo, another inventor, Bernard Cousino, also was working on an endless-loop cartridge. His was much smaller than Eash's, holding a mere four minutes. The Cousino cartridge still is in common commercial use, but neither it nor Eash's cartridge—later to be known as Fidelipac—made a major impact when they were first introduced. Fidelipac didn't really catch on until the fall of 1963, when a master promoter named Earl Muntz happened to see one. Muntz realized that with a few modifications the Fidelipac cartridge could be put under the dashboards of thousands of American cars. The first improvement Muntz insisted on was stereo, using the four-track playback heads developed by Michigan Magnetics and others to double the playing time. (For broadcast use Fidelipac cartridges still are recorded in full-track mono or half-track stereo.)

A few years after Viking began making the first Fidelipac playback units, Garrard developed its own tape cartridge. Garrard hoped ultimately to produce a tape system that could work like a record changer, dropping cartridges from a stack onto a player. The first model, introduced in England but

never sold in the United States, was a heart-shaped affair containing two complete reels. The tape was anchored to the hubs at each end and simply played from one to the other in a device resembling an ordinary open-reel recorder. Garrard's engineers felt that even if they hadn't achieved the automatic changer, they had eliminated the threading problem.

A more sophisticated answer was RCA's cartridge, introduced in 1958 to solve the same problem. For months, RCA's publicity men beat the drums for the system that would not only revolutionize tape, but perhaps replace the record as well. Like Garrard's system, it was designed to operate in a changer. And like Garrard's cartridge, the plastic shell included two hubs, with tape anchored at each end. The difference was size: RCA's cartridge used quarter-inch tape recorded at 3¾ ips in a plastic shell about the size of a paperback book. The cartridges could be stacked and changed exactly like records—or, at least, that's what the company thought. The trouble was that early changers jammed instead of changing. And, in a recession year, prices were higher than competing open-reel tapes or records.

Still another cartridge intended for use with automatic changers came on the market in the fall of 1961. It was unique among audio tape products in having one end of the tape anchored within the cartridge, the other being wound into the player during reproduction and rewound into the cartridge when playback was complete. CBS Labs had done developmental work on the system; the Revere division of Minnesota Mining (now, of course, known as the Mincom Division of the 3M Company) made the players; Columbia Records issued a number of cartridges for them. The then ultra-slow transport speed (1⅞ ips) made the cartridges among the most compact ever proposed, but it also apparently limited their potential musical quality and the idea failed to catch on with other major recording companies. This open-ended type of cartridge is represented today only in cartridge-TV.

By the fall of 1963, all of the forces that were to shape tape for the next ten years were in place. All of the basic engineering had been done. It was the biggest year ever for the sale of open-reel tape recorders, with a number of reasonably priced battery-operated portables making their appearance for the first time.

Whereas most of these used three-inch reels of tape, Norelco slipped in one that was different. The Carry-Corder, priced at $149, used a twin-hub cassette filled with tape only about ⅛ inch wide. If you looked quickly at the cassette, you could be forgiven for thinking it was a miniature replica of RCA's ill-fated cartridge. Operation and over-all contours were remarkably similar. Norelco made no claims for its mono-only cassette as a music-reproducer. The Carry-Corder was a dictating machine and nothing more, according to Norelco and its parent company, Philips of the Netherlands. But in short order mono cassettes containing musical (usually popular) programs appeared on the European market. The cassette was on its way. Yet by the time the company realized the potential of its pocket recorder and minicartridge, still another type had appeared.

It came from promoter and manufacturer of jet aircraft Bill Lear. Lear, like Muntz, realized the potential of tape players in cars. Unlike Muntz, who was selling four-track units to people who already owned cars, Lear concentrated on the automobile manufacturers. In 1965 he persuaded Ford Motor Company to offer players built into its new cars. To provide the music, Lear signed up RCA and in short order other major record producers. Motorola began making Ford's players, and Lear Jet made units for RCA.

The Lear Jet cartridge looked suspiciously like Muntz's modified version of the Fidelipac. But to observers who charged that the Lear cartridge was merely a way around the Eash patents, Lear retorted that his cartridge used eight tracks instead of four, thus doubling the amount of music on a given length of tape. To trigger automatic switching from one pair of tracks to the next, the Lear cartridge used a strip of metal foil spliced into the tape. And instead of using a retractable pinch roller in the player, Lear built a rubber roller into each of his cartridges.

There have been other cartridge tape proposals—most recently what is known in Japan as the Hypac cartridge (essentially a miniaturized Fidelipac) and the Faraday Corporation's Cartrette (even more miniaturized). But—as readers of this magazine must surely know—the major thrust of the last few years has been in the refinement of the tape systems already in existence: noise reduction, improved magnetic coatings (including, of course, Du Pont's Crolyn, the first of the chromium dioxide tapes, about which the first announcements appeared some five years ago, and various formulations using cobalt or nickel as active ingredients), added convenience features, greater reliability, and a host of other factors that contribute to improved performance in fields as diverse as quadraphonic recordings and computer technology.

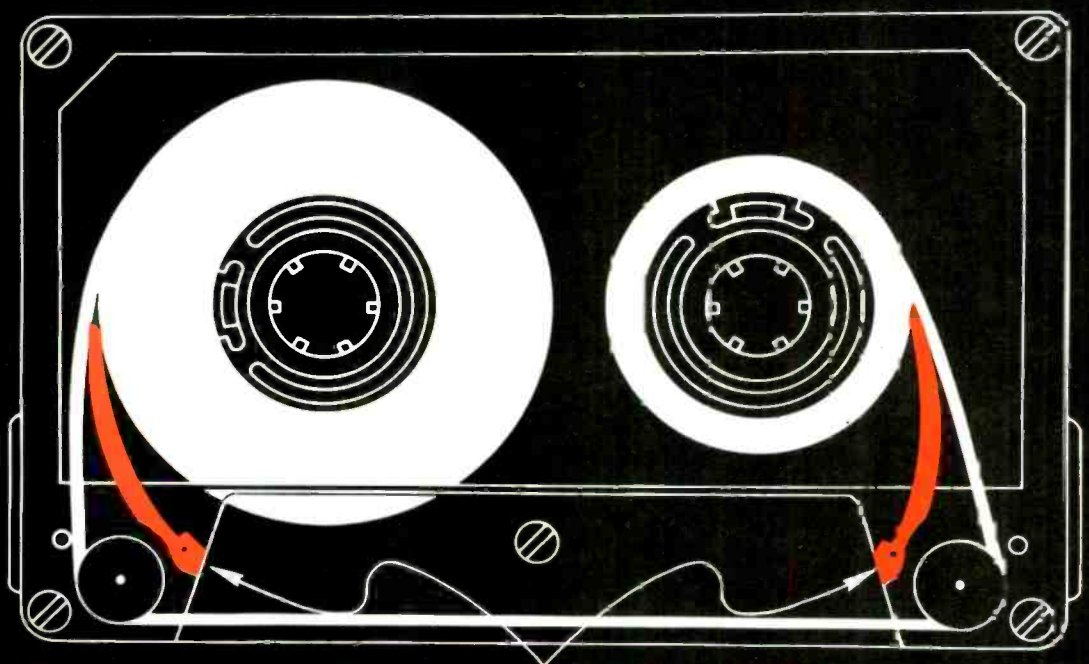
Yet despite the growth and refinement of the medium, tape remains essentially the product conceived by Mr. Pfleumer and produced by BASF in 1934—the halfway point in the uneven and often devious seventy-five-year progression that has turned Valdemar Poulsen's telephonic and stenographic contraption into a host of products that continue to both amuse and amaze the world. ●

BASF jamproof cassettes.

Now all BASF cassettes feature jamproof special mechanics. * The most significant design breakthrough in the cassette marketplace today. Prevents jamming of invaluable recordings. Eliminates wow and flutter. Prevents tape edge dropouts.

Finally a cassette with 100% mechanical reliability. Buy BASF Cassettes with jamproof special mechanics.

For the BASF dealer nearest you, write BASF SYSTEMS INC, Bedford, Massachusetts 01730.



Two precision guide-arms insure smooth precise winds to eliminate jamming.

*Patent Pending

Audio/Video Products

BASF

by Edward J. Foster

How We Test Cassette Tapes

IN SETTING UP a program to evaluate cassettes for consumer use we are faced with a dilemma. Should we adjust the test equipment for optimum performance with each tape we test or should we run all tapes on a "uniform test bed" with no changes in the equipment? The first approach will determine the ultimate capabilities of each tape: that is, the best performance of which the tape is capable *if* the user's machine (meaning largely its bias and equalization) is optimized specifically for it. With the second approach we'll end up with data showing the relative performance of different brands when treated in a consistent manner.

We—CBS Labs and HIGH FIDELITY's editors—pondered the matter for some time before opting for the uniform test-bed approach. If the purpose of the tests had been to determine which tapes have the greatest potential or to work out optimum tape-to-recorder relationships for a unit still in the design stage, the first approach would have been better. But that's not the case here. You, as a cassette deck owner, generally cannot vary the bias and equalization of your equipment (except within the limits provided by a tape selector switch), so the uniform test bed is basically consistent with your situation and the data it yields more readily answer your questions as long as you know how to interpret the findings.

If, for example, you experience a lack of highs when using brand A, what brands can you choose that will give you a brighter high end without readjusting your deck? Or let's say you like the performance of brand B. What other brands will give you comparable performance? These are questions best answered by a relative ranking of tapes on a common test bed. The only change we made in bias and equalization settings was that required by the difference between the high-performance iron oxide tapes and chromium dioxide tapes—the equivalent of the "low-noise" and "CrO_2" positions on many tape-selector switches. But within these two groupings all tapes were tested identically.

Testing Procedures

The actual tests we performed fall into four categories: 1) relative sensitivity as a function of frequency; 2) maximum recorded level as a function of frequency; 3) NAB-weighted noise measurement; and 4) a count of audible dropouts in two fifteen-minute segments of tape. We acquired tapes from a cross section of leading manufacturers. Only premium-grade iron oxide and chromium dioxide tapes were selected. After some preliminary tests we decided to use C-60s, rather than C-90s, because they combine an adequate recording time with somewhat better mechanical and electrical properties on average. Ten of the resulting tests appear in this issue. More will be appearing in future issues.

Most of the tests in the series were performed on a prototype consumer version of a Nakamichi professional deck. The professional unit is used in Japan for tape testing on the manufacturer level. The Nakamichi deck has a separate playback head, so we could monitor the tape as we were recording. This is an extremely valuable feature, especially when testing for maximum recorded level.

In order to avoid giving any of the tapes under test an apparently unfair advantage we set the Nakamichi machine for flat response with reference sample ferric oxide and chromium dioxide tapes supplied by Nakamichi.

Relative Sensitivity

The graphs for relative sensitivity and maximum recorded level appear similar to each other—and resemble a conventional frequency-response curve—since all three plot output level in dB as a function of frequency. They must be interpreted differently, however, and here's why. The relative sensitivity curve shows how much signal will be retained by the tape at different frequencies *at very low recording levels*, where tape saturation and self-erasure do not significantly affect test results. The level chosen is 30 dB below the DIN standard 0-VU level, or –30 VU. The sensitivity curve tells you which tapes have a "hotter" or more sensitive high end. Don't necessarily look for the *flattest* response; that's a function of the particular machine that is used. If you have been pleased with the results of one tape in our test group and you want to

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know what will give you an equivalent low-level response, choose one that has the same sensitivity-curve shape. If you want a brand with a somewhat brighter high end than you have had in the past, pick one whose high end is raised relative to the tape you've been using; do the converse if you want to tone down the highs. Once again, compare these curves with each other—not against a straight line.

Along with the relative sensitivity curves there is a relative sensitivity rating number. All the curves have been "normalized" so that they arbitrarily pass through the 0-dB level at 400 Hz, making it easier to compare relative shapes. The relative sensitivity rating number tells you which tapes provide greater output level for a given input at 400 Hz. That is, a tape with a rating of +2 dB will record 2 dB more flux level on the tape for a given VU-meter reading than will the Nakamichi reference tape. You will want to take this into account when recording. For example, if you are accustomed to brand C with a relative sensitivity rating of −1 dB and switch to brand D with a rating of +2 dB you will be gaining 3 dB of signal level for the same VU meter reading.

If your deck is Dolby-equipped you should recalibrate the Dolby circuitry to take the increased sensitivity into account; that is, the Dolby-level reading should be the same no matter how sensitive the tape is. With or without Dolby, increased sensitivity is important since it could bring you closer to tape saturation; you may wish to compensate for this increased sensitivity by recording at a lower meter reading.

Maximum Recorded Level

To tell how much headroom—or ultimate signal capacity—the tape has, refer to the curves for maximum recorded level—which we'll abbreviate as MRL. Working at seven different frequencies, ranging from 100 Hz to 20 kHz, we increased the recording level until distortion reached 3% THD in the output signal or until the output signal reached a maximum at saturation, beyond which self-erasure occurred. Whichever happened first, we took the output level as an indication of the maximum recorded level of which the tape is capable at that frequency for audiophile use. The seven points are then plotted as a continuous curve. The 0-dB reference for the MRL curve is the standard DIN 0-VU level. With ferric oxide tapes, 3% THD is reached before self-erasure sets in at all frequencies below 2 or 3 kHz. For CrO_2 tapes self-erasure doesn't occur until past 5 kHz.

All things being equal you're best off with the tape that has the best MRL especially at frequencies above 5 kHz. Remember the MRL is *not* a frequency-response curve; instead, it tells you how much toleration to overload the tape has. But at high recording levels you can drive a tape into self-erasure at high frequencies, and the MRL of the tape will then be a limiting factor in determining the *effective* frequency response of your system. That's why your instruction manual may warn you to record well below the "zero" level to avoid muddy-sounding, dull tapes. By choosing a tape with a better (higher) MRL you can produce cleaner recordings at a higher level.

Noise Measurements

If the MRL is one side of a coin, the residual noise level of the tape is the other. Together they determine the available dynamic range that can be recorded on the tape. The noise level of the tape, like that for electronic equipment, is referenced to an assumed peak signal level—in this case the DIN 0-VU level. Rather than make a broadband noise measurement (one that treats all frequencies equally), we chose to use the NAB weighting function, which emphasizes different noise frequencies in a manner calculated to approximate low-level human hearing sensitivity. The results of the weighted measurement correlate more closely to the actual noise the average person can hear.

We hunted through our available cassette decks and chose the Harman-Kardon HK-1000 [see test report, this issue] as the test bed for noise measurements. Good as it is, the electronic noise of the deck is of the same order of magnitude as that from the tape, so the noise measurements are inflated by this unavoidable residual.

Dropout Count

As you no doubt know, any imperfection in the tape's oxide coating or any dirt on the tape surface can give rise to a momentary signal loss or "dropout." While dropouts are not nearly as severe a problem as they once were and are rarely encountered in today's better tape products, really audible dropouts are disastrous to music recordings. Whether or not you hear the flaw depends upon the duration of the loss, what percentage of the signal is lost, and how individual dropouts are clustered.

Several years ago CBS Labs made a series of tests to determine audibility factors of dropouts in music. Based on the results of those tests, a device was designed to categorize dropouts in terms of severity and count the frequency of dropouts in each category. What it registers as minor dropouts are barely perceptible; medium dropouts are readily perceived in fairly continuous music; major ones will be perceived in almost any type of music. We recorded a 3-kHz signal on two fifteen-minute sam-

ples of each tape, using both tracks of the stereo pair, and used the device to analyze the results.

Using the Tests

In choosing a tape you must weigh all the factors we've reported on. Pick one with the best MRL; but check that its sensitivity curve is a close match to one you know works well with your machine or you'll need to adjust the bias and/or equalization. It's a good idea to begin by checking the deck manufacturer's tape recommendations and use them as a guideline, selecting similar types. Check the relative sensitivity rating number to get an idea on how to set your recording level (and to determine whether you will need to readjust the Dolby circuits). Then verify that the noise and dropout levels of your candidate are low. Remember too that noise and MRL are interrelated. If tape E has 2 dB less noise (that is, its noise level is 2 dB farther down) by comparison to tape F, but a comparison of MRL curves shows that you may record at levels 3 dB higher on tape F, the net signal-to-noise when both tapes are used optimally is 1 dB better for tape F than for tape E.

Above all, of course, *try* the tapes you're interested in. Not only will actual use give you a better grasp of the factors represented in these tests, but it will show up other differences that may be of importance to you. You may find that you prefer one type of packaging or that one brand's tape lengths are better suited to your needs than another's. Technically, these are minor points; but they can contribute materially to your enjoyment of the cassette medium.

Tests of Ten Cassette Tapes

IT SHOULD SURPRISE nobody if we begin by pointing out that all the cassettes we tested in this group did well. We felt that only the serious recordist would be interested in seeing test data, and therefore we tested only brands that we would expect the serious recordist to choose: nationally available premium cassettes with either chromium dioxide or low-noise ferric oxide magnetic coatings. To the ten types represented here we will be adding tests of comparable, competing cassettes in future issues.

The test method is explained in the foregoing article by Ed Foster of CBS Laboratories, which prepared the lab data for us. The cassettes in this group are equally divided between five ferric oxide and five chromium dioxide types. As Foster explains, equalization and recording bias settings in the recorders used for the tests were different for the two tape groups, just as they presumably will be on your equipment if it includes provision for recording on chromium dioxide tapes. Since recorder manufacturers differ in the specific values they choose for either tape type, however, the test data must be interpeted as indications of relative performance within each group.

The striking thing in these comparisons, however, is the similarities rather than the differences between tapes. Particularly among the chromium dioxide cassettes the differences generally are so slight as to be negligible. Even among the ferric oxide tapes the differences, while evident, are not major ones. They indicate that for most purposes perfectly satisfactory recordings can be made on properly adjusted equipment using any of the brands tested. The data presented here become important, then, only if you are looking for the very best match between tape, program material, and recorder.

Unless otherwise specified all cassettes are delivered in the so-called Philips hinged plastic box with a paper indexing insert. Though simple and inexpensive, we find this box both attractive and efficient; the more elaborate packaging of some premium cassettes often proves less so, while the minimal packaging of budget cassettes generally offers less (or no) space for indexing, no hub locks to prevent tape loops from forming within the cassette, and little if any protection from dust. The cassettes themselves all have some sort of label, though its useful space varies and those using silver paper generally cannot be erased without smudging the silver. In this group we found no silver papers that would not accept a ballpoint pen. (In the past some silver labels didn't.)

Craftsmanship of the molded parts of which the cassette itself is constructed was good or better on all the samples we examined. (Where it is particularly good, the fact is noted in the report.) Except as noted, all cassettes provide a small (approximately ¼ by ⅜ inch) clear window to view tape, light-colored plastic hubs, and a small, spring-mounted pressure pad. Other mechanical features are noted in the text, though their importance often is the subject of debate among manufacturers and users alike. For example, a welded case may ensure more permanent alignment, but screw construction lets you get inside the cassette to fix a broken or detached tape. List prices, as far as we are able to determine them, are shown for C-60s only, since that length is manufactured by all the reported companies and costs thus can be compared; many brands often are sold below list, however.

One special note about the dropout-count figures. In order to avoid penalizing (or lauding) any brand on the basis of a tape sample that was partic-

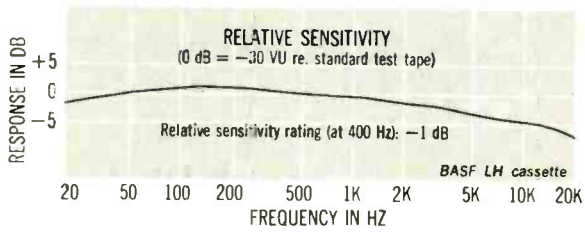
ularly low (or high) in dropouts, the lab ran fifteen-minute tests with each of two samples. The considerable difference between the two in some brands proves the wisdom of this decision, and further suggests that even wider variations would show up in a larger sampling. We do think the results prove the degree to which tape manufacturers have solved this sometimes pesky problem, however. The lab found "major" dropouts (as defined in Foster's article) only in one sample of one brand; the other sample of that same brand registered no dropouts whatever. Almost all of the dropouts measured were in the "minor" class—that is, inaudible in most musical material.

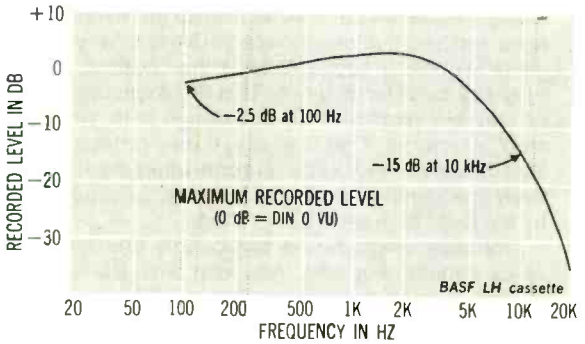
BASF SK Low-Noise Ferric Oxide Cassette

BASF describes SK as a low-noise tape, though it is one step below BASF's own LH (for low-noise, high-output) in the company's cassette line. The SK's output is not high, in fact; sensitivity, at −1 dB, is the lowest for any cassette among the five ferric oxide types shown here. But signal-to-noise ratio is, at 57 dB, the best of the group, compensating for the slightly low output. Relative sensitivity falls off somewhat more at high frequencies than it does for most of the tested tapes. On recorders set up for tapes with a relatively "hot" high end, you may prefer to use the SK with the tape selector in the "regular," rather than the "low-noise" setting; on other equipment the "hotter" tapes may produce recordings that are too bright, making SK preferable, even with the selector set for "low-noise." Since the overload curve (maximum recorded level) falls off particularly steeply at the high end, you should take extra care with recording levels when high-level high-frequency passages are involved. It may be necessary to cut back the level in order to keep highs clean and open.

The welded cassette case has a silver paper label. Head shielding was judged slightly better than average. Idlers are mounted on metal bearing pins. SK cassettes come in C-30, C-60, C-90, and C-120 sizes; a C-60 lists at $2.02.

CIRCLE 152 ON READER-SERICE CARD



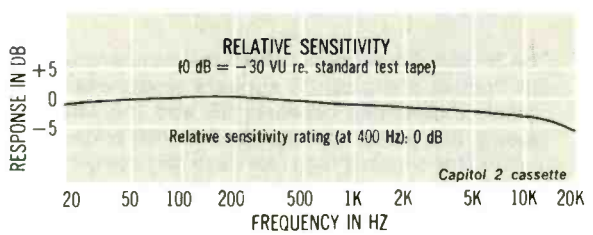


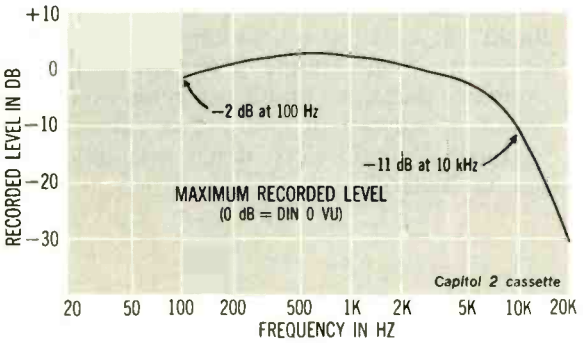
BASF SK Additional Data

S/N ratio (NAB)		57 dB	
Dropout count	Major	Medium	Minor
sample 1	0	0	0
sample 2	0	0	2

Capitol 2 Low-Noise Ferric Oxide Cassette

Though the Capitol name is relatively new in blank tape, the Capitol division that manufactures it resulted from the purchase, a few years ago, of Audio Devices—a long-time manufacturer of blank tapes for both consumer and professional use. The Capitol-2 formula may be termed middle-of-the-road in this group. The 400-Hz sensitivity rating is par (0 dB), while the high-frequency sensitivity is not particularly "hot." Maximum recorded level is fair at the top end; some extra care should be taken with program material having an abundance of highs to prevent overload.





Capitol 2 Additional Data

S/N ratio (NAB)		56.5 dB	
Dropout count	Major	Medium	Minor
sample 1	0	0	0
sample 2	2	1	4

The case uses screw construction, and idlers are mounted on metal bearing pins. The label is silver paper. Capitol 2 cassettes can be bought in Stak-Paks, which hold two cassettes per drawer in interlocking units that we found somewhat cumbersome to open when stacked. Sold individually, they come in standard boxes and in C-40, C-60, C-90, and C-120 lengths; a C-60 lists at $2.98.

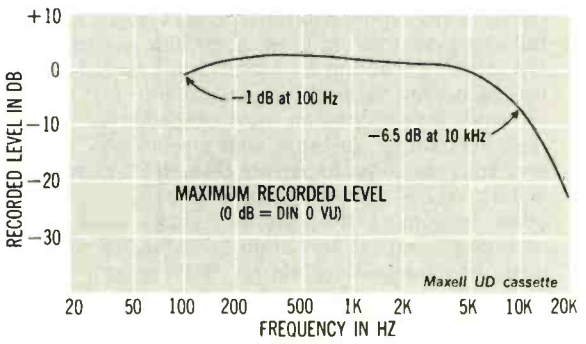
CIRCLE 161 ON READER-SERVICE CARD

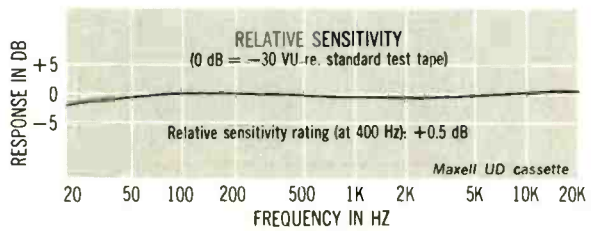
Maxell UD Low-Noise Ferric Oxide Cassette

Some superlatives are in order for UD. It has the best dropout count we have measured so far; it has, on averages, the best overload characteristics of any ferric oxide tape in this group; and it has the "hottest" high end of any of these ferric tapes. This last measurement may or may not represent an advantage with your equipment, of course. That is to say, it may produce recordings that sound too bright on some equipment. The relatively low signal-to-noise measurement is largely offset by the fairly high sensitivity rating.

The case, which has a particularly fine finish, uses screw construction and metal idler pins. UD is available in C-60, C-90, and C-120 lengths; a C-60 lists at $3.75.

CIRCLE 162 ON READER-SERVICE CARD



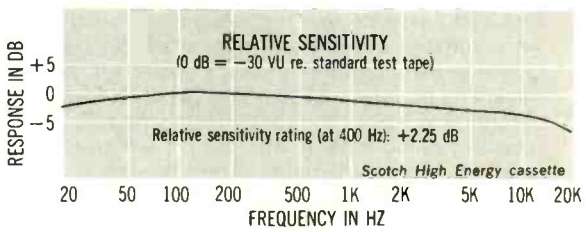


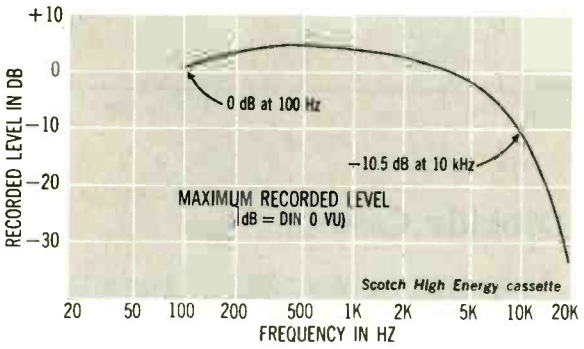
Maxell UD Additional Data

S/N ratio (NAB)		55.5 dB	
Dropout count	Major	Medium	Minor
sample 1	0	0	1
sample 2	0	0	0

Scotch High Energy Low-Noise Ferric Oxide Cassette Cobalt-Doped

The 3M cobalt treatment (which the company prefers to call "cobalt energizing") appears responsible for two notable differences between HE and the other ferric tapes in this group: the high (+2.25 dB) sensitivity rating, and the similarly high (almost 5 dB) margin for overload at mid-frequencies. These figures, added to the par signal-to-noise ratio (56.5 dB), result in a somewhat greater dynamic range for this tape, when all factors are used at optimum, by comparison to the other ferric oxides. The high end is not as "hot" as most.





Scotch High Energy Additional Data

S/N ratio (NAB)		56.5 dB	
Dropout count	Major	Medium	Minor
sample 1	0	1	7
sample 2	0	0	1

Inside the newly restyled outer box (still of the standard type) is a smoky plastic cassette with silver paper labels and an integral window design (replacing the usual separate piece of clear plastic, which occasionally may come loose) that is slightly larger than average. Case halves are mated with unusual precision, and the sonic welding proved to be the strongest we have yet encountered. The "idlers" are fixed, metal-clad studs. High Energy comes in C-45, C-60, and C-90 sizes, the C-60 listing for $3.00.

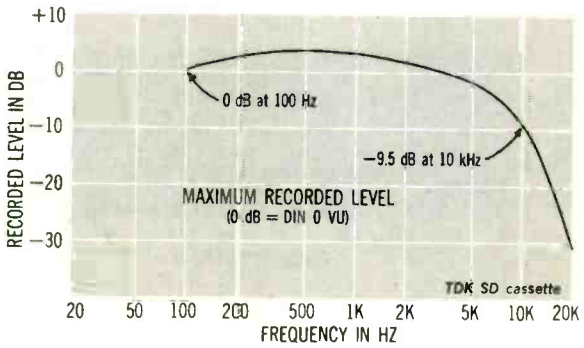
CIRCLE 157 ON READER-SERVICE CARD

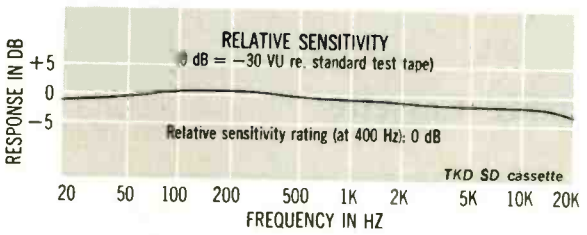
TDK SD Low-Noise Ferric Oxide Cassette

A number of today's recorders are optimized for SD. If yours is, the SD sensitivity curve will serve as the "standard" for your machine. The high end is not particularly "hot" by comparison with other ferric oxide tapes in this group. Other measurements too are about par: The maximum recorded level curve is good, but not spectacular; sensitivity rating and signal-to-noise are squarely in the middle of the field.

The excellently crafted case is held together by screws and uses metal idler pins. SD is available in C-30, C-60, C-90, and C-120 lengths; a C-60 lists at $3.45.

CIRCLE 156 ON READER-SERVICE CARD



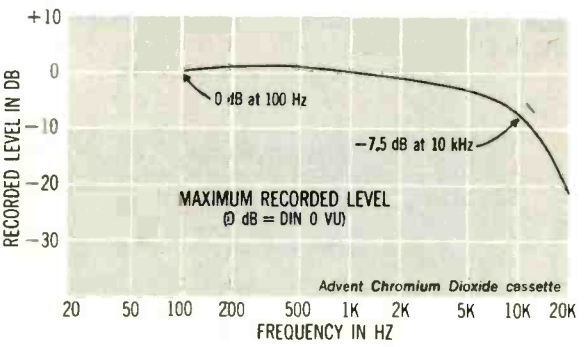


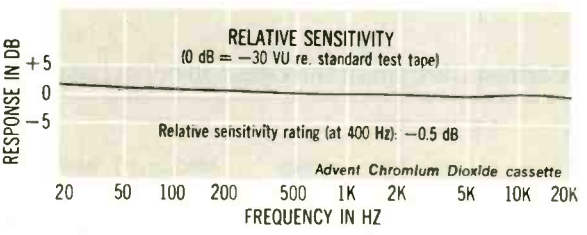
TDK SD Additional Data

S/N ratio (NAB)		56 dB	
Dropout count	Major	Medium	Minor
sample 1	0	0	1
sample 2	0	0	5

Advent Chromium Dioxide Cassette

Advent's cassette provided the lowest dropout-count reading in the chromium dioxide group. Otherwise it





represents par performance all round.

The case has screw closings and metal idler pins. Its label has a special box for indicating Dolby-processed recordings. It is available either in a library holder with a twelve-cassette capacity or in standard boxes, in C-60 or C-90 lengths; the C-60 lists at $2.99.

Advent Chromium Dioxide Additional Data

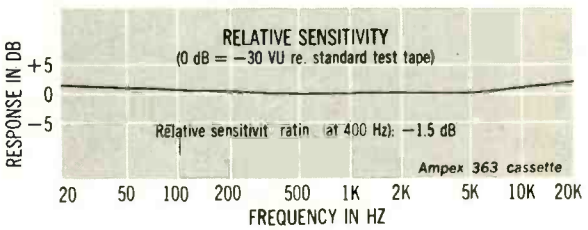
S/N ratio (NAB)		60 dB	
Dropout count	Major	Medium	Minor
sample 1	0	1	0
sample 2	0	0	1

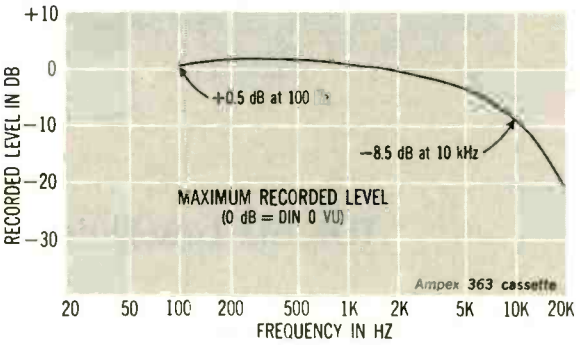
Ampex 363 Chromium Dioxide Cassette

Ampex's chromium dioxide cassette performed at par with other tapes in the group, with two exceptions: the lower sensitivity rating (−1.5 dB) and slightly "hotter" high-end sensitivity.

The welded case offers less than average space for labeling and uses metal idler pins. Ampex 363 cassettes come in C-40, C-60, and C-90 lengths; the C-60 lists at $4.25.

CIRCLE 154 ON READER-SERVICE CARD





Ampex 363 Additional Data

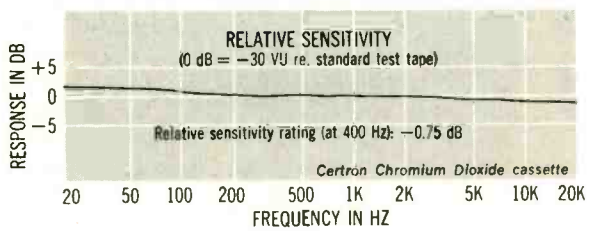
S/N ratio (NAB)		60 dB	
Dropout count	Major	Medium	Minor
sample 1	0	1	5
sample 2	0	0	1

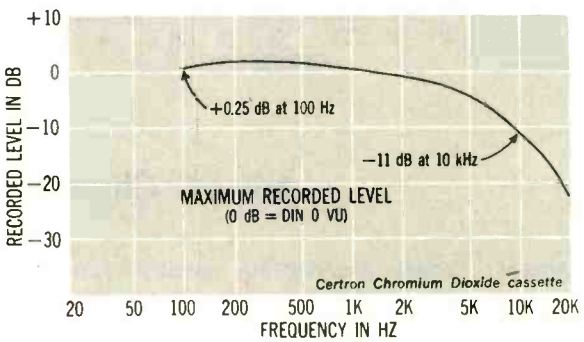
Certron Chromium Dioxide Cassette

While the overload (maximum recorded level) curves for the other chromium dioxide cassettes in this group are almost identical, that for Certron's entry shows a somewhat reduced maximum level in the region of 10 kHz. This was judged only a minor difference. Otherwise the Certron cassette may be rated at par.

The screw-type case has metal idler pins. Shielding was judged slightly smaller (and therefore presumably less effective under some circumstances) than average. C-60 and C-90 sizes are available, the former listing at $1.99.

CIRCLE 155 ON READER-SERVICE CARD





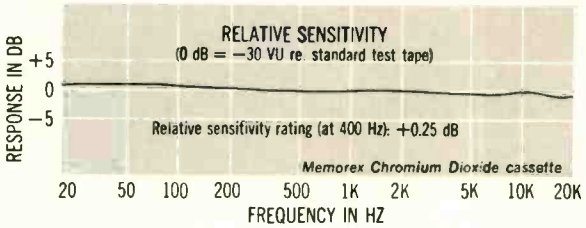
Certron Chromium Dioxide Additional Data

S/N ratio (NAB)		60 dB	
Dropout count	Major	Medium	Minor
sample 1	0	1	12
sample 2	0	0	2

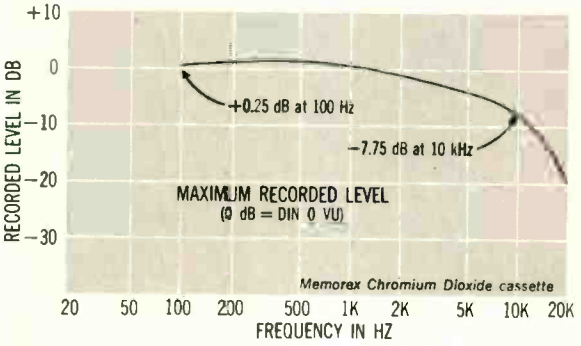
The Memorex entry produced a somewhat higher output than the other chromium dioxide brands tested, as represented by the +0.25-dB, 400-Hz sensitivity rating; but its signal-to-noise ratio was slightly lower. Both of these departures from average are minor, however, and are largely self-canceling. The over-all rating is therefore par.

The well-crafted case is held by screws and has molded-in plastic idler pins. The pressure pad is larger than average and is mounted on a springy foam pad. The wrap-around head shield is unusually generous in design. So is the window, which allows an excellent view of the tape within; but the hubs are dark in color, making tape motion difficult to spot with the dark (usually black) hub spindles so often employed in cassette decks. The silver label (whose paper represents a big improvement over that used in early Memorex cassettes) on the cassette case offers average space for identification; that on the box offers far less than average. The box, a nonstandard design that opens from the side, has no hub locks. C-45, C-60, and C-90 lengths are available; the C-60 lists at $3.95.

CIRCLE 158 ON READER-SERVICE CARD



Memorex Chromium Dioxide Cassette



Memorex Chromium Dioxide Additional Data

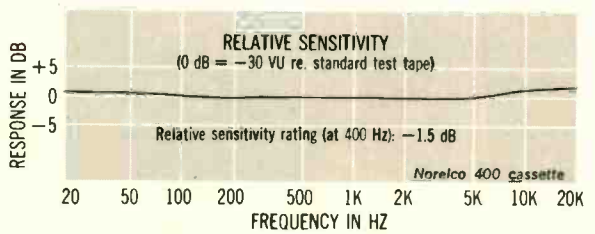
S/N ratio (NAB)		59 dB	
Dropout count	Major	Medium	Minor
sample 1	0	0	4
sample 2	0	1	0

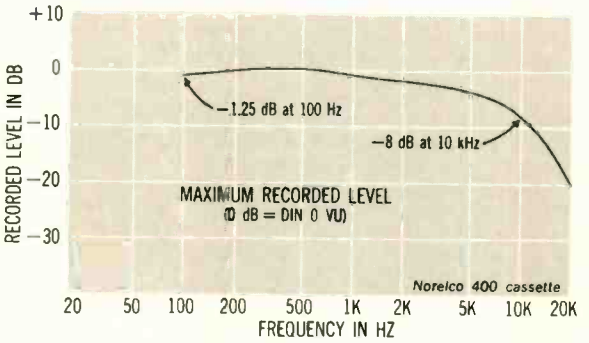
Norelco 400 Chromium Dioxide Cassette

The similarities in test data between the Norelco 400 and the Ampex 363 make the two appear entirely interchangeable, with somewhat lower 400-Hz sensitivity than the other brands and a slightly "hotter" high end.

The case is held by screws and has metal idler pins. Pivoted arms are provided to encourage even winding of the tape within the cassette. The silver paper label offers less usable space than average. Norelco 400 cassettes are available in C-60 and C-90 lengths; the list price of a C-60 is $3.49.

CIRCLE 160 ON READER-SERVICE CARD





Norelco 400 Additional Data

S/N ratio (NAB)		60 dB	
Dropout count	Major	Medium	Minor
sample 1	0	0	0
sample 2	0	2	6

eer's new nd

phase distortion, plus substantially better stability with four double tuned phase linear ceramic filters and four monolithic IC's in the IF section.

6-stage limiters

The IF section includes 6-stage limiter circuits. Used in conjunction with differential amplifiers in monolithic IC's, noise interference is completely elimin – ated with a signal to noise ratio of 75dB.

Exclusive Phase Lock Loop (PLL) IC circuitry in the TX-9100 multiplex section

Developed and used for the first time by Pioneer, the Phase Lock Loop (PLL) circuit is actually an electronic servomechanism. It maintains continuous and precise phasing between the pilot signal and the subcarrier, supplying optimum channel separation. Completely drift free, no alignment is ever required.

The PLL cannot be affected by humidity or temperature since there are no coils or capacitors to be detuned. This provides complete stability and reliability.

New pulse noise suppressor in the TX-9100 operates with computer control

This circuit operates automatically when it is switched on. It effectively blocks radiated noise from airplane and auto ignition systems, neon and traffic lights, etc. It does not interfere with frequency response and stereo separation. Whether the signal is weak or strong, this automatic 'brain' decides when the PNS gate circuit is to operate.

Unique muting control

A 2-position variable muting control uses electronic switching as well as reed relay switching. This eliminates interstation noise and the popping noise of tuning and detuning.

Complete command with a wide variety of controls

Whether it's for AM, FM or headset output levels, Pioneer provides greater operating precision with three independently operated output level controls. A headset may be used without a following power amplifier. Precision tuning is achieved with the aid of signal strength and tuning meters.

AM section highlights IC's

The entire AM section, following the front end, is a unitized IC. A monolithic IC replaces 84 individual components plus a ceramic filter. By using a differential amp circuit and a balanced mixing circuit, there are better spurious characteristics and special AGC amplification.

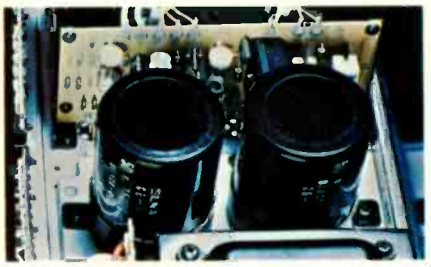
Great specs for great performance

	TX-9100	TX-8100	TX-7100
FM Sensitivity (IHF)	1.5uV	1.8uV	1.9uv
Selectivity	90dB	80dB	60dB
Capture Ratio	1dB	1dB	1dB
S/N Ratio	75dB	70dB	70dB
Image Rejection	110dB	100dB	85dB
Stereo Separation	40dB	40dB	40dB
Distortion (THD)			
Mono	0.2%	0.2%	0.2%
Stereo	0.3%	0.4%	0.4%
Spurious Response	110dB	100dB	100dB

The Amplifiers: SA-9100, SA-8100, SA-7100

Two separate power supplies utilize 30,000 uF total capacitance

You read it right. The power supply in the SA-9100 uses a total capacitance of 30,000 uF. 15,000 uF each for the balanced positive and negative power supplies. This completely eclipses anything now available In integrated amplifiers. This super high capacitance results in an absolutely pure DC voltage supply. There's constant DC voltage regulation regardless



Two 15,000uF power supplies eclipse anything now available in integrated amplifiers.

of line voltage changes and signal input. Even at extremely low frequencies there's stable power output, excellent transient response and minimum distortion — only 0.1% at any frequency between 20-20,000Hz for 60 watts output per channel.

These positive and negative power supplies provide absolute stability in all stages, even in the equalizer amp and proceeding to the control and power amps. Therefore, the signal lines become zero potential to completely eliminate the usual (and annoying) click noise of operating controls and switches.

Stability is increased even further by the differential amplifier used in the first stages of the equalizer and control amplifiers (also the power amp.) 100% DC negative feedback supplies excellent stability and transient response; it also eliminates distortion. To further increase

Interior view. SA-9100

stabilization, special electronic regulator circuits are used. Transient response is also improved with a superb damping factor of 70.

The unique equalizer amplifier

To make certain that extraneous signals do not interfere with the input signal, the equalizer amp is totally enclosed and sealed to shield it against leakage.

There's also extra assurance of precision with special low noise metal film resistors and styrol capacitors. Both are manufactured under continuous computer control to highest laboratory test equipment tolerances: ±1% for resistors; ±2% for capacitors. Until now such precision has been unheard of in hi-fi equipment. Deviation from the ideal RIAA curve is only ±0.2dB.

Since a direct-coupled SEPP complementary circuit is used in the equalizer amplifier, virtually any dynamic phono cartridge can be accommodated without overloading or distortion. For example, with 2.5 mV sensitivity, the overload at 1KHz is an unbelievable 250mV, and 1200mV at 10KHz!

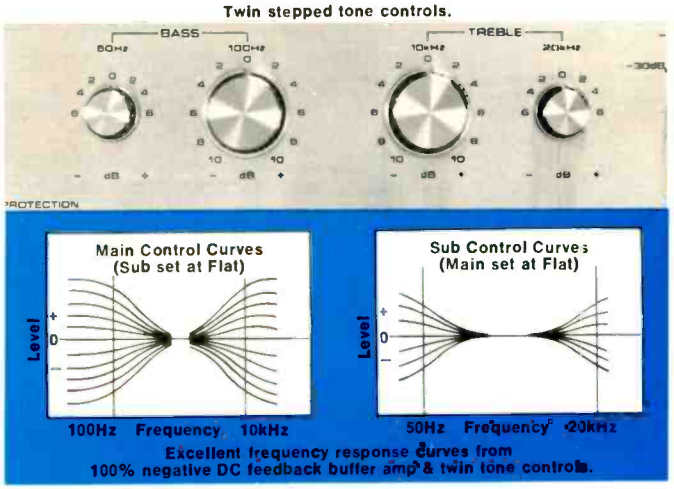
The power amplifier

To sustain the ultra sophistication of the equalizer and control amp sections, the power amp has a direct-coupled pure complementary SEPP circuit, double differential amplifiers and two constant current loads. The combined effect is the achievement of wide power frequency range and excellent transient response. 100% negative DC feedback is supplemented by 66dB dynamic negative feedback for minimum distortion and absolute stability. The pre and power amps can be used independently with a separation switch.

Exclusive direct-coupling in all stages

Until now direct-coupling has been used only with the power amplifier. Pioneer takes it a dramatic step further in the SA-9100 and SA-8100. Direct-coupling in all stages from the equalizer amp to the control amp to the power amp. More effective? Absolutely. It achieves the finest transient response, wider dynamic range, THD and IM distortion of only 0.04% (1 watt). It's an incredible achievement.

Twin stepped tone controls.



Excellent frequency response curves from 100% negative DC feedback buffer amp & twin tone controls.

Level set, volume and loudness contour controls adjust to listening preference

Three controls working together adjust to any degree of loudness. The level set control is the primary volume control. Its maximum loudness setting is 0dB.

Successive settings of −15dB and −30dB result in lower gain. Once the desired volume is obtained, the volume control is used for fine adjustments within the given range. While the loudness contour boosts bass and treble, it may also be used with the level set control. The more advanced the position of the level set control, the lower the effective range of the loudness contour.

The control amplifier: Twin stepped tone controls custom tailor your listening.

Now you can make the most critical bass and treble adjustments with supreme ease. In fact, there are 5,929 tonal combinations to suit your listening room acoustics and to compare or compensate for component frequency response.

On the SA-9100 and SA-8100 four tone controls (two for bass, two for treble) make 2dB (2.5dB with SA-8100) step adjustments for the entire audio spectrum. Working together with the tone controls is a buffer amplifier with 100% negative DC feedback. The main bass control governs ± 10 dB at 100 Hz; the sub-bass, ± 6dB at 50 Hz. The main treble control governs ±10 dB at 10KHz and the sub-treble, ± 6dB at 20 KHz. This, plus the tone defeat control (described in the next paragraph) makes the SA-9100 the most exciting-to-use amplifier that has ever powered any hi-fi system.

New tone defeat switch

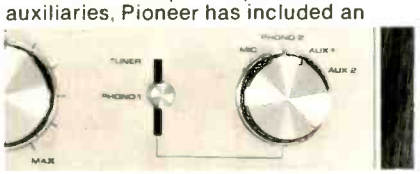
Because of the extremely wide variety (5,929) of frequency adjustments made possible by the twin tone controls, the tone defeat switch adds extra flexibility. Adjusting the tone controls to your satisfaction, you can flip the tone defeat switch. Bass and treble responses instantly become flat. When it is switched off you return to the original tone control settings.

The original and positive speaker protector circuit

Since the signal is fed directly to the speakers because of direct-coupling, an automatic electronic trigger relay system is incorporated into the power amplifier. This protects the speakers against damage from DC leakage which can also cause distortion. It also prevents short circuits in the power transistors.

Maximum convenience for program source selection

While there is a multiple function rotary switch for microphone, phono 2 and two auxiliaries, Pioneer has included an additional convenience. A separate flip type lever control for instant switching between the more widely used tuner and phono 1 and any other single program source. Incidentally, both switches are shielded to protect the input against undesirable extraneous signal pickups.



Convenient program source selection switch & control lever.

Two-way tape duplicating and monitoring

There are two separate flip type switches on the front panel of the SA-9100 for tape-to-tape duplicating and monitoring. Two tape decks can be connected for recording, playback and duplicating in either direction, with simultaneous monitoring.

Level controls for phono 2, aux 2

In order to match the level of various inputs, individual level controls are provided for phono 2 and aux 2.

Speaker B control

This special control helps in the use of two pairs of speaker systems of different efficiencies. There is no sacrifice of damping or distortion when switching from one pair to the other.

Impedance selector for phono 2

An easy-to-use switch allows you to employ any phono cartridge input (25K, 50K, 100K ohms).

Two-position high & low filters

The low filter switch on the SA-9100 and SA-8100 has subsonic (below 8Hz) and 30Hz positions. The high filter switch has 12KHz and 8KHz positions.

Maximum versatility in program sources

	SA-9100	SA-8100	SA-7100
Inputs			
Tape monitor—S/N	2-90dB	2-90dB	2-90dB
Phono—S/N	2-80dB	2-80dB	2-80dB
Auxiliary—S/N	2-90dB	2-90dB	2-90dB
Microphone—S/N	2-70dB	2-70dB	1-70dB
Tuner—S/N	1-90dB	1-90dB	1-90dB
Outputs			
Speakers	3	2	2
Headsets	1	1	1
Tape Rec.	2	2	2

Consistent power for every requirement

	RMS power both channels driven 20-20KHz	RMS @ 8 ohms both channels driven @ 1KHz	RMS @ 4 ohms single channel driven @ 1KHz
SA-9100	60+60 watts	65+65 watts	100+100 watts
SA-8100	40+40 watts	44+44 watts	60+60 watts
SA-7100	20+20 watts	22+22 watts	36+36 watts

This new lineup of Pioneer tuners and amplifiers is unquestionably the most advanced available today. Yet despite this overwhelming sophistication, they're sensibly priced.

See your Pioneer dealer. He'll show you how this series of fine instruments can outperform any units in their price range. All prices include walnut cabinets.
SA-9100—$399.95; SA-8100—$299.95; SA-7100—$199.95.
TX-9100—$299.95; TX-8100—$229.95; TX-7100—$179.95.
While not discussed here, Pioneer is also introducing the SA-5200 stereo amplifier and the TX-6200 stereo tuner for high quality hi-fi on a low budget. Only $119.95 each, with walnut cabinet.

U.S. Pioneer Electronics Corp., 178 Commerce Rd., Carlstadt, New Jersey 07072

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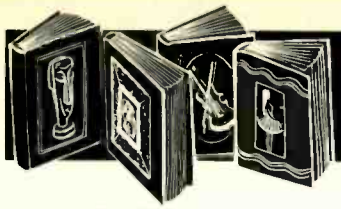

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An ungarnished story of Jolson's life and career. The boy sneaked into his first Broadway theater at 12, lived in a Catholic Boys Home (with Babe Ruth and Bojangles Robinson), worked in burlesque at 14; the man became a legend as one of the greatest entertainers in Broadway history. **No. 332 . . . $8.95**

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For anyone who has felt the impact of Stravinsky's music on his own aesthetic responses, this is a book to treasure. As Hogan writes in his foreword, it is an "act of homage to a transcendent artist who for almost four decades indirectly and impersonally brought aesthetic fulfillment to my life and learning—an experience which then for another decade and a half was crowned by personal friendship with him and his wife." It is not intended as a work of musicology or complete biography, rather a sketchbook, rich in detail and anecdote, by a loving friend with the novelist's eye and ear for character and scene.

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THIS BUSINESS OF MUSIC. Revised & Enlarged Edition, Dec. '71. Sidney Shemel & M. William Krasilovsky. Edited by Paul Ackerman.

Anyone involved or just interested in the music-record-tape industry needs this unique and indispensable reference book. No other single volume contains comparable information, arranged for easy reference and readability, on the complex legal, practical, and procedural problems.

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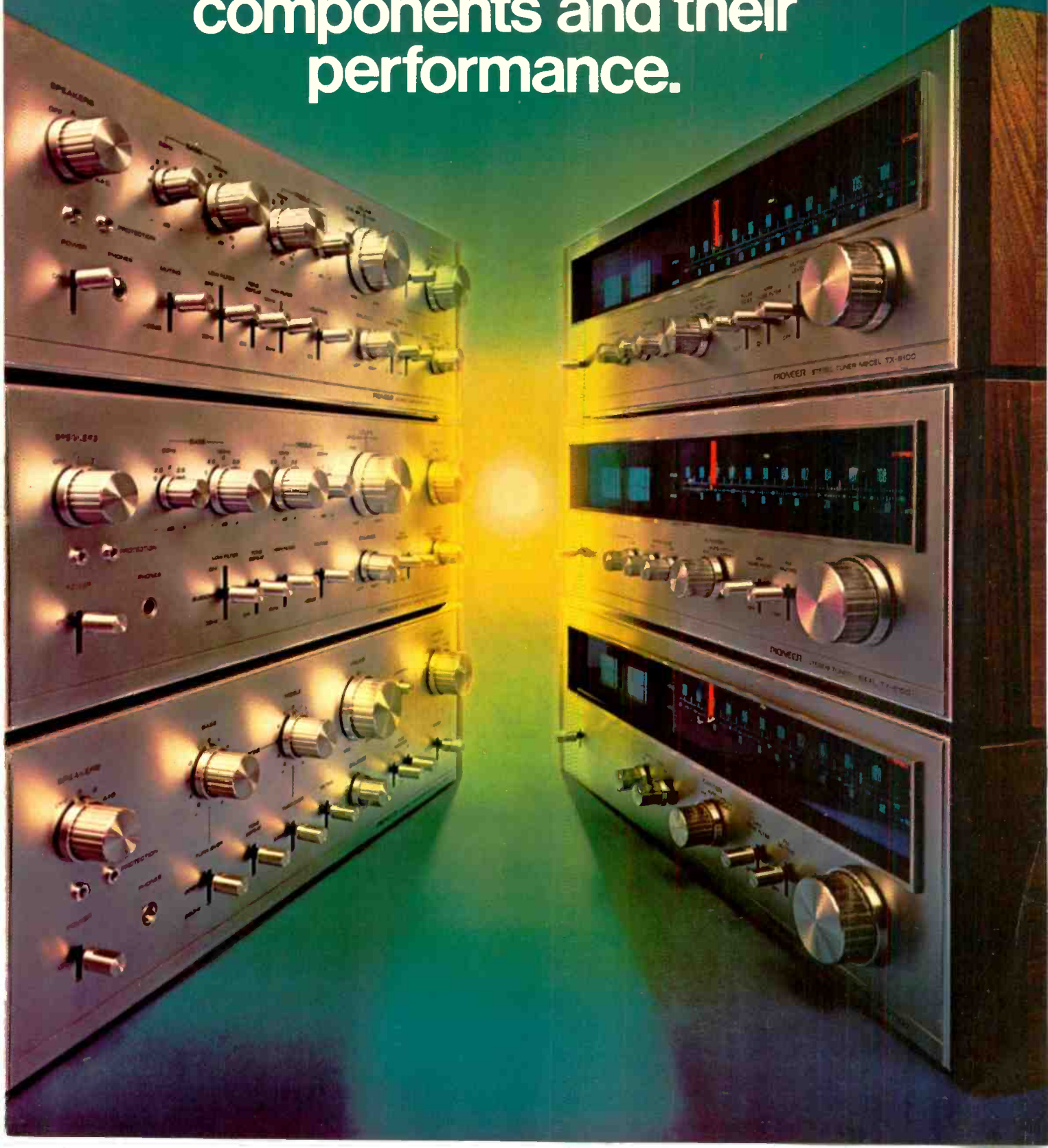

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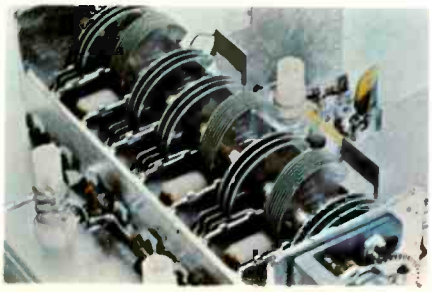
The Tuners: TX-9100, TX-8100, TX-7100

FM front end — an engineering triumph

The height of sophistication, the TX-9100's stabilized, drift-free front enc replaces printed circuit boards with completely metallized construction. The same used in high precision communications equipment.

Employing three dual gate MOS FET's and a buffer circuit in the local oscillator, there's exceptionally high gain with extremely low noise. Two tuned RF stages with a 5-gang variable tuning capacitor contribute to the highest selectivity (90dB) and astonishing FM sensitivity (1.5uV). The exclusive use of a heavy gauge die cast aluminum housing assures uncanny stability.



Exclusive heavy gauge die cast aluminum housing assures uncanny stability.

IF section — the epitome of advanced research

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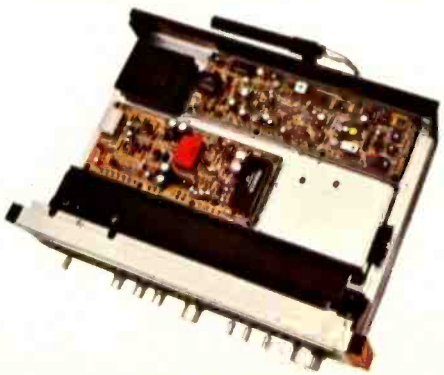

TX-9100 interior view. Chrome plated shielded front end housing and multiplex section.

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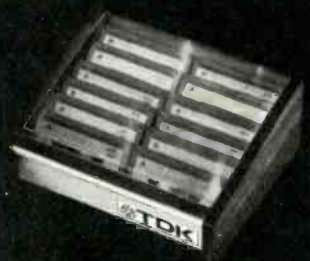

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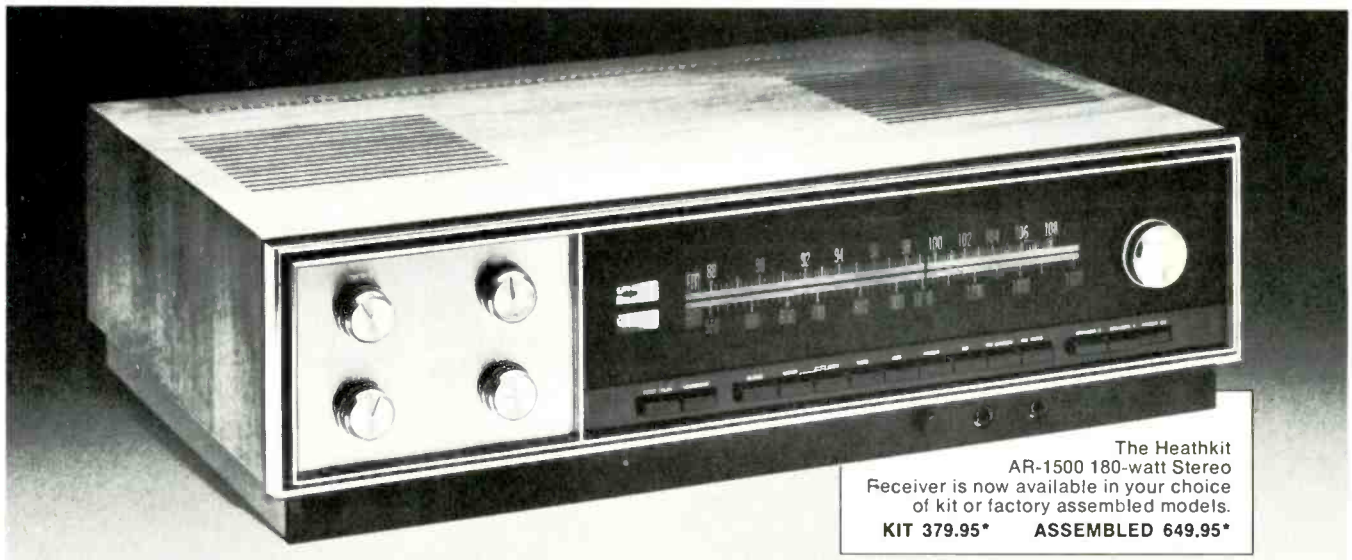
The Heathkit AR-1500 rates



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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***

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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 uV.* **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.* **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 Hz; 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 uV with external input; 300 uV 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 — 18½" W x 5⅛" H x 13⅞" D.

*Rated IHF (Institute of High Fidelity) Standards.
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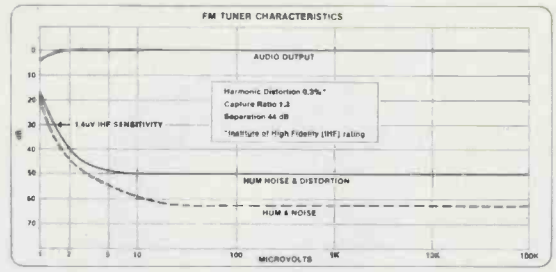

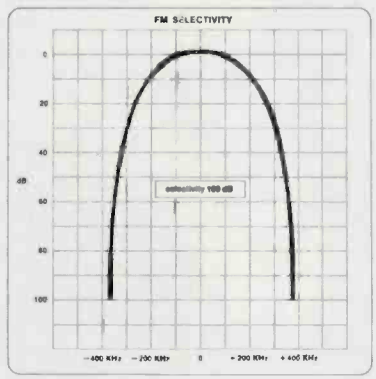

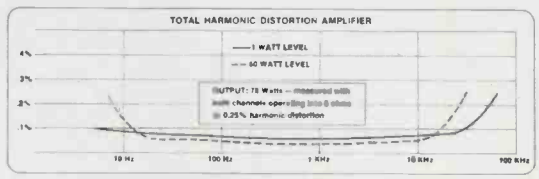

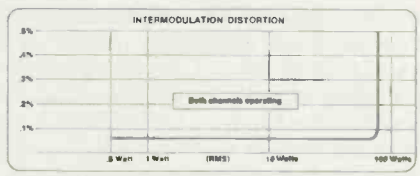

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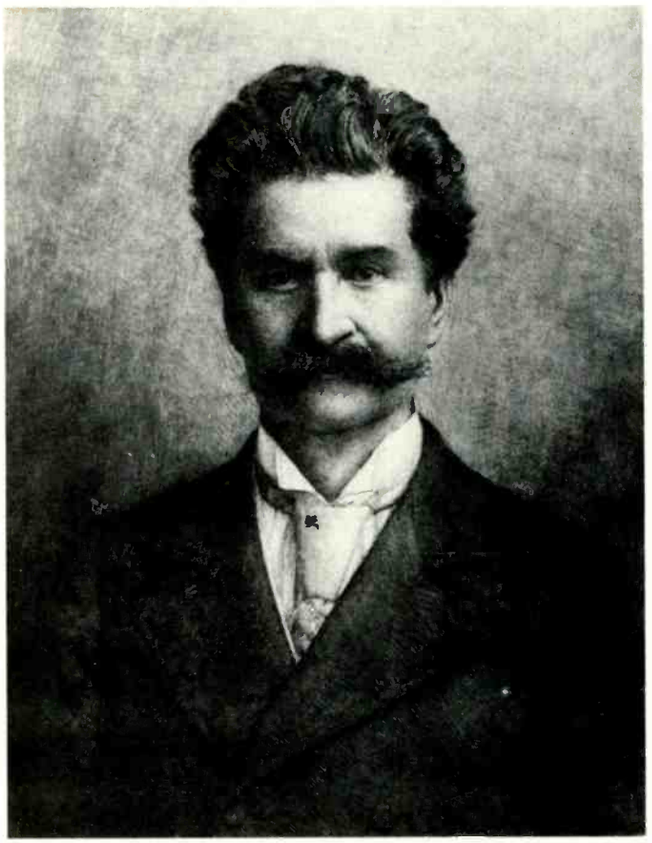
The First-Rate Music of Johann Strauss

A new Fledermaus augments EMI's series of Viennese operettas.

by David Hamilton



HOW INGENIOUS the men who first formulated the central plot device of *Die Fledermaus* (they were, in fact, Meilhac and Halévy, better known to posterity as the librettists of Bizet's *Carmen*), and how fortunate we are that it came into the hands of Johann Strauss, Jr. For a happier concatenation of the mixed-identity clichés basic to so much nineteenth-century operetta (and opera as well) can hardly be imagined, centering on the multiple deceptions arranged by Dr. Falke for Prince Orlofsky's masked ball—and what better than a ball scene fruitfully to engage the gifts of a great dance composer? Strauss never quite matched the success of this work; although *Der Zigeunerbaron* and *Eine Nacht in Venedig* are full of first-rate music (stimulated, too, by the infusion, respectively, of Hungarian and Venetian references), their plots are much less direct, the librettos less well organized, and thus the theatrical totality less rewarding.

Last-act problems are endemic to the genre: after the intrigue has been raveled to maximum complexity at the end of the second act, the only essential dramatic function remaining is the moment of revelation—the rest is padding. Even *Fledermaus* suffers at this point, but there is not a weak number in the score, which reaches an irresistible high point in the second-act finale, with the marvelously unsentimental sentiment of the *Brüderlein* ensemble and its "*Duidu*" coda—surely one of the more endearing hymns ever penned to a grammatical subtlety (and untranslatable into English, which no longer employs a distinction between intimate and formal second-person pronouns).

Fledermaus has now been recorded some eight times in more or less complete form, and Angel's latest version (the third from this company) is thus part of a fairly crowded field. Still surviving in the catalogues, after more than two decades, is the Clemens Krauss mono version (now on Richmond), deservedly regarded as a classic of this literature for its warmth and rhythmic sparkle, and the easy professionalism of its cast: Hilde Gueden's gracious yet pointed Rosalinda, Julius Patzak's elegant Eisenstein, Anton Dermota's mellifluous Alfred, Wilma Lipp's pert Adele. Only the musical numbers were recorded, however, and the absence of dialogue keeps this from competing directly with newer versions; at the bargain price, it remains an indispensable supplement to any of the others.

Two other mono versions long ago vanished: Columbia's Metropolitan Opera recording, using the gaggy Howard Dietz translation (still fun because of Ljuba Welitsch's richly accented Rosalinda and Ormandy's surprisingly alert direction), and the first Angel, a Karajan/Philharmonia production with Schwarzkopf, Gedda, Krebs, Streich, and Kunz. The ladies here were especially good, and neither Karajan nor Gedda proved able on later occasions to recreate the genial relaxation of their work then. Some dialogue was included, and the *Brüderlein* solo was assigned to Gedda (presumably to avoid range problems for Kunz).

Stereo has brought us five more recordings, all with dialogue—and with numerous cast duplications. Boskovsky's cast brings back many old friends: not only Gedda's second Eisenstein, but Walter Berry's third Frank (he also did Falke for London), Renate Holm's second Adele, and Otto Schenk's second Frosch, while Rothenberger can be heard as Adele on the RCA recording. (Other champion repeaters over the years: Kunz has appeared twice as Frosch and once each as Falke and Frank, while Wächter has sung not only Frank and Falke, but also Eisenstein—a tenor role!) Of these stereo versions, two are relatively negligible, although not incompetent. In the earlier Angel stereo set, the two princi-

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Nicolai Gedda—That's Gedda with a "Y"—the Central Element in EMI's Operettas

by Edward Greenfield

NICOLAI GEDDA has long since resigned himself to the fact that outside his native Sweden his name is going to be mispronounced. "Yedda," he enunciates with his characteristically crisp diction, but he does that only on my insistence, and seems to realize that such a pronunciation would regularly be misunderstood or else counted as an affectation. His father's surname is in fact Ustinov ("nothing to do with Peter" Gedda explains) and though he always spoke Russian at home, becoming entirely bilingual, he opted for his mother's family name in his career.

Gedda's fluency in languages lies at the heart of his success, and has done from the start. His background could hardly be more cosmopolitan. His father was a schoolteacher in Russia before the Revolution, who then fought in the "White" Russian army, and finally reached Stockholm as a member of a touring Cossack Choir. Settled there with his Swedish wife, he became a cantor and choirmaster in the Russian Orthodox Church, but for six years when young Nicolai was growing up the family lived in Leipzig where his father held a similar position. So, long before he was ten, Nicolai was as fluent as a native in three languages, and with a musician father he was already far in advance of his years in the art of singing, and playing the organ and piano.

Gedda today is particularly thankful that he had so much early experience singing a capella in the Russian Orthodox Church. "It trained my ear," he says, "when I was not born with perfect pitch." To his three fluent languages he quickly added French ("my favorite language in college") and, as he confesses, became a perfectionist, when from the start he appreciated the importance of meticulously correct pronunciation if an authentic singing style is to be achieved in any language.

Gedda's treble voice broke at sixteen, and for two years he was left with "nothing but a croak." He did his Swedish military service, and then with no prospect of further full-time musical education went into a bank. Luckily one of the bank's customers, who knew of Gedda's singing, suggested that he should enter for the Christine Nilsson Award at the Stockholm Conservatory. He won it, and for two years studied there. In 1952, thanks to the efforts of two of his teachers, he was spectacularly given the tenor lead in the Royal Opera's production of Adolphe Adam's *Postillon de Longjumeau*, with its extraordinarily difficult main aria.

He was a riotous success. So much so that the press assumed he had come from abroad, knowing nothing of him as a local product. It so happened that Elisabeth Schwarzkopf was appearing in Stockholm at the time. Her husband, Walter Legge, in his role of EMI impresario was on the lookout for singers who could work in Russian. He heard Gedda and asked him to audition. Gedda was immediately engaged for the role of Dimitri, the Pretender, in EMI's first recording of Mussorgsky's *Boris Godunov* with Boris Christoff as the Tsar. By the summer of 1952 he had become an international recording artist, having made his professional debut on the stage only that April. Of his headlong ascent he says gratefully, "I didn't have a long way to go to find success. I had luck, and a lack of nerve."

That spectacular "break" was more effectively exploited when Walter Legge not only went on to promote Gedda in a whole series of his own opera recordings,

but did everything he could to mention his name in the right quarters. "Letters would drop into my pigeonhole from La Scala and from all over Germany," Gedda explains, still reflecting his own surprise that success could come so easily. His La Scala debut came in fact only nine months after his first professional appearance.

Already he had started on the long series of records for EMI, which as he suggests—just a little diffidently, characteristically anxious not to claim too much—makes him "maybe the most recorded tenor of all time." His current total of albums is well over the hundred mark, ranging as he says "from oratorio to Robert Stolz." One of his first records—promoted by Walter Legge—was as tenor soloist in Bach's B minor Mass with Karajan conducting and Schwarzkopf among his fellow soloists. After that Karajan was one of his most enthusiastic sponsors, not only on records but in opera houses all over Europe.

Unlike many artists Gedda thoroughly enjoys recording—maybe his "lack of nerve" has something to do with it—but he confesses that he would not enjoy it so much if he had been type-cast in the studio. From the start he has had the widest range of recording repertory—partly a tribute to his command of languages, partly to his vocal technique—and not the least important was his work in operetta. Only rarely has he appeared on stage in operetta—two or three gala performances in Vienna and a comparatively ill-fated production of *Zigeunerbaron* under Leinsdorf at the Met. He does not particularly want to sing operetta on stage, for he feels a different kind of tenor is required, but recording is different. His first round of Strauss operetta recordings had the incomparable vocal team of Schwarzkopf, Kunz, and Loose with Karajan conducting *Fledermaus* and Ackerman conducting *Zigeunerbaron*, *Wiener Blut*, and *Eine Nacht in Venedig*. He also appeared in both of the classic versions of Lehar's *Lustige Witwe* with Schwarzkopf, the second one in stereo completed at the very peak of Walter Legge's career with EMI in the early Sixties.

By then it was a question of re-recording in stereo, and with Walter Legge's departure from EMI in 1964 it was left to the German end of that company, Electrola, to sponsor a series of operetta recordings with Gedda. As he says, these include his own personal favorites among his own records—such sets as Strauss's *Eine Nacht in Venedig* and Lehar's *Zarewitsch*. He also did excerpts from the alternate version of *Lustige Witwe* as a tenor Danilo.

If you ask him which musician colleagues he has enjoyed working with most, he will pause tactfully, and then suggest Victoria de los Angeles as one of the most delightful. It was with her that he made complete recordings of Bizet's *Carmen* and Massenet's *Werther*. Gedda also especially cherishes the memory of working with Beecham (on *Carmen*) and with Klemperer on a whole series of recordings from *Messiah* and the B minor Mass to *Don Giovanni* and *Zauberflöte*. "I felt so good with them," he says. "A singer with a little musicianship was appreciated, and neither of them thought about himself at the expense of the composer. With young conductors it is not the same."

His repertory goes on expanding. Recording this last summer in London, Gedda happily coped with the demands of the hero's role in Berlioz' *Benvenuto Cellini* on the one hand, and the coloratura elaboration of the tenor role of Arnold in Rossini's *Guillaume Tell*. I saw him at work in both opera sessions, and each time he was so much at ease that he acted as well as sang his part quite naturally. As he said to me when the EMI *Tell* was almost completed, "It is incredible what those two chords in your throat can support. I can hardly believe that I can still do the *Tell* recording after all my voice has been through this year—colds and infections and so on, seven *Traviatas* at Covent Garden, the recording of *Cellini* for Philips as well as a Prom performance."

He praises two of his teachers for having coached him in a technique that can stand hard work, together with the necessary globetrotting—his first teacher in Stockholm, the Swedish Wagnerian tenor Martin Oehman, and Mme. Paula Novikova, with whom he had regular lessons in New York over many years until she died some five years ago. "I am never too proud to learn," he says firmly, and he pays tribute to the help he received in his early days from Walter Legge and Karajan, not to mention singing colleagues who on such a project as Strauss's *Capriccio* could set him right on stylistic matters in a work he knew not at all.

Now although he does not take formal lessons, Gedda conscientiously studies new roles, and is always glad to obtain advice from acknowledged experts—he gave the instance of Colin Davis in *Cellini*.

Home for Gedda is now officially Switzerland, where his country house near Lausanne is a haven for as long as he can manage it. But he also finds peace and an opportunity to get down to serious study (whether on new Lieder for his recitals or new operas) when he visits New York. His Central Park West apartment is only a few minutes' walk from Lincoln Center, and he regards that too as home, staying there for as much as four months at a time.

His career at the Met has been long and successful. When I talked to him he was still downcast by the death of the Swedish general manager, Goeran Gentele, for over twenty years a personal friend. Only a few days before the news of the tragic accident in Sardinia, Gedda had received a letter from Gentele confirming an engagement for the latter's own production of Verdi's *Ballo in maschera* in January 1974.

Singing at the Met, Gedda says, is a special joy, and much as he liked singing at the old house, the new theater he counts "acoustically a great success," even finer than the old. He is still surprised and delighted that "from the stage the new Met seems more intimate" despite the increase of size.

His engagements at the Met take up a large proportion of his singing time, but he still pursues a very active recording career. Next summer he will be continuing his association with Philips in the next of Colin Davis' Berlioz series with *Damnation de Faust*, and German Electrola is planning recordings with him of Millocker's *Bettelstudent* and Schumann's long-neglected choral work, *Das Paradies und die Peri*. Gedda also hopes that he will be able to record more operas with Beverly Sills, maybe some Bellini.

"After all, a voice doesn't last forever," he says, but at least it looks as though Gedda's voice by careful husbanding and thorough technique will last longer than most. His heavy commitments over the summer of 1972 were carefully calculated, and though he relishes doing "more demanding parts" like Cellini and Arnold in *Tell*, he will never take on a role—Wagner for example—that might endanger his ability to sing florid music. "I keep it in mind always," he says, "that I want to go on singing Ottavio's *Il mio tesoro* with all the coloratura in place. I have to be careful with the heavy parts, making sure not to exaggerate the middle register." With such thoughtful analysis Gedda confirms all that one has registered from his actual singing. Here is a very rare animal indeed—a thinking tenor.

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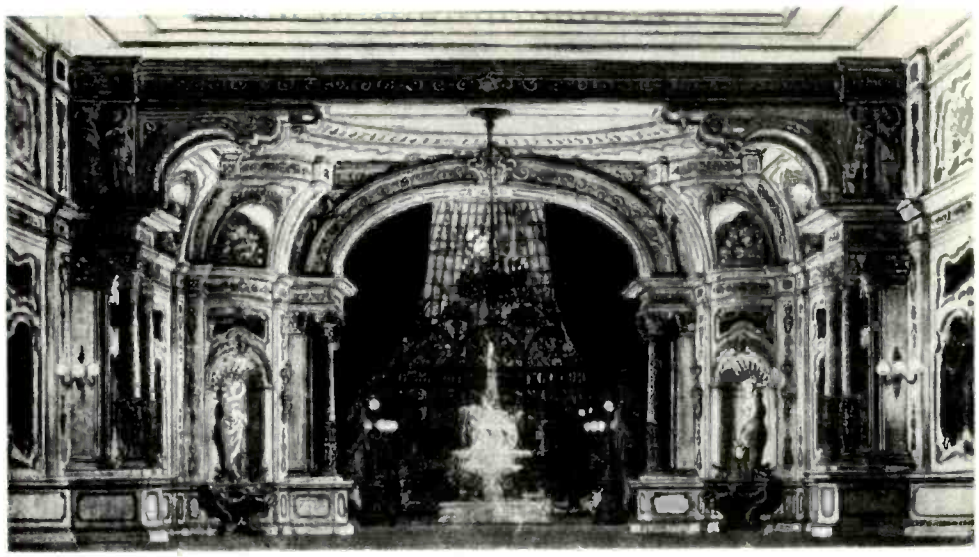


Alfred Moser's original stage design for *Die Fledermaus* at the Theater an der Wien, Vienna, 1874.

pal parts were weakly cast, and Otto Ackermann failed to inspire much brio in his otherwise capable forces. And Robert Stolz's mannered direction combined with Rudolf Schock's coarse Eisenstein removes the Everest set from competition, despite Wilma Lipp's very professional Rosalinda.

The RCA recording had a nice theatrical flavor, and bespoke some worthwhile attention to detail, but the casting was marred by several obeisances to the American market; after reading in the liner notes about the text-critical efforts undertaken before the sessions, one was staggered to hear the *Brüderlein* solo transposed down a tone to accommodate George London, with the ensemble repetition remaining in the original key, joined by an ugly harmonic *non sequitur*! What price authenticity?

That leaves Karajan's second recording, on London, as the only really admissible competition for the new Angel. First issued with a rather distracting "gala sequence" featuring London stars, it is now also available in a two-disc "un-gala" version. By comparison with the conductor's earlier set, this one has always struck me as a bit overblown and grand-operatic. The cast was good, although short of Krauss's level (even Gueden failed to live up to her earlier technical standard, although she remained quite charming); despite these reservations it still seems a very professional and atmospheric job, quite splendidly recorded.

Boskovsky achieves a lighter touch, and he certainly knows how the music ought to go—doubtless he played in the fiddle section of the VPO for one or another of the earlier recordings! Although the Vienna Symphony is not quite as expert as the Philharmonic (a deficiency which shows up primarily in the overture), its playing has plenty of sparkle, and the wind staccatos come out with a pleasant "chiffy" edge. I like, too, the alert percussion work; in Strauss, these instruments do not merely make accents, but often participate in the orchestra as a kind of additional, if unpitched, voice (the most striking demonstration of this function can be heard in the old Klemperer or Furtwängler recordings of the *Kaiserwalzer*).

This cast, alas, is a less happy story. Gedda's voice seems in rough estate, especially in the first act, where he sounds nasally brassy; the engineers are clearly using two mikes and the controls to match his volume level with Rothenberger's and the result is anything but a true blend. The lady isn't in her best condition, either, with uneven coloratura and a shaky top range; on records, not all the charm in the world can compensate for this.

In fact, vocal honors go to the Orlofsky: Brigitte Fassbaender uses a brassy, chesty sound that makes the travesty plausible, and phrases with fine line. Also good is the Alfred of Dallapozza—a *tenorino* with a sweet sound and a flair for humor. Happily, Fischer-Dieskau is fairly un-Dieskauish as Falke, but does not bring real sweetness of tone to his big solo. The others are acceptable, and I would be inclined to regard this set as an acceptable alternative to the Karajan, in a more intimate style, were it somewhat better recorded.

One distracting feature of the sound is the dialogue, spoken very close, right into the mike and unnaturally loud in relation to the music. More importantly, though, the wash of resonance obscures detail and muddles the lower registers in tutti passages. I'm sorry to keep hammering on this point month after month, but it is musically significant, and if London's engineers could solve the problem twelve years ago, we should be able to expect equally good results today.

Some textual points: Most of the usual small cuts are made (I don't think any recording is absolutely complete), plus a "new" one—the little dialogue passage in the middle of the chorus that opens Act II. The original ballet music is omitted (only Karajan/London gives it all), and nothing is inserted in its place, although Falke's role is beefed up by the interpolation of a solo from *Waldmeister*. The scene for Frosch, the jailer (all spoken), is kept down to a minimum, which will doubtless please American listeners unfamiliar with the finer points of Viennese humor.

This *Fledermaus* is actually part of a growing series of operetta recordings, with Gedda as the fixed central element, that has been accumulating from the German branch of EMI; however, none of the others has been released on a domestic label, although all can be obtained on an import basis. Among these are two other Strauss works, and they are worth consideration in the present context (I hope to report on the Lehár, Kálmán, and Oscar Straus works in a future issue).

Zigeunerbaron certainly reaps tangible musical re-

wards from its gypsy setting, but at the same time the book suffers from a heavy infusion of Hungarian lore and customs that may once have had a function vis-à-vis the Austro-Hungarian Dual Monarchy but is today a dead letter to most of us: Count Carnero, the Chairman of the Public Morals Commission, with his prating about the proper thing, seems less a figure of fun than a bore. All the same, the tunes are ravishing, the ensembles well built, and the orchestration especially delicious, even for Strauss.

Because the score runs too long for two discs, especially when dialogue is included, *Zigeunerbaron* has never been recorded in really complete form; some cuts are standard, others vary from one recording to the next (the new EMI includes a short number for Arsena in the last act that is probably a "first recording"). Three mono versions are no longer available: Krauss/London (sharing most of the virtues of the corresponding *Fledermaus*, with Patzak's Barinkay an especial delight), Ackermann/Angel (which boasted the Schwarzkopf/Gedda/Kunz team and their customary skill and polish), and a Vanguard that I never heard.

Current stereo competition includes a colorless if competent presentation by Hollreiser on Angel (Gueden's small-scale Saffi providing at least a modicum of rhythmic verve) and Stolz's Everest set, with the rough sound of Rudolf Schock in the title role and a thin-sounding if authentically Hungarian soprano (Erzsebet Hazy) as Saffi. Connoisseurs of German singing may be intrigued to note the presence of Hilde Konetzni and Karl Schmitt-Walter in small parts, but unfortunately Stolz tampers with the scoring and rushes pell-mell through too many numbers, including the lovely duet "*Wer uns getraut.*"

It would be nice to report that the new EMI is good enough to untie that Gordian knot—but it isn't. Perhaps this was one of those sessions where things just don't go right; whatever the reason, I've rarely heard an operetta recording so lacking in polish and ensemble. Everyone is working hard, but not carefully, and the result is often downright unpleasant to hear.

Grace Bumbry brings a certain earthy fervor to the role of Saffi, but she can't sing enough of the music really comfortably to justify this unusual casting; her upper register is so effortfully produced, her interpolated high Cs in the second finale so very flat, that one can only wonder. "Why?" Kurt Böhme gives us a crude, stentorian reading of the pig farmer Zsupán, as if hog-calling had gone to his head—but this part can be genuinely funny, rather than coarsely so, as Kunz has shown. Gedda too seems in rough voice, singing choppily instead of smoothly, in depressing contrast to his work in the old Ackermann recording. Rita Streich's Arsena is more to the point stylistically, although her upper range is now perilously thin. Another sign of advancing years comes with Prey's entry—for Ackermann he sang "*Her die Hand*" in the original G minor, but now it's down to F (Böhme is also accommodated by some transpositions).

As I've remarked on other occasions, this music ostensibly needs the same care as more serious literature for all of its virtues to be made apparent; if *Fledermaus* rates the Vienna Symphony and Willi Boskovsky, why not *Zigeunerbaron*? These elaborate finales must really sound, with all the component elements balanced and precisely together—it isn't enough for everybody to pitch in with enthusiasm and make a loud noise. For a really good *Zigeunerbaron*, I'm afraid you will have to wait—or haunt the second-hand shops.

Happily, the EMI *Nacht in Venedig* turns out to be a more relaxed affair altogether, perhaps because it's a less ambitious work. The libretto has been fiddled with ever since the premiere (the mistaken-identity bit is here driven to almost unfathomable complexity, with double-substitutions among far too many principals), and the present recording, based on the 1931 Korngold/Marischka recension, goes still further, virtually creating parts for Prey and Rothenberger by interpolating numbers from *Casanova* and *Carnaval in Rom*. Only one of these modifications is really objectionable: the substitution of a Prey solo for the quiet chorus that originally (and quite effectively) ended the first act. For the rest, one might as well take it as it comes—lovely Strauss tunes with an Italian accent, if less of the textural variety that gives the other two scores their distinction.

Gedda is in rather good voice here, singing sweetly and dispensing high notes when necessary, and the ladies are all presentable (granting Streich's upper-register problems). Cesare Curzi is a flavorful Caramello, if hardly the creamy voice one would like to hear in the "*Komm' in die Gondel*" song (on the old Angel mono set, Gedda appropriated this for himself), and Prey sings his interpolations with smooth warm tone. There is no current competition for this recording, and although I will not part with the old Schwarzkopf/Gedda/Kunz set, this rather less polished affair does give you most of the music in an amiable, pleasantly theatrical presentation. (Non-German-speakers should note that the EMI sets do not include librettos, let alone translations.)

STRAUSS: Die Fledermaus.

Rosalinda	Anneliese Rothenberger (s)
Adele	Renate Holm (s)
Prince Orlofsky	Brigitte Fassbaender (ms)
Eisenstein	Nicolai Gedda (t)
Alfred	Adolf Dallapozza (t)
Dr. Blind	Jürgen Forster (t)
Dr. Falke	Dietrich Fischer-Dieskau (b)
Frank	Walter Berry (b)

Chorus of the Vienna Volksoper; Vienna Symphony Orchestra, Willi Boskovsky, cond. Angel SBLX 3790, $12.96 (two discs).

Selected comparisons:

Krauss	Rich. 62006
Ackermann	Ang. 3581
Karajan	Lon. 1319
Stolz	Ev./Cet. 463/2
Danon	RCA 7029

STRAUSS: Der Zigeunerbaron.

Saffi	Grace Bumbry (ms)
Arsena	Rita Streich (s)
Czipra	Biserka Cvejic (ms)
Mirabella	Gisela Litz (a)
Sándor Barinkay	Nicolai Gedda (t)
Ottokar	Willi Brokmeier (t)
Count Peter Homonay	Hermann Prey (b)
Count Carnero	Wolfgang Anheisser (b)
Kalman Zsupan	Kurt Bohme (bs)

Bavarian State Opera Chorus and Orchestra, Franz Allers, cond. EMI Odeon C 163-28 354/5, $11.96 (two discs).

STRAUSS: (arr. Korngold and Marischka): Eine Nacht in Venedig.

Constantia	Anneliese Rothenberger (s)
Annina	Rita Streich (s)
Ciboletta	Christine Görner (s)
Agricola	Gisela Litz (a)
Barbara	Marjorie Heisterman (a)
Duke of Urbino	Nicolai Gedda (t)
Caramello	Cesare Curzi (t)
Pappacoda	Hans Günther Grimm (b)
Enrico Piselli	Hermann Prey (b)

Bavarian Radio Chorus; Graunke Symphony Orchestra, Franz Allers, cond. EMI Odeon SME 81051/2, $11.96 (two discs).

The Surprising Shostakovich

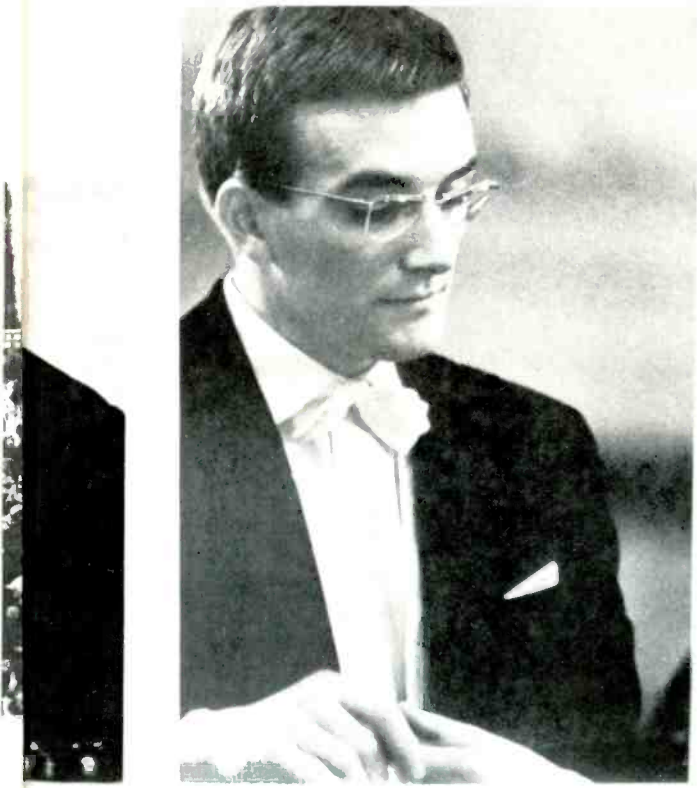
Two recordings of his gleeful new Fifteenth Symphony lead to a name-that-tune game.

by Royal S. Brown

Eugene Ormandy and Dmitri Shostakovich discussed the latter's composition during his visit to the United States in 1959.

ONE WOULD THINK that, after years of expecting the unexpected from Shostakovich, we would be at the point of no longer being surprised by the Russian composer's surprises. Yet how can one not be jolted when, after the stark morbidity of the Fourteenth Symphony, itself a surprise but also one of the composer's indisputable masterpieces, along comes a symphony gleefully quoting from Rossini's *William Tell* Overture in the first movement and more solemnly incorporating Wagner in the last? How can one not be confused when, after what seems like a return to the nose-thumbing sarcasm of the Ninth Symphony in the first movement, Shostakovich proceeds with a totally serious second movement that offers little more than a series of threadbare recitatives? For example, a trombone solo accompanied only by the most banal of oom-pah-pahs in the tuba and double basses effectively vulgarizes a lovely melody previously introduced in flute duet? And to add to the general illogic, there is an airy but acerbic third movement that finishes almost before it gets started, not to mention a fourth movement that rises to a heroic climax reminiscent of the Seventh Symphony and then fades away in what is little more than a percussion cadenza over a sustained string chord that goes on for some forty measures.

As might be expected from all this, Shostakovich's Fifteenth has elicited an almost incredibly broad range of critical opinion everywhere it has been heard—except in Russia, where it was premiered on January 8, 1972 (after having been postponed a month because of Shostakovich's ill health), and where it was received with surprising warmth by both the press and no less a figure than Tikhon Khrennikov, the head of the power-wielding Soviet composers' union. On the other hand, critical opinion in the United States after Ormandy premiered the work this past September and October varied from the vituperative—the *New York Times* critic did not fail to haul out his usual stock of anti-Shostakovich clichés, while the Philadelphia *Bulletin* critic wondered whether the work might not be the product of a "gifted maniac"—to the glowing, as in Andrew Porter's perceptive account of the work in the *New Yorker*. As might also be expected, many attempts were made to figure out just what Shostakovich was trying to do. In a note on the jacket of the RCA recording, Ormandy indicates that the annotations for the Soviet disc state that Shostakovich was trying to depict a toy shop in the first movement, a fact that is also mentioned in the program notes for the Russian premiere. I would personally tend to be suspicious of this type of statement, however, since in the past such ideas have sometimes been devised, either by Shostakovich or by the Russian critics, as post-facto "programs" whose primary justification is to satisfy the generally limited imaginations of Soviet music analysts. It seems to me that this "collage" technique used by Shostakovich results first of all from a kind of stream-of-consciousness technique that is hardly unique to the Fifteenth Symphony. Listen to the opening bars of the Sixth Symphony's finale, for example, and you will hear what is practically an inversion of the *William Tell* theme—and later on in the same movement Shostakovich directly lifts a few bars from Mozart's Fortieth Symphony. Throughout his career, Shostakovich has also quoted himself liberally, particularly in his Eighth Quartet, and he continues to do so in the Fifteenth Symphony, which offers near quotes from the Second, Fourth, Seventh and Eighth Symphonies, similar patterns from many other works, especially the First Cello Concerto (at the beginning of the first movement), and any number of stylistic tics that almost reach the point of self-parody. All these elements, and many more, seem to grow naturally from



Maxim Shostakovich—another of his recordings of his father's symphonies is now available in the U.S.

the interior, rather than the exterior, of the work—the opening rhythm of the *William Tell* theme, for instance, is announced by a nonmelodic rhythmic figure, used constantly by Shostakovich in his various works, in the horns immediately preceding the Rossini quote. And the presence of the Wagner "Fate" motif from *Die Walküre* and *Götterdämmerung* in the finale seems to have suggested another Wagner motif—the first three notes from the *Tristan* prelude—which, instead of leading into the opulent chord one expects, introduces a calm, rhapsodic theme that totally changes the mood of the movement. In the second movement, we find at several points an incongruous, completely un-Shostakovian chordal progression (which returns at the end of the last movement, as do other motifs) that brought the opening of Debussy's *Jeux* to one critic's mind. There is even a point toward the end of the symphony where I feel that Shostakovich must have had the "*Wir arme Leut'*" motif from Berg's *Wozzeck* in the back of his mind. See what happens when you start quoting? All in all, one gets the impression of a heightened musical consciousness following a somewhat cubistic course that alternately embraces the whole of a musical climate to which it is attuned and plunges back into its own personal history. This is not the first symphony in which Shostakovich turns out to be somewhat of a Slavic Charles Ives.

Maxim Shostakovich and Eugene Ormandy offer two widely differing approaches to this symphony. Maxim takes the music pretty much as it comes, playing up the brashness and sarcasm of the first movement and hitting the climaxes of the last for all they are worth. His interpretation effectively communicates the full meaning of the work's many changes in direction, and he quite skillfully pits these contrasts against one another in a well-controlled performance whose essence indeed lies in the sum of its many parts. Ormandy's concept of the work, on the other hand, is almost mystical—keeping in mind the "Fate" motif that opens the last movement and the basic seriousness that takes over once the first movement has passed, Ormandy imparts this feeling (well in keeping with the orientation of Shostakovich's recent works) to every note of the symphony, producing a general atmosphere of understatement and unity not to be found in the Russian rendition. There are moments when Ormandy's manner has its drawbacks, such as at the end of the second movement, where the fortissimo open-fifths in the bassoons intended to jolt the listener out of the second movement and into the third (which follows without a pause) simply disappear in what can be no more than a mezzo-forte. Otherwise, Ormandy's almost philosophical sculpturing of the piece offers both a valid and valuable alternative.

Interestingly enough, both conductors seem to have acquired engineering approaches appropriate to their interpretations, although Ormandy, I am afraid, has been somewhat scuttled by RCA's policy of not releasing stereo-only alternatives to their Quadradiscs; just for starters, this seems to be responsible for the inexcusable breaking up of the second movement over the two sides of the RCA release. On the Melodiya/Angel disc, the woodwinds in particular get a bright, clean sound that greatly enhances the concertante flavor of the symphony, especially in the first movement. In the RCA recording, the woodwinds generally sound as if they were being played behind a closed door, which is due, I feel, to the fact that the overtones are swallowed up both by the quadraphonic "ambience" one has to hear simultaneously with the two front channels if one has stereo only (which I imagine is the case with 99.99 per cent of our readers) and by the superfluous disc noise made inevitable by the extremely low recording level.

On the other hand, RCA offers a much deeper sound that is particularly effective at those moments (rare in this basically chamberlike work) when the full orchestra is playing—thus, the climax to the passacaglia in the fourth movement has a sonorous, rich, almost organlike quality on the Ormandy disc, whereas Maxim Shostakovich, as he reaches the high point, brings out the brasses in a Slavic style totally opposed to the Ormandy aesthetic, resulting in some unpleasant shrillness. Both releases suffer from excessive reverberation—at one point in the first movement, where the strings become involved in a polyrhythmic canonic effect reminiscent of the Second Symphony, the Melodiya/Angel release makes it sound as if an electronic echo effect were called for. The result is curiously effective but hardly idiomatic. RCA, on the other hand, obviously had quadraphony on the brain, and the added reverberation seems particularly inappropriate to the work, especially when incompatibly crammed into the two channels the vast majority of listeners will hear. [For an evaluation of the quadraphonic version, see four-channel reviews, page 108.]

SHOSTAKOVICH: Symphony No. 15, Op. 141. Moscow Radio and Television Symphony Orchestra, Maxim Shostakovich, cond. Melodiya/Angel SR 40213, $5.98.
SHOSTAKOVICH: Symphony No. 15, Op. 141. Philadelphia Orchestra, Eugene Ormandy, cond. RCA Red Seal Quadradisc ARD1 0014, $5.98.

Mercury reissues six Kubelik/Chicago Symphony discs.

When Mono Reached Its Sonic Best

by Philip Hart

THE SIX RECORDS in these two boxes provide valuable historical documentation of the collaboration between an important conductor, a great orchestra, and a truly creative team of recording producers. Let it be said at the outset that these records, containing orchestral performances of high quality, offer an acoustic ambience of a very special sort, despite the fact that they do not enjoy the benefit of stereo sound. In their way they represent a landmark in the recording of the symphony orchestra that can still be listened to with great satisfaction. In a larger context, moreover, they demonstrate one of the ways in which the electronic recording of fine music can become an art of a very special sort.

The brief and stormy career of Rafael Kubelik with the Chicago Symphony Orchestra from 1950 to 1953 is still remembered for its intense partisan hostility. When he came to Chicago, the thirty-six-year-old Kubelik had impressive credentials: the son of a great violinist for whom he had served in his teens as piano accompanist on his last tour of the U.S., highly regarded work with the Czech Philharmonic Orchestra before and after World War II, and a promising engagement with the BBC which was interrupted by his move to Chicago. Since 1953, moreover, Kubelik has fulfilled that promise in a number of European posts and guest engagements here (including a return to Chicago) and abroad, and has now again accepted a major post in this country as the first music director of the Metropolitan Opera. To many, his post-Chicago success has raised questions as to the legitimacy of the attacks leveled at him by the Chicago press during his tenure there.

The Orchestral Association engaged Kubelik toward the end of a stormy interval following the death of Frederick Stock in 1942 that ended only with Fritz Reiner's assumption of the musical direction in 1953. When Stock died, the Chicago Symphony Orchestra had had but two musical directors—Theodore Thomas from 1891 to 1905 and Stock thereafter. Both had been firmly rooted in the German symphonic tradition, had built the orchestra in a Central European style, and had devoted their entire efforts solely to the Chicago orchestra. Stock's successor, Désiré Defauw, met the Association trustees' requirements as a resident conductor, but he lacked major stature as a conductor and stylistic affinity for the tradition of Thomas and Stock. He was followed by Artur Rodzinski, a first-rate conductor recently discharged by the New York Philharmonic in a dispute with the board and manager. Rodzinski shortly came into similar conflict with the Chicago trustees over a number of issues, most intensely over his desire to use the orchestra as a basis for reviving Chicago's then-dormant opera, a project close to the heart of certain major critics. The trustees' firing of Rodzinski in his first year in Chicago greatly aggravated the hostility of the press which harbored a longing for the kind of "father figure" that Stock represented as a dominant leader in the city's musical life. The situation was further exacerbated by an effort to engage Wilhelm Furtwängler as the orchestra's director; that conductor withdrew as soon as a hue and cry was raised over his alleged Nazi associations. Two seasons of guest conductors ensued, but the fundamental conflict between the press and trustees raged unabated, so ferociously that, in retrospect, virtually no choice by the trustees of a new musical director could have survived.

Rafael Kubelik during his Chicago Symphony days.

In these years, and during Kubelik's tenure, the most influential and widely read critics went far beyond the limits of journalism or legitimate criticism in attempting to effect policy changes by the trustees and management. To a large degree, therefore, Kubelik was appraised not on his own merits or shortcomings, but on the basis of implications, and explicitly as the chosen instrument of the Orchestral Association. Thus, the audiences attending the Friday afternoon concerts already had read devastating attacks on the previous night's performance. This continued week after week for three seasons, a crushing experience for conductor and orchestra alike. Recordings are, of course, only samples of the work of a resident music director—though they should represent his best work—but there is ample evidence here, as there was when these records were first released, that the Chicago Symphony Orchestra under Kubelik was capable of first-rate performances of a varied repertory.

It must also be noted that, during the interim between Defauw and Reiner, the personnel of the Chicago Symphony Orchestra underwent substantial improvement in quality and quantity. The city had long enjoyed a music

profession of high quality, with a strong emphasis on Austro-German and Czech musical traditions. (On his arrival, Kubelik found a number of first- and second-generation Czechs in the roster of the orchestra.) Beginning with Rodzinski, and continuing through the guest-conducted seasons as well as the Kubelik years, the orchestra was strengthened impressively both by local players and by importation. Such principal players as the fabulous trumpeter Adolph Herseth, Philip Farkas on French horn, Arnold Jacobs on tuba, Leonard Sharrow on bassoon, and Bert Gaskins on piccolo were already well established in the orchestra when Reiner took over. He naturally molded the orchestra in his own unique way, as has Solti more recently, but the quality of a great orchestra is already evident in the Kubelik recordings.

Kubelik was attacked both for his inexperience and for his innovative programming. In his defense it may now be argued that, in his late thirties, he had certainly as much experience as many who have since taken over American orchestras; however, in accepting a heavy schedule of work, he submitted himself to more extensive exposure than the younger breed of conductors do today. Chicago had become accustomed to the conservative programming of Stock, whose adventuresome days were long since past, and the audience and critics reacted adversely to his programming of the then novel music of Bartók and Hindemith and to the still novel music of Schoenberg. There was also some complaint over his rather strong emphasis on Czech music—Janáček as well as Dvořák and Smetana. Bartók's *Music for Strings, Percussion, and Celesta* and Hindemith's *Symphonic Metamorphoses*, included in these releases, were considerably more innovative then than they are today; I would have preferred to have Schoenberg's Five Pieces for Orchestra, a fine performance, in this set instead of two Tchaikovsky symphonies. Similarly, I would have liked the complete *Má Vlast* instead of only two excerpts, for this Kubelik version has qualities of rhythmic vitality and musical force that I have found somewhat less evident in his two subsequent recordings of this Smetana cycle. Another important performance not included here is that of Mozart's Symphony No. 38 in C, K. 334, as impressive a reading as that of the *Prague*.

When this recording of the *Pictures at an Exhibition* first reached the market in 1951, it was recognized not only as a superb performance but also as an extraordinary advance in the art of recording the symphony orchestra. There have been subsequent records of this standard orchestral showpiece with greater sonic impact, thanks largely to quite different recording techniques, but purely as orchestral sound, this record still casts a strong spell. The production credits for processing this new release list the personnel involved in their most recent transfer but fail to give credit to the even more important and truly ground-breaking contribution of the original producer David Hall and recording engineer Robert Fine, who were responsible for the original recording technique.

When the history of recording serious music is updated, the scheme orginally devised by Hall and Fine for the first "Olympian Series" records by the Chicago orchestra (and later used in Minneapolis and Detroit) will undoubtedly receive proper recognition. Using but one microphone, suspended high over and sometimes in back of the conductor, the performances were recorded on wide-track tape with high-quality equipment. The records were made in Orchestra Hall, a site since abandoned as unsuitable for modern recording, but at that time offering a congenial ambience for orchestral recorded sound. This system, using but one microphone, left to the conductor—working with the recording personnel—the final decision as to orchestral balance and over-all sound, a method quite different from the multichannel techniques that were later developed and that allowed the producer and engineers much latitude in achieving balance in the final product. It was thus possible for Kubelik, the individual responsible for artistic effect, to exercise maximum control. If this system resulted in recordings that sometimes slighted orchestral detail or occasional solo projection, this shortcoming parallels the actual experience of the listener at a "live" concert, who never hears every orchestral nuance with the same emphasis or specificity.

In this respect these records exemplify a quite different philosophy of sound reproduction from that heard on most orchestral records today. Despite promotional claims that one technique or another produces the "real" sound of the orchestra, any method represents at worst a compromise and at best an amalgam of musical performance and electronic technique. The most successful achievements occur when the combination produces a truly musical effect—not necessarily an exact concert-hall experience—that does justice to the music in the listener's own living room. In this the Chicago Symphony Orchestra recordings from 1951 through 1953, with their single aural perspective of the orchestra, represent an occasion on which the recording of the symphony orchestra reached true artistry. The effect is quite different from—and neither superior nor inferior to—subsequently developed stereo and multichannel techniques which seek to lay bare the full panoply of the orchestra, often from a variety of perspectives or from no fixed perspectives at all.

As a documentation of the best results of this monaural recording technique, as well as a memento of the best of Kubelik's work with the Chicago Symphony Orchestra, these reissues make a great contribution. Though I have had to compare them with well-worn discs from the 1950s, it seems to me that the sound is brighter on the new records, tape hiss considerably less apparent, and the bass somewhat stronger and with better "bite."

With Kubelik coming to the Metropolitan Opera and with the international acclaim now heaped on the Chicago Symphony Orchestra under Solti, there should be considerable interest in these remarkable examples of the recording art. For, considering all elements, these records will long remain notable demonstrations of how performance and electronics can be wedded to produce a very special kind of art.

R **CHICAGO SYMPHONY ORCHESTRA:** The Kubelik Legacy. Chicago Symphony Orchestra, Rafael Kubelik, cond. Mercury MG 3-4500 and MG 3-4501, $11.96 each set (three discs; mono only).

Vol. I: **MUSSORGSKY-RAVEL:** Pictures at an Exhibition. **TCHAIKOVSKY:** Symphony No. 6, in B minor, Op. 74 (*Pathetique*). **MOZART:** Symphony No. 38, in D, K. 504 (*Prague*). **SMETANA:** The Moldau; From Bohemia's Meadows and Forests. Vol. II: **TCHAIKOVSKY:** Symphony No. 4, in F minor, Op. 36. **DVOŘÁK:** Symphony No. 5, in E minor, Op. 95 (*From the New World*). **HINDEMITH:** Symphonic Metamorphoses of Themes by Weber. **BARTÓK:** Music for Strings, Percussion and Celesta.

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B **BEETHOVEN:** Sonatas for Cello and Piano. Pierre Fournier, cello; Artur Schnabel, piano. Seraphim IB 6075, $5.96 (two discs, mono only).

No. 1, in F, Op. 5, No. 1; No. 2, in G minor, Op. 5, No. 2; No. 3, in A, Op. 69; No. 4, in C, Op. 102, No. 1; No. 5, in D, Op. 102, No. 2.

B R **BRAHMS:** Sonatas for Cello and Piano: No. 1, in E minor, Op. 38; No. 2, in F, Op. 99. Pierre Fournier, cello; Wilhelm Backhaus, piano. Turnabout TVS 34461, $2.98 (rechanneled stereo).

Selected comparison:
Fournier/Firkusny — DGG 139119

Fournier is still active and has, in fact, re-recorded these sublime works with other keyboard collaborators—the Brahms with Firkusny, the Beethoven twice with Kempff and, to lesser effect, with Gulda. The present versions, though, are anything but uninteresting, sonically outmoded duplications. Here is incomparable proof of the piano's crucial importance in what are, after all, bona fide duos. I have always had an axe to grind with some—indeed *most*—string players who persist in playing the chamber music game known as "shoosh the piano player." Critics too have often been guilty of dismissing a sonata partner with a cursory, one line "so and so was the considerate accompanist." Considerate of whom? Somebody's misplaced megalomania perhaps, but certainly not the music. Take the works under discussion, for instance. Beethoven composed his two Op. 5 Sonatas to feature himself at the keyboard (he was the most brilliant pianist of the day). Even when deafness precluded his further participation as an executant, his later *oeuvre* maintains the bias for his own instrument. Brahms—also a pianist—had much the same attitude. Legend has it that he was playing his Op. 99 with a rather inferior cellist and was not being terribly considerate. His hapless partner finally turned to the master with an irate "I can't hear myself." "Lucky for you!" was Brahms's acerbic retort.

There is a little of Brahms's outlook in Schnabel. The cards were a bit unevenly stacked. Fournier in 1948 was a budding young virtuoso while Schnabel, with but four years of life remaining, was already *Der Meister*—a full-fledged and perhaps slightly arrogant legend. In any case, the cellist plays beautifully in the Beethoven Sonatas: aristocratic phrasing, chiseled line, pure intonation. It is the pianist, however, who dominates—sometimes to questionable advantage—in the outlining and interpretation of the performance. Neither of the Op. 5 Sonatas were previously released although the three later pieces did appear briefly both as 78 rpm sets and—crowded onto a single LP—as RCA Victor LCT 1124. Op. 5, No. 1 goes wonderfully well here, with that tremendous twinkle and structural cohesion that Schnabel invariably achieved. The tempos are bright and alertly forward-propelled, and the last movement is particularly joyous and energetic. The G minor Sonata, on the other hand, is slightly disappointing. The Adagio is surprisingly slack and not quite together as an ensemble at the very beginning. (Schnabel played it much more tautly in his prewar set with Piatigorsky.) Schnabel's pianism in the Allegro proper is similarly disquieting—unstylistic appoggiaturas clipped short before the beat, some shockingly cavalier phrasing and, I might as well confess, messy, technically simplified passagework, which was all too frequently a Schnabel hallmark. All of these defects are atoned for by the playing of the rondo—another splendid, rowdy, high-spirited reading.

Some listeners may find the rendering of the lyrical Op. 69 Sonata too businesslike for their tastes, and again, might conceivably take issue with certain arbitrary details, e.g., Schnabel's eschewal of the trills in his solo at the beginning of the first movement. I find the reading revelatory. For once, the first movement is a true Beethoven Allegro, not the usual droopy, rallentando-laden nocturne. None of the fermatas are overdone, and there is a magnificent, dynamic outlining of the harmonic structure. The scherzo is kept admirably trim with its terse trio section properly observed twice (all repeats are made in this sonata). The finale goes at a terrific lick but has consummate proportion. Schnabel and Fournier are, if anything, even more commanding in the cryptic Op. 102 works, and their work there has enough lyricism to satisfy anyone. The sound is dated, of course, but basically very substantial, with round piano tone, bright, forwardly balanced cello, and a pleasant room ambience. A few side-joins betray the set's shellac origins and there are some ticks, swishes, and momentary bursts of surface noise in the two Op. 5 works. Yet, how wonderful it is to have these memorable—if slightly uneven—performances available at long last, and at a bargain price to boot!

Pierre Fournier—"must" chamber music.

Fournier and Backhaus are more equal partners in the Brahms than Fournier and Schnabel were in the Beethoven. The cellist had about eight more years of experience behind him when he taped these works for London/Decca in 1954, and as noted, Backhaus was a less frequent sonata partner than Schnabel and, perhaps precisely for that reason, a bit more self-effacing. Sometimes he is a bit *too* self-effacing in the first movement of the F major Brahms. As many of you know, this work is like a tornado with furiously lashing piano tremolos. In his calm, scrupulous account, Backhaus uses the pedal charily and the result is clearer but less immediately exciting than I think Brahms intended. On the other hand, it is a pleasure to hear all the part-writing so knowingly projected. Backhaus was a remarkable artist in certain repertory and Brahms was perhaps his greatest specialty. He phrases with graciousness but without petulance, a big, calm, magisterial style with velvety tone and a requisite burly bass line. I have heard more emotional performances of these sonatas but rarely, if ever, such worldly-wise ones. Tempos tend to be moderate—a bit faster in slow movements, slower in fast ones—and every movement emerges as a beautifully turned entity. There are no first-movement repeats in either work and the F major is consequently a bit foreshortened. As for the sound, it is a pleasure to report that absolutely no concessions have to be made for this disc. Both instruments are faultlessly balanced and each sounds exceptionally realistic in tone. The electronic stereo reprocessing has, for once, been done with the greatest of tact, and in fact the resurrected sonics are, to these ears at least, preferable even to the toppier, more reverberant engineering allotted to Fournier and Firkusny on the later DGG disc. But that performance is so utterly different (and effective in its own way) that it is pointless to make comparisons.

Suffice it to say that both of the releases under review are musts for any collection of chamber music. My only regret is that Vox might have done better with the annotations: I am all for the comprehensive approach that puts the discussed music in proper context, but certainly it is going a bit far when Charles Stanley (whether by accident or design) tells us all about Brahms's first two violin sonatas!

H.G.

BRAHMS: Ein deutsches Requiem, Op. 45; Vier ernste Gesänge, Op. 121. Edith Mathis (s); Dietrich Fischer-Dieskau (b); Edinburgh

Explanation of symbols

Classical:
- B — Budget
- H — Historical
- R — Reissue

Recorded tape:
- ●● — Open Reel
- ◉ — 8-Track Cartridge
- ●● — Cassette

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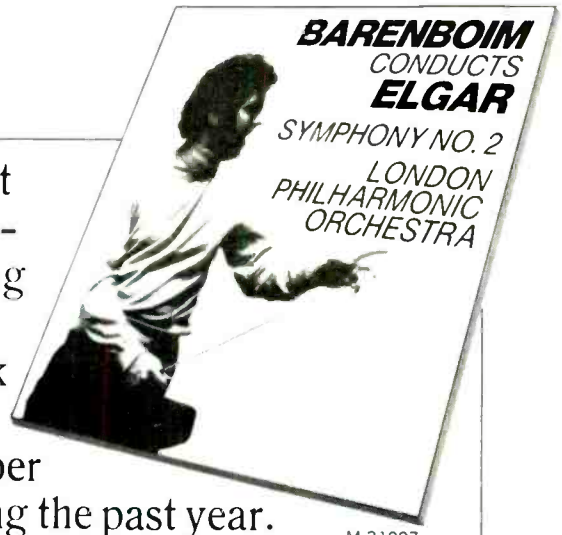

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Selected comparisons (Requiem):

Klemperer	Ang. 3624
Mengelberg	Turn. 4445/6
Walter	Odys. 31015
Karajan	DGG 2707 018
Leinsdorf	RCA 7054
Ansermet	Lon. 1265
Ormandy	Col. M2S 686

Selected comparison (Ernste Gesänge):

Kipnis/Moore	Sera. 60076

"Blessed are the arts which can survive without the aid of 'interpreters.'"

—Arturo Toscanini (from an angry unmailed letter written in October 1941).

Barenboim's performance of the *German Requiem* brings the Maestro's neobiblical intonement to vibrant life. Barenboim is an "Interpreter" with a big "I" for effects that will call attention to himself rather than to the music. His fancy rendition is replete with such disruptive details as the taffy-pull treatment of hairpin expression marks beginning at bar 30 in the first movement or the absolutely blood-curdling fortissimo shriek of the chorus at the un poco sostenuto section (bar 198) of the second. The stentorian punching out of fugal portions (measure 173 *et seq.*, in the third movement), the soupy, sentimental treatment of the passage at bar 137 also in the third movement), the shift to almost double speed at bar 19 of the first movement, and the infuriating gearshift at bar 149 of the fourth are further evidence of the hokum that passes for profound musicianship in this utterly disagreeable reading.

Such liberties, whatever one might think of them musically, *do* require a conductor of supreme craftsmanship and here it is my duty to report that Barenboim is out of his (imagined) depth: Surely it is putting the cart ahead of the horse to take such chances when the most basic problems of ensemble give him extreme trouble. For one thing, Barenboim has one of the crudest, most unflowing stick techniques imaginable. He is seemingly unable to get his players to start together. One is reminded again and again of the kindly but inept Anton Bruckner leading the Vienna Philharmonic in his own Seventh Symphony. ("After you, gentlemen!") The pulsations of the cellos and basses at the very start of the first section are so ambiguous here that no tempo at all is discernible for a good dozen bars. Rhythms are listless, phrasing unshaped, tempos (slow to begin with) are made to plod because accentuation is so lax. Another major disaster area is that concerning balance and clarity. What is audible is largely a matter of haphazard chance—the harp booms out at measure 48 in the first movement but it is impossible to hear its figurations intelligibly, the lower strings sag as if they were in need of a corset, the massed brass and choral passages are as woolly as a knitted sweater, and the drums pound away in the dirgelike second movement with the impact of a truckload of cooked oatmeal. Hundreds of attacks lack unanimity, and many carefully marked piano or pianissimo markings are cavalierly ignored.

As for the two soloists, Edith Mathis is an intelligent soprano with true intonation and a warm, pure voice. She tries her best but everything is against her here (the bumptious, swollen introduction; the backbreakingly lame tempo for music that must—above all—flow; the huge *luftpause* just before measure 40). Often the conductor's crassness and inexperience cause Miss Mathis to literally gasp for breath. Fischer-Dieskau's first recorded performance of the *Requiem* (with Kempe) was by far his best. The voice had a youthful bloom then, and Kempe was a restraining influence on this immensely talented but rather indiscreet singer. Klemperer, the conductor of the second Fischer-Dieskau *German Requiem*, left the singer more to his own resources and as a result certain syllables were spat out and the still sonorous instrument was occasionally pushed to sobby, shouty emotionalism.

On the other hand, Fischer-Dieskau surpasses both of his earlier recordings of the *Four Serious Songs*. There is much more virility and stark power in his approach now than of yore. Fortunately Barenboim is an infinitely better pianist than he is a conductor. He can overdo things, to be sure, but there is more than a modicum of flow and continuity plus a goodly measure of idiomatic tonal solidity. He leads, and fortunately the singer follows. It seems almost churlish to have to add that the elderly Kipnis/Moore Seraphim version is still miles ahead. These songs sound so much more affecting when sung with a touch of dignified sobriety. Alongside the artistry of Kipnis and Moore, Fischer-Dieskau and Barenboim sound pretty puerile.

Barenboim's veneration of the late Wilhelm Furtwängler is well known. Furtwängler's

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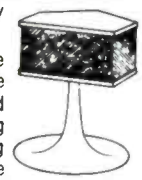

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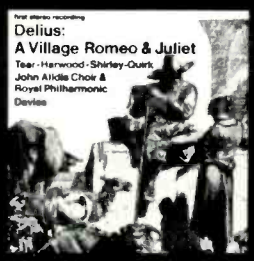

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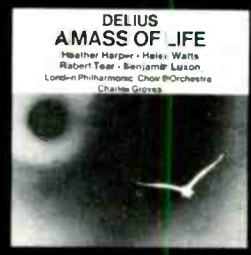

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own recorded *German Requiem* (a 1948 Stockholm broadcast preserved on British Unicorn WFS 17/18) is a lovely reading bearing no similarity whatever to the new Deutsche Grammophon presentation. His wonderfully devotional reading moves with a flowing, aristocratic line, good rhythmic definition, a surprisingly cool understatement, and exquisite nuance. It ought to be made available domestically. Also wonderfully compelling is the totally different 1943 broadcast (in English) by Toscanini (Toscanini Society ATS 1003/4). Every strand of sound is put into high relief and the effect is keen-edged and even a bit grim in its reserved austerity. Certainly the rhythmic elements and the symphonic ones are given extraordinary emphasis there. The two generally available "historic" performances are also interesting and well worth owning. Wilhelm Mengelberg's 1939 broadcast (Turnabout) unearths a lot of orchestral light and shade but accomplishes this by lightening the massive textures. Sometimes the Dutchman's treatment is a bit capricious and episodic, but for all its leeway, it is clearly the product of a virtuoso conductor and a wonderfully cultivated musical mind. Walter's 1954 Odyssey disc suffers from a coarse, harshly brass-heavy acoustic, and from some sloppy playing and singing (both Irmgard Seefried and George London were sadly below par and the New York Philharmonic was—as they are now—in deep trouble). Still, there is something refreshing about the direct, unsentimental Walter approach. He urges the music onward with fast tempos and a kind of compassionate, uncluttered strength. On a single inexpensive disc, this is a valuable second choice, a sort of footnote to one of the more completely realized modern performances. Karajan's DGG is exquisitely proportioned—a perfect balancing of romantic sentiment and molded classical decorum. Klemperer's stoical reading (save for a few questionable tempos, e.g., the overly brisk treatment of un poco sostenuto in the second movement; the briskly staccato and rather unfeeling start of the sixth) has breadth, stature and some unusual brass detail. Leinsdorf, who has the best detail of all, directs a finely contoured though slightly antiseptic reading. Ansermet successfully recreates the music on a more intimate scale and stresses an unsuspected kinship with the Fauré Requiem. Ormandy's version is a bit unsubtle but sturdily energetic.

In sum, there is a recording of Brahms's *German Requiem* for every taste. Barenboim's is for the tasteless. H.G.

BRAHMS: Sonatas for Cello and Piano: No. 1, in E minor, Op. 38; No. 2, in F, Op. 99—See Beethoven: Sonatas for Cello and Piano.

CHOPIN: Etudes (24), Opp. 10 and 25. Maurizio Pollini, piano. Deutsche Grammophon 2530 291, $6.98.

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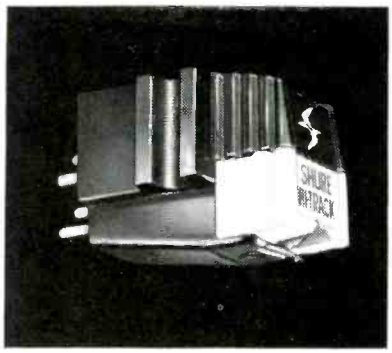

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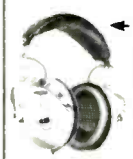

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tion—velocity, even articulation, vibrant brilliance, and a wonderfully succinct, uncluttered attitude toward phrasing, dynamics, and rubato. At first, the straightness of Pollini's approach might give rise to accusations of superficiality, the pursuit of technique for technique's sake. Nothing could be further from the truth, for there are, in fact, many exquisitely poetic turns in the playing, many individualistic details, all of them effected with complete subtlety and economy. Listen to the fiery abandon of the first C major étude from Op. 12, the charged dynamism of the *Revolutionary*, the herculean breadth of the *Winter Winds* and *Ocean*, the dichotomy of raw, nerve-tingling power and benign, pleading grace in the outer and inner sections of the octave study. One could wax rapturous over just about any of the pieces in this stunning performance—the uncluttered simplicity of Op. 10, No. 3 and Op. 25, No. 1; the incredible legato of the left hand in the double-sixth work; the clarity and biting brilliance of Op. 10, No. 2 or Op. 25, No. 9, the elfin fleetness of Op. 25, No. 2. I especially like the manly, large-scaled approach to problems that are so often solved with wishy-washy "introspection" and a lot of tepid arm weight: Pollini knows perfectly how to achieve warmth and breadth of sound when he needs it, and he is able to float a mezzo voce line with the best of them. Nonetheless, he is primarily a finger man—stressing articulation and glinting definition in place of flabby vagueness. I have admiration for some prior editions of the études—Cortot's, for all the smudges, had great style; Goldsand's did also, despite some slightly arbitrary slow tempos and overinflected phrases (e.g., Op. 10, No. 4 and Op. 25, No. 1); Vásáry's older DGG similarly brought interesting light and shade, though some articulation fell slightly below par. The recent Slobodyanik (recorded live in Moscow) was, for the most part, expansive and musicianly though blemished by a dull-sounding piano. Ashkenazy's early Russian recording has a uniformity of technique rivaling the new Pollini, but like Browning and Harasiewicz, tended to be slightly monotonous and undifferentiated in terms of texture and tone. I think that this new Pollini record comes close to being standard—pianism of a transcendental sort. I'd put it in a class with Richter and Horowitz.

DGG's sound is very bright, and sometimes a mite flinty on the treble end. H.G.

DVOŘÁK: Symphony No. 7 in D minor, Op. 70; Overture, Op. 62 *(My Home)*. London Symphony Orchestra, Witold Rowicki, cond. Philips 6500 287, $6.98.

A remarkably "right" performance of what is arguably Dvořák's best symphony. Rowicki, like the late George Szell, holds the line rather taut and keeps textures sinewy and clear. Unlike Szell, however, the Polish conductor doesn't refine away all the heft and darkly Wagnerian coloration which gives this music so much of its unique flavor. The reading is outstanding for its directness and forward propulsion, its willingness to eschew the episodic *Slavonic Dance* characteristics as does Kubelik, to name one of the more successful advocates of such an approach (in his DGG version; the earlier Vienna Philharmonic performance was much less distinguished). Yet Rowicki—and the exceptional Philips engineering—is equally extraordinary in the detail department. Every absorbing facet of Dvořák's colorful and imaginative orchestration is clarified without ever resorting to the squareness of Zdenik Kosler's equally clear but much more stilted reading for Supraphon (briefly available in the U.S. on the defunct Crossroads label). The London Symphony (which has recorded the score excellently on three prior occasions) is in particularly good form here. Every section of the ensemble—whether the galvanic timpani, full-throated winds and brass, or surging strings—respond to Rowicki's leadership with unusually passionate, committed playing. Dvořák's D minor Symphony and *Carnaval* Overture are two works that would seem to have been made to order for Toscanini and which he inexplicably never conducted. I can pay no greater compliment to Rowicki than to liken his performance of the symphony to one which I have always imagined being given by the Maestro: It has the same kind of revelatory impact—an impact that derives not from any willful theatricality, but from a closer, more potent re-creation of Dvořák's demands. This is also one of the few editions of the D minor Symphony to offer a bonus. The *Domuv muj* (*My Home*) Overture gets the same incisive treatment as the symphony. A glorious disc. Rowicki's Dvořák symphony cycle, by the way, needs only the Symphony No. 3, Op. 10 for completeness. (That work, paired with the *Husitská* Overture, is already announced on the back of the present record jacket as S 6500 286 and is presumably due for imminent release.) H.G.

B **MARTIN:** Golgotha. Wally Stämpfli, soprano; Marie-Lise de Montmollin, alto; Eric Tappy, tenor; Pierre Mollet, baritone; Philippe Huttenlocher, bass-baritone; Paulette Zanlonghi, piano; André Luy, organ; Symphony Orchestra and Chorus of the University of Lausanne, Robert Faller, cond. Musical Heritage Society, MHS 1337/8, $5.98, plus 65¢ handling charge (two discs; available from Musical Heritage Society, Inc., 1991 Broadway, New York, N.Y. 10023).

It would be difficult to imagine a contemporary composer whose style is better suited to rendering the story of the Passion than Frank Martin. There is an austerity, a strong sense of control, and yet a feeling of grandeur that immediately puts the Swiss composer's musical language on a spiritual plane with Bach's. These characteristics pervade all aspects of Martin's technique, such as the harmonies, whose richness (in the opening chorus, for example) never borders on the somewhat inappropriate—if beautiful—opulence one occasionally finds in Poulenc. Furthermore, Martin's *Golgotha*, completed in 1946 and inspired by Rembrandt's etching "The Three Crosses," manifests what I find to be a particularly skillful use of texts. For his oratorio, Martin alternated passages from the Bible with selections from Saint Augustine, thus affording him the opportunity for some extremely moving contrasts, both musical and otherwise. In the "Jesus Before the Sanhedrin" movement, for instance, the highly dramatic passage (rendered especially gripping by Martin's dynamic rhythmic language) where the chorus, representing the crowd

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striking Christ, sings "Christ! Christ! Prophecy who has struck you!" is suddenly interrupted by the meditative passage in which Augustine places the blame for Christ's suffering on himself as an individual: "I am the instrument of your pains, of your cruelest agonies." A similar contrast between dramatic action and meditation can be found at the end of the *Calvary* movement. Throughout the work, one finds a perfect balance between music and text—as is typical for Martin the music *feels* lyrical, and yet rarely is there anything resembling an extended melodic line. Instead, many of the vocal passages seem to follow the inflection of the language in a manner recalling Mussorgsky, with the dramatic emotion being created particularly through the harmonies and the rhythms of the accompaniment—the obsessive, repeated piano chords at the end of the *Gethsemane* movement offer but one excellent example of this.

Basically, the performance recorded here is splendid and richly recorded, with an appropriate churchlike resonance. Particularly impressive is the Lausanne University Chorus, which has both depth and balance and often sounds like a single instrument, and tenor Eric Tappy, whose amazingly controlled voice blends almost uncannily with that of alto Marie-Lise de Montmollin in the *Gethsemane* movement. Her effortless singing occasionally shows up that of baritone Pierre Mollet, who sometimes sounds quite strained in the role of Christ. And by the end of the work it must be said that all forces involved seem to have tired. But Musical Heritage is to be thanked for making this excellent Erato release easily available—it is a perfect set for the Easter season and should definitely complement those other compositions that traditionally add their beauty to this time of year. R.S.B.

MOZART: Concertos for Piano and Orchestra; No. 19, in F, K. 457; No. 23, in A, K. 488. Alfred Brendel, piano; Academy of St. Martin-in-the-Fields, Neville Marriner, cond. Philips 6500 283, $6.98.

Soloists and conductors accustomed to the display concertos of the late romantic era often do not know the difference between concertos "for piano *and* orchestra," and "piano *with* orchestra." In Mozart's concertos the orchestra is a full-fledged partner every bit as important as the soloist himself, something that Neville Marriner knows and safeguards admirably. The internal balances are very delicate, for these works, unlike the contemporary symphony, constantly engage the woodwinds in thematic-motivic play. Here all of them are given their due, kept beautifully in evidence, showing good understanding between conductor and engineers. Marriner phrases impeccably and he never permits a melody to sag.

Alfred Brendel is a fine pianist, favorably known from his many recordings, but in this instance he is not in top form. He too is aware of the nature of the partnership with the orchestra, but by being too subdued, even self-effacing, he misses the ideal equilibrium. When he allows the romantic spirit to invade, the phrase endings are dropped, the piano tone becomes shallow to the point of being insubstantial in the cadences, and his concept becomes archaic. This is a curious reversion to the "soft" Viennese pianism of the days when Mozart was considered a charming innocent, and unduly accentuates the ever-present slight Mozartean melancholy. But Mozart was not a rococo artist; he retained only the elegance and some of the phraseology of the style, which he then endowed with solid substance. There are many fine passages, and almost the entire first movement of K. 488 is rewarding, but in the heavenly slow movement, where the orchestra just pours out that deeply emotional melody, Brendel again swoons a bit. That sudden turn with the Neapolitan sixth should not be treated as just a pale harmonic patch in the background; it should be chilling. So, while in many ways this is a good recording, the pianist does not equal the conductor's excellence.

P.H.L.

MOZART: Sacred Music. Helen Donath, Heather Harper, and Kiri Te Kanawa, sopranos; Elizabeth Bainbridge, Gillian Knight, and Yvonne Minton, altos; Ryland Davies, tenor; Stafford Dean, Clifford Grant, Gwynne Howell, and Gerd Nienstedt, basses; John Alldis Choir, London Symphony Orchestra and Chorus, BBC Symphony, Colin Davis, cond. Philips 6707 016, $21.95 (four discs).

Missa brevis, in C (*Credo* Mass), K. 257; Mass, in C (*Coronation*), K. 317; Mass, in C minor, K. 427; Vesperae solennes de confessore, K. 339; Kyrie, in D minor, K. 341; Ave verum corpus, K. 618; Exsultate, jubilate, K. 165; Requiem, K. 626.

Mozart was always impressionable and open to influences which he assimilated with ease and rapidity, but in 1782 he had a new experience that overwhelmed him for a while and was undoubtedly of vital importance for the rest of his life. He became acquainted with the music of Bach and Handel, and for a whole year he was stunned by his discovery, trying to penetrate into this fantastic new world. He had little trouble with Handel, a fellow dramatist, and his own choral writing soon showed that he understood the ways of this painter of vast choral murals, but Bach was an enigma that had to be solved. Mozart had good training in counterpoint, both from his father and from Padre Martini, but that was "academic" counterpoint, a technique to be used when needed; now he came face to face with a polyphony that was not just a discipline but an expression of life itself. This time the assimilation was difficult, as can be seen from the several unfinished works of that year—unusual for Mozart, who was seldom stumped to the point of abandoning a projected work. Outstanding among these is the tremendous torso of the C minor Mass, K. 427, which contains some of his grandest and most powerful music, yet is unaccountably little known.

After extensive research, H. C. Robbins Landon edited a performing score that comes as close to the original (now lost) as imaginative and painstaking scholarship can insure. This is the first recording of the Mass that faithfully follows the reconstructed score and restores the wanton cuts that even Fricsay (DGG 138 124) perpetrated on this noble work the proportions and grandeur of which dwarf everything Mozart had done before. The only previous hint at such depths is given in the solitary Kyrie, K. 341, but that remarkable piece, superbly recorded by Colin Davis and included in this album, is still innocent of the polyphony that suffuses the C minor Mass and gives it an added dimension.

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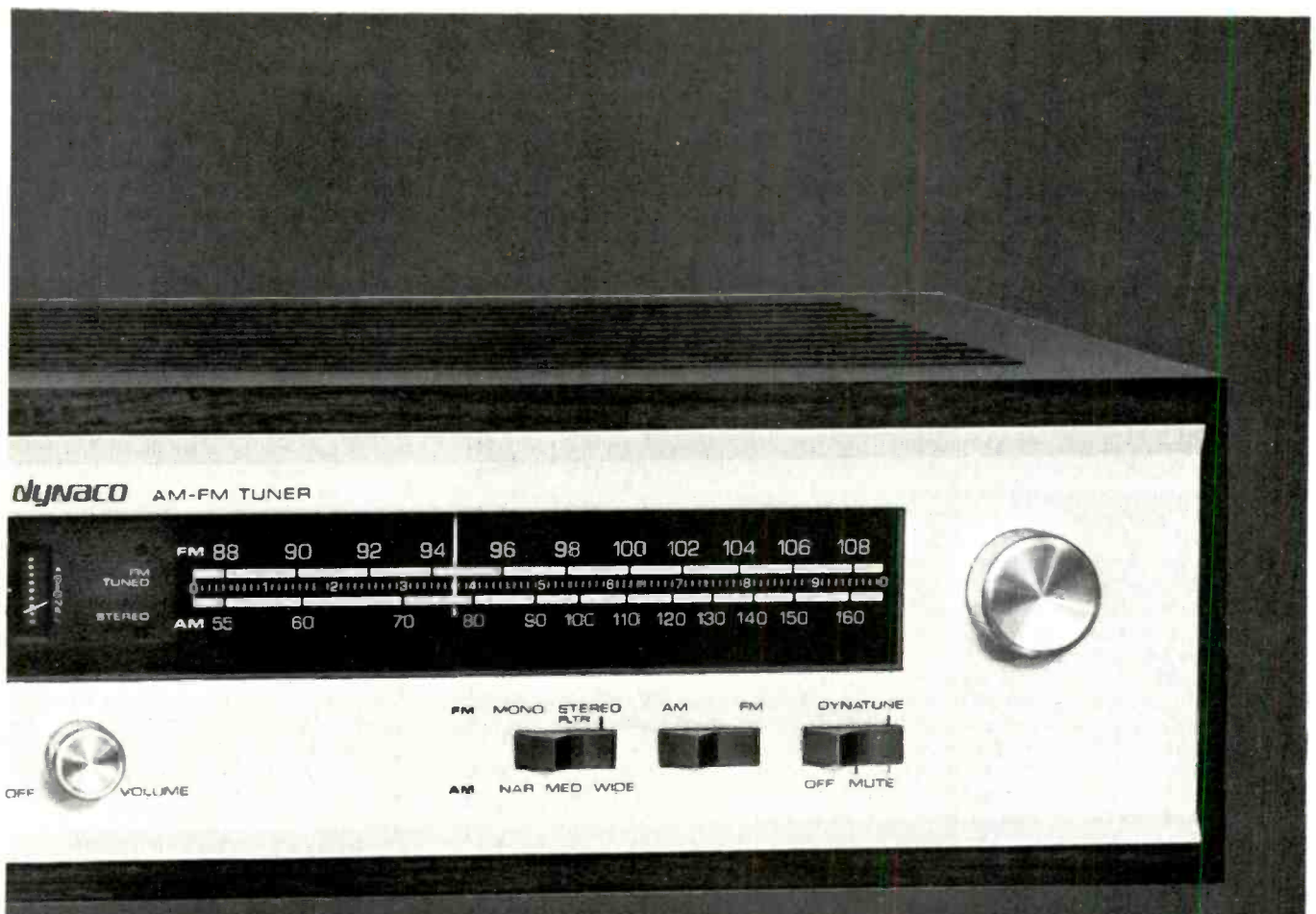

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the part of a composer, especially in a case where the challenge is from the past and must be reconciled with a strong feeling and commitment to the present. To a creative artist with a pronounced individuality, past and future are only ways of thinking, not realities; for him there is only the eternal present. As I have said above, Mozart always assimilated new impressions, but this time he struggled; he grasped the musical essence, the eloquence and depth of Bach's linear style, but was not willing to abandon the present. So this sublime work, undoubtedly with the Requiem the greatest setting of the Mass between the B minor of Bach and the D major of Beethoven, reflects a spiritual dualism, and alternation of majestically grave and powerful movements clearly under the influence of the two giants of the baroque with the elegiac, sweet, and altogether mundane atmosphere of Neapolitan opera.

The impact of the Enlightenment and the pervasive influence of opera upon all genres of music led to the gradual secularization of church music; composers became fond of assigning parts of the Ordinary of the Mass to solo arias, giving rise to the so-called cantata Mass. By Mozart's and Haydn's time the symphonic principles also invaded orchestrally accompanied church music, so in the second half of the eighteenth century we have a blend of Neapolitan opera and Austrian symphony with traditional elements of baroque choral polyphony. Mozart in his earlier Masses used the compound style cheerfully and felicitously, only occasionally striking a deeper tone, but in this Mass he is clearly experimenting. However, instead of blending the old and the new, he juxtaposes them; only in the mighty Kyrie does he use both, while the *Christe eleison* changes into the operatic.

The opening of the Gloria is Handelian in its choral splendor and euphony; indeed, Mozart quotes from *Messiah*, a characteristic bit from the Hallelujah chorus. But the dualism is again asserted in the "*Laudamus*," which is a fine opera aria of the older vintage richly bedecked with coloraturas. The "*Gratias*," with its ostinato basses and heavy dissonances again conjures up the spirit of the old baroque style; even the five-part chorus, by then a rarity, reappears. "*Domine Deus*" is a duet in the happier Mozartean idiom, but this fine piece with its many imitations is essentially polyphonic and shows an attempt at *rapprochement*. The musical and emotional peak is reached in the stupendous "*Qui tollis*" for eight-part double chorus, a composition of such weight, force, penetration, and intensity as Mozart never again undertook. The shapely dotted baroque ostinato accompaniment (which resembles a chaconne-passacaglia) proceeds inexorably, here with sledge-hammer strokes, there barely audible, while the two choirs proclaim Christ's heavy burden. Suddenly, at "*miserere nobis*," the voices drop down to a stammer, only to be roused again by the orchestra. This is an overwhelming composition, the veins stand out, throbbing, only momentarily relieved by the sudden plea of the chorus for mercy. The "*Quoniam*," an extremely difficult and virtuosic trio for two sopranos and tenor, is brighter again, though quite polyphonic. One wonders what singers Mozart had in mind who could do justice to such demanding vocal writing. The quasi-mandatory fugue on "*Cum sancto spiritu*" is deliberately archaic, and though masterly in construction strikes one as being more dutiful than inspired. With the "*Et incarnatus est*" Mozart returns to opera. I doubt that he ever composed a more elaborate bravura aria, which is at the same time tender and naively religious, though this fine piece can hardly be considered well suited to a liturgic composition. The Sanctus is again ecstatic and powerful, and the magnificently flowing double fugue on "*Osanna*" altogether personal and original.

Colin Davis approaches his difficult conducting task with his usual thorough knowledge of the score and solid stylistic sense. Portions of the Mass sound like Davis at his best, but others suffer under unnecessary jeopardy. First, the place where the performance was taped (probably a church) has a terrific echo; every forte blankets several measures and plays havoc with the choral sound whenever Mozart reaches Handelian opulence. Second, the performance is handicapped by adherence to philological accuracy that is not mandatory for the performer. In his excellent and detailed introduction to the score, Landon repeatedly remarks that in several movements Mozart did not expressly demand trombones, "but we may assume that they continued to double their respective choral parts as before." I submit that the trombones should be omitted everywhere except where Mozart treats them as obbligato instruments *on separate staves*. The Mass was intended to be performed in Salzburg where it was standard practice to beef up the weak choir with trombones; but with an adequate choral force as we have here there is no valid reason for making the clumsy things trot along with the voices. In addition, still another imbalance is created by the fact that there are only three trombones; the treble is not duplicated. Now Landon was properly obliged to include in his edition everything he found in the sources, but a sure-handed musician like Davis is not bound to that degree by philological niceties and scholarly protocol; when the choral sound becomes opaque he should throw out the offenders. Davis does not, of course, engage in the outrageous romantic excesses that mar Fricsay's recording, but neither does he make the trumpets and timpani so articulate as did his late colleague. Since other Davis recordings have shown that he knows that the *batteria* punctuates the musical syntax according to symphonic principles, this may be the result either of the acoustic conditions or of poor engineering. The sound is generally good in the less animated passages, but in such instances as the two fugues it is close to aural bedlam, as the two saboteurs, echo and the trio of trombones, bedevil clarity and euphony. The soloists are good, but not quite up to their extremely demanding task. The cruel first soprano part (Constanze Mozart, who sang it in Salzburg, must have been very good if she could cope with it) is a little too much for Helen Donath. She has a nice voice and is a fine musician, but the many high B flats and Cs call for more stamina than she has. Heather Harper holds her own well, but Ryland Davies and Stafford Dean are also a bit under strength for this assignment, making Harper the dominant member in the ensembles—not the best of arrangements.

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This rewarding album also contains other sacred works by Mozart which have been recorded and reviewed earlier. The quiet pieces sound fine, but where the dynamics rise Davis's best intentions are often thwarted. To make such recordings as memorable as those of the D minor Kyrie and *Ave verum corpus* Davis will have to take his forces to a good studio or concert hall. Never mind the organ: the few spots where it is needed can be taken care of by a small portable instrument. And of course he should silence those *colla parte* trombones. But we will accept these recordings as a large down payment on future delivery. P.H.L.

RACHMANINOFF: The Covetous Knight; The Isle of the Dead.

The Covetous Knight:

Albert	Lev Kuznetsov (t)
Money Lender	Aleksei Usmanov (t)
Baron	Boris Dobrin (bs)
Duke	Sergei Yakovenko (b)

Moscow Radio Orchestra; U.S.S.R. Symphony Orchestra (in *The Isle of the Dead*), Gennady Rozhdestvensky, cond. Angel SRBL 4121, $11.96 (two discs).

Operatic success came early to Rachmaninoff. *Aleko*, his first work for the lyric stage, was produced when he was only twenty and was an immediate hit. That, however, was the last of his theatrical triumphs. The composer weighed many subjects for opera, among them, Maeterlinck's *Monna Vanna*, Chekhov's *Uncle Vanya*, Turgenev's *Torrents of Spring* and Flaubert's *Salammbô*. In the end only two projects reached completion: *Francesca da Rimini* (to a libretto by Modeste Tchaikovsky) and *The Covetous Knight* (or, as it is usually referred to in English, *The Miserly Knight*) a word-for-word setting of a play by Pushkin. These were presented on the same bill in 1906, then disappeared from the repertory. The new recording of the latter suggests reasons for its failure as a stage work, but reveals a great deal of beautiful music.

The Covetous Knight tells a simple cautionary tale of avarice: A noble miser keeps his son Albert in poverty. One day the old man publicly accuses the son of trying to secure his death, and promptly dies of a seizure. This somber subject evidently made a strong appeal to Rachmaninoff's imagination: The orchestral coloration is dark, full of half-lights and rich hues. The vocal parts are conceived in an expressive and pliant arioso that concentrates a lot of the emphasis on the text—with the result that the dramatic situation is alive and immediate. The brooding mystery of these obsessive figures is exceptionally vivid.

However, in *The Covetous Knight* situation is more important than development. For all the striking incidents in the final scene—the father's accusation, the son's acceptance of his challenge to a duel, the duke's banishment of Albert, the fatal seizure—Pushkin's drama is essentially about a state of soul, and this Rachmaninoff has followed only too faithfully. The most striking part of the original play is the long middle section, a monologue for the miser in which he reveals the depths of his infatuation with money. The episode is remarkably effective, yet it takes us nowhere. The drama is immobilized. Nothing comes out of what it reveals. Gloating over his wealth the old man dreams of retaining his guardianship of the gold even after his death. He is a creature possessed. His soul is submerged in illusory desires. Rachmaninoff rises to the challenge of this scene with power and skill. The vocal lines are long and full of sudden beauties: the orchestra comments, illustrates, amplifies the dark emotions. Here the miser achieves heroic stature, becomes an evil visionary, a Faustus figure striving toward control over the secret powers of the universe. There are moments when we are reminded of Boris Godunov haunted by the Kremlin clock. It is no surprise to learn that Rachmaninoff intended the role for Chaliapin. Boris Dobrin, the miser on this recording, is clearly not a Chaliapin, and he never sounds possessed by evil, but he is an otherwise convincing performer, intelligent and gripping. The voice sounds strong and young (too young, actually), but it lacks strength in the lower register. Cesare Siepi's old recording of this scene (in English) shows greater vocal proficiency. Lev Kuznetsov, the miser's son, is a Russian tenor of a familiar type: The vocal sound is white and unyielding. But he, like Dobrin and the other singers here, is dramatically exciting. Gennady Rozhdestvensky is very responsive to the passionate colors of this lush, late-Romantic score, to all the shifts of mood and sudden flights of emotion. There is a helpful libretto/translation, though a few misprints have been allowed to get through.

Unfortunately, no photograph of Arnold Böcklin's painting, *Isle of the Dead*, has been included in the booklet that accompanies this issue. Rachmaninoff's melancholy evocation of this now largely unfamiliar work is like a Tchaikovskian rendering of a Strauss tone poem. But whereas the painting now seems hopelessly dated, the music sounds attractively old-fashioned, with its great waves of

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lustrous sound, its strong, unbroken mood, and its melancholy lyricism. Rozhdestvensky and the U.S.S.R. Symphony give the work a fine, passionate reading. D.S.H.

B **RAFF:** Symphony No. 3, Op. 153 (*Im Walde*); Ode to Spring, Op. 76. Michael Ponti, piano (in the *Ode*); Westphalian Symphony Orchestra (in the Symphony); Hamburg Symphony Orchestra (in the *Ode*), Richard Kapp, cond. Candide CE 31063, $3.98.

Raff died in 1882 leaving a prodigious quantity of music—including eleven symphonies. It was inevitable that the present renewal of interest in the romantic period should produce a revival of his work, and this record gives us a generous sampling of what is usually regarded as his best efforts.

The Third Symphony is attractive picture music, filled with the distinctive spirit of Central European romanticism and nature worship, and achieved in terms of interesting thematic material and fine craftsmanship. It's too limited in scale to rival the works of Schubert or Schumann, and it's too tranquil. To use an old Toscanini phrase, this music hasn't much blood in it. But it's pretty enough to justify an organized Raff fan club among those who find the past more congenial than the musical present. Kapp's performance strikes me as a very good one, sympathetic in the fullest sense, well played, and nicely recorded.

The *Ode to Spring* really doesn't contain a great deal of substance, but it does provide Ponti with the occasion to produce some sensitive phrases and clear, bright tones. I surmise that he gets just about everything out of the work that there is to be found, and again Kapp and the orchestra forces are fully in sympathy, but there is nothing memorable in this music. Two minutes after it's over it has totally vanished from your mind. At least that's the effect on me.

But while it lasts you may enjoy it, and if so, enjoy, enjoy. R.C.M.

B **SCARLATTI:** The Spanish Lady and the Roman Cavalier. Fiorenza Cossotto, mezzo; Lorenzo Alvary, bass; Salvador Dali, speaker; Complesso Strumentale Italiano, Giulio Confalonieri, cond. London Stereo Treasury SR 33153, $2.98.

This recording has a subtitle that expresses the nature of the disc more precisely (if such a term can be used in this instance) than does its innocent sounding main title. "A cosmic divertissement by Dali," it says, and the premier *épateur* of the bourgeoisie actually speaks on the recording. His Spanish/English/French medley is largely incomprehensible, though I could pick out a key statement. Dali says that he places two lamb chops on his wife's shoulders because of love, love for her and for lamb chops. Giulio Confalonieri, "who found and lovingly arranged Scarlatti's music," believes that this sort of thing "is close to Salvador Dali's heart."

Well, this is a bit equivocal, unless Dali's heart beats to Confalonieri's music. This is not Scarlatti's *Scipione nelle Spagne* (1714), but the result of an abortion performed on the opera. Now artistic abortion has not yet been le-

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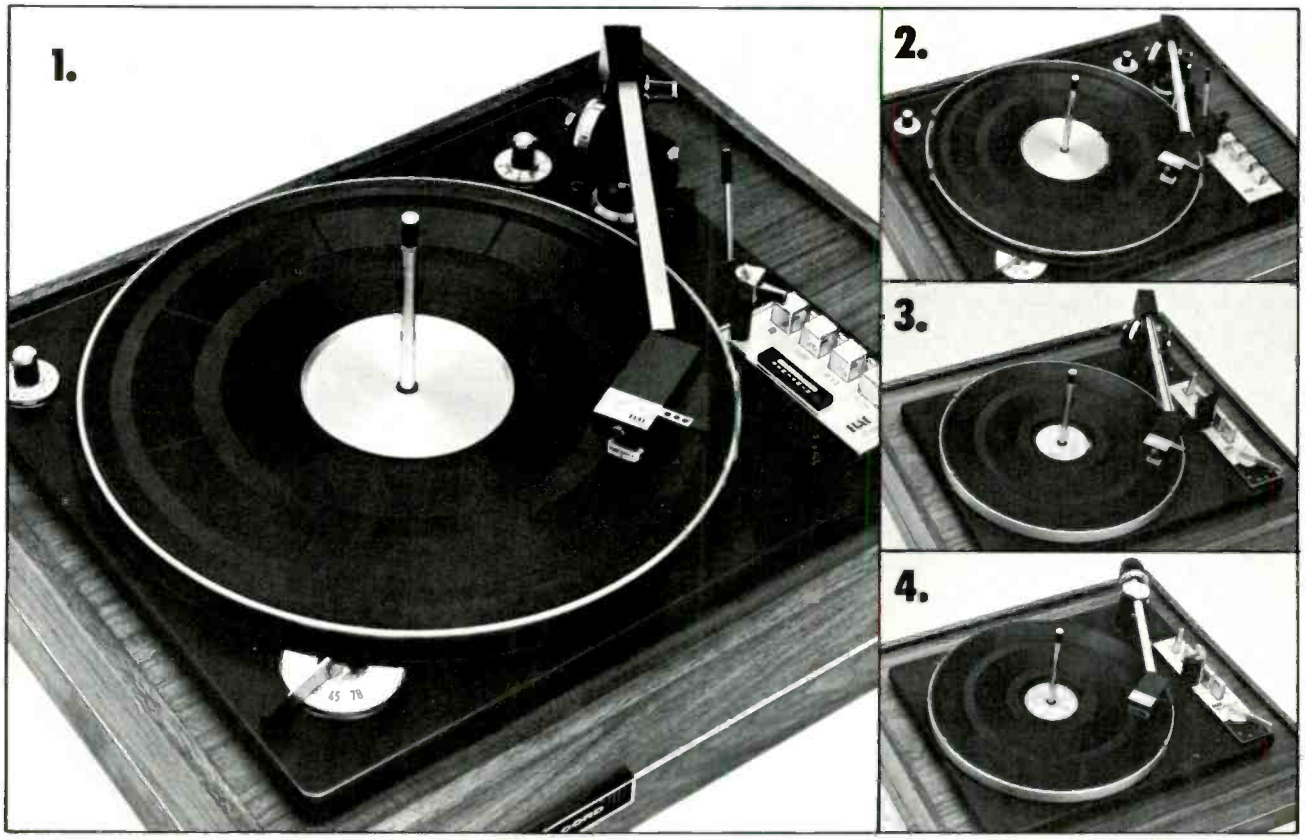

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galized, and let us hope that it will remain on the books forever. Much of this music—contrary to the title—is "in tribute to Scarlatti," i.e., not written by him. Unfortunately, Maestro Confalonieri is a counterfeiter whom the Secret Service would catch within a dozen measures. So after flawed Scarlatti and fake Scarlatti, which is supposed to represent Dali in action, we arrive at the Master himself. Well, the whole thing does not make any sense. Confalonieri should be sent to Devil's Island, London indicted for being an accessory to the crime, and the excellent singers paid compensation for their pain and anguish, or at least given one of Dali's limp gold watches. As to Dali, he is out of my bailiwick so I cannot pass judgment on him, but come to think of it, he is the only legitimate contributor to this silly farrago, for he is at least an authentic nut. P.H.L.

SCHUBERT: Symphonies: No. 4, in C minor, D. 417; No. 6, in C, D. 589. Philadelphia Orchestra, Eugene Ormandy, cond. Columbia M 31635, $5.98.

This "grand orchestra" approach to two of Schubert's lesser symphonies departs from tradition but is no less attractive for that. Ordinarily, these works are romped through with sparkle and intimacy by an ensemble of near chamber proportions. Here the massive heft (especially in the lower strings) reduces the intimacy, but the sparkle is very much present in the alert, sharply pointed playing Ormandy draws from his superbly drilled forces. His tempos are not terribly fast—some of them, like the Allegro vivace in the first movement of No. 4, are actually on the deliberate side—but the attention to note values and rhythmic pulse is always thrusting and precise.

Some of the finer nuances are lost in an approach that goes more for sharply terraced dynamic contours and contrasts between string and wind choirs. The latter are always well forward in this excellent, bright recording despite the aforementioned weight of the former. Ormandy, aside from the size of his orchestra and preferences for sonority, has some admirable notions vis-à-vis phrasing and tempo relationships. For instance, he finds a pace for the problematical third movement of No. 4 that accommodates both its outer section and the central trio (somewhat more tersely handled than in the customary reading which slows down to an amiable saunter). Then too he gets a fine, spunky exuberance to No. 6's scherzo and exceptional swagger to both finales. Frankly, I am slightly tired of having the *Gemütlichkeit* stressed in these works and welcome Ormandy's attempt to relate them both to the mature Schubert of the "Great" C major and *Unfinished* symphonies.

In short, two admirably unsentimental, militaristically disciplined readings that really clear the air. Strongly recommended. H.G.

SCRIABIN: Twenty-four Preludes, Op. 11; five Preludes, Op. 74; Poem, Op. 32, No. 1. Ruth Laredo, piano. Desto, DC7145, $5.98.

Selected comparison (Preludes, Op. 74):
Kuerti — Monitor 2134
Selected comparison (Poem):
Horowitz — Columbia M2S 728

Having recorded the complete Scriabin sonatas and a number of shorter works for Connoisseur Society, Ruth Laredo now moves to Desto with the first stereo version of the complete Op. 11 Preludes, which she plays beautifully. The comparison between Chopin and Scriabin has been made umpteen times; but it is not until hearing these Preludes that you realize how insufficient the comparison is for many of Scriabin's *other* early works, such as the remarkable Op. 8 Etudes, which have a particular harmonic richness and rhythmic drive that immediately distinguish them as Scriabin. The twenty-four Op. 11 Preludes, on the other hand, rarely seem to me to offer this kind of depth—although Laredo maintains just the opposite in her liner notes—and as such often seem like genuine pastiches. But the pianist's supple and warm approach to these preludes and her romantic, singing legato make them worth listening to, as does the recorded sound, which is especially good, save for a slight pinched quality in the midrange. I also particularly like the tone of the Baldwin piano Laredo has used here and in her other recordings.

The five Op. 74 Preludes are something else again. These are the last pieces Scriabin wrote, and not only can they be situated musically miles away from the Op. 11 Preludes, but they seemed to have opened the door onto a third period in Scriabin's career. Here, Laredo's interpretation lacks only a certain intensity to put them on an even par with those of Anton Kuerti, which are incomparable, and she receives somewhat better engineering. And I greatly prefer her version of the Op. 32, No. 1 *Poem* in F sharp minor to the one played by

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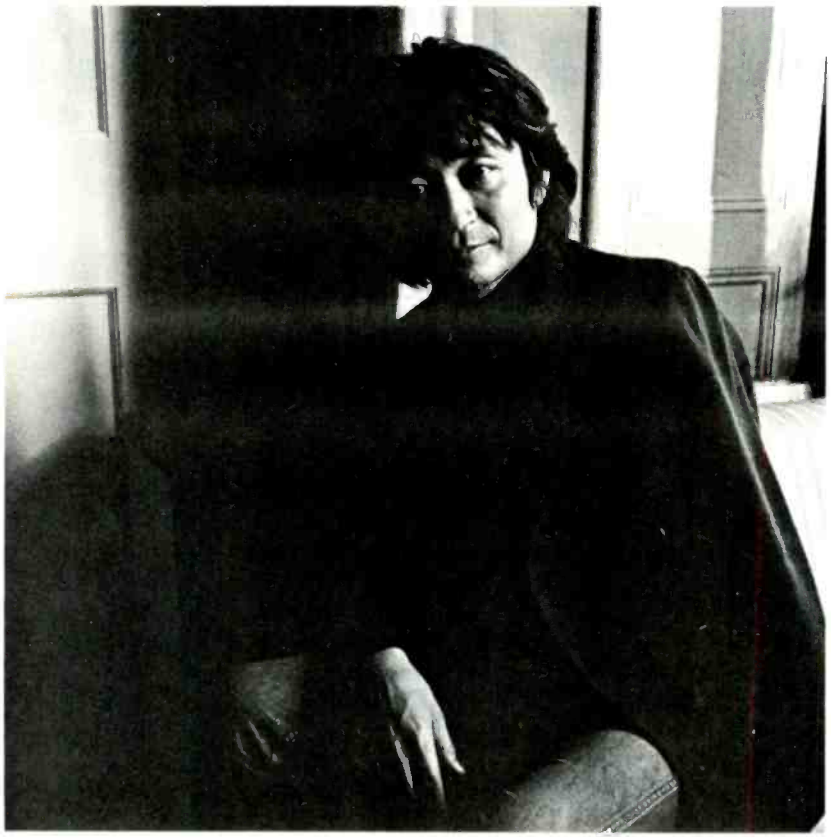

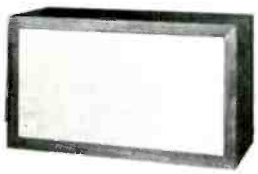

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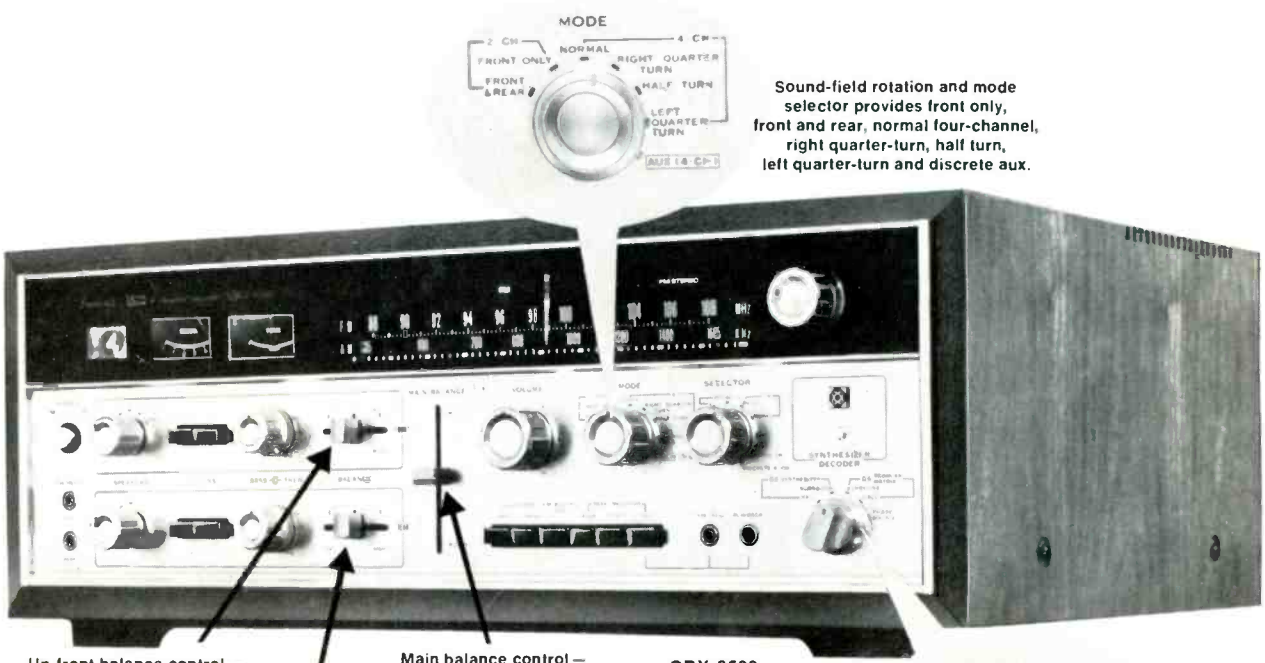

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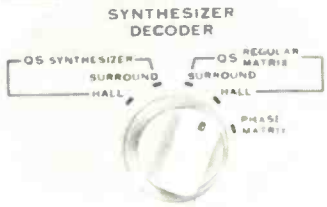

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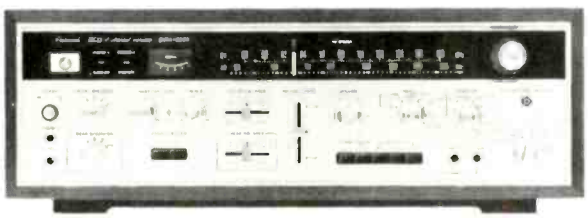

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Horowitz in his Carnegie Hall recording, if for no other reason than that the latter seems, with his near-staccato rendition of the oft-repeated-rising figure, to be trying his darndest to make the piece sound like Chopin. Laredo's approach strikes me as much more idiomatic, and if she occasionally impresses one as a bit heavy-handed, she more than makes up for it with her warmth and vitality. R.S.B.

SHOSTAKOVICH: Symphony No. 15, Op. 141
Moscow Radio and Television Symphony Orchestra, Maxim Shostakovich, cond. Philadelphia Orchestra, Eugene Ormandy, cond.
For a feature review of these recordings, see page 74.

JOHANN STRAUSS II: Die Fledermaus.
JOHANN STRAUSS II: Die Zigeunerbaron.
JOHANN STRAUSS II: Eine Nacht in Venedig.
Anneliese Rothenberger; Nicolai Gedda; Vienna Symphony Orchestra, Willi Boskovsky, cond.
For a feature review of these recordings, see page 68.

JOHANN STRAUSS II: Voices of Spring and Other Favorite Waltz Melodies (arr. Pourcel). Mady Mesplé, soprano; Franck Pourcel Orchestra, Angel S. 36888, $5.98.

I've heard Mlle. Mesplé before only as the disarming ingénue sister, Sophie, of the heroine of Massenet's *Werther* in the Angel recording starring Victoria de los Angeles, so it's disconcerting as well as extremely exciting to encounter her present bravura, even exhibitionistic, virtuosity in showy Pourcel arrangements of familiar Strauss waltzes fitted with French lyrics by Harvel and Layani. And while properly every record release should be evaluated strictly on its own individual qualities, it's hard not to compare this one with Cristina Deutekom's "In Vienna" program for Philips which I reviewed in these pages last December. The type of repertory is much the same except that Miss Deutekom's is more imaginatively varied, while the arrangements she uses are generally older and more conservative. The differences are in idiomatic authenticity, where Deutekom is slightly superior to Mesplé and her conductor, Franz Allers, markedly superior to Pourcel . . . in recording characteristics, with the more "natural" but somewhat thin-bodied Philips sonics contrasting with exaggeratedly reverberant "big" Angel sonics . . . and in sheer vocal and executant éclat, where Mesplé outshines even so brilliant a competitor as Deutekom. I don't really approve of exploiting such gussied-up materials and coloratura skills for such frank showmanship purposes, but at its best (as in the *Tales from the Vienna Woods* with its elaborate solo cadenzas), I have to admit that the show is dazzling. R.D.D.

TCHAIKOVSKY: The Nutcracker, Op. 71. London Symphony Orchestra; Members of the Ambrosian Chorus; André Previn, cond. Angel SB 3788, $11.96 (two discs). Tape: ●● 4X2S 3788, $9.98.

The continuous popularity of *The Nutcracker* and the best-seller status of almost every recorded representation, in whole or in part, make it all the more shocking that there has been no new complete version in almost a decade. Dorati's goes back to 1963, Ansermet's to 1959, and Rodzinski's still further to the very dawn of the stereo era. So Previn has an obvious advantage on a sheerly sonic level: The EMI producer/engineer team of Christopher Bishop and Christopher Parker captures the London Symphony at its best in transparent, fairly closely miked yet ungimmicked, vividly realistic sound—sonics which are particularly noteworthy for their sharp focus and glitter in pianissimo passages as well as for their fiery brilliance and powerful impact in the climaxes.

Previn frees himself here from most of the interpretative mannerisms that have marred some of his previous major performances, yet he retains a distinctively individual approach: He even achieves the minor miracle of restoring the seductive freshness of so hackneyed a piece as the *Waltz of the Flowers*. Best of all, he stresses the quintessentially *theatrical* magic of this music's most dramatic moments—those so inadequately suggested in the lightweight suite that is all many home listeners know of *The Nutcracker*. So I have no hesitation about placing so admirable an all-round version at the top of the list of available choices. That doesn't mean it supersedes or renders obsolete the others, however. Good as it is, it still is no more than *primus inter pares*, and many of us will continue to treasure the more robustly balletic Dorati reading, the more grandly ceremonial one by Ansermet, and the more eloquently poetic one by Rodzinski, which still remains my personal favorite. And it's surprising how good the much older recordings still *sound*—although in this respect, of course, Previn and Angel command even more lucid and colorful aural appeal. R.D.D.

TCHAIKOVSKY: Suite for Orchestra, No. 1, in D minor, Op. 43. Moscow Radio Symphony Orchestra, Arvid Jansons, cond. Melodiya/Angel SR 40174, $5.98.

Selected comparison:
Dorati Mer. 3-9018

I've seen Jansons' name before as conductor of the Leningrad Philharmonic in a Boccherini cello concerto, but I haven't heard that performance and the present jacket notes provide no biographical information. Hence the electrifying surprise of meeting a "new" artist so authoritative and gifted both as interpreter and executant. The charming, if inexplicably rarely heard, first Tchaikovsky Suite may not be the most difficult score in the world, but it isn't the easiest either, and in any case Jansons has to compete with no less redoubtable a rival than Antal Dorati—yet he not only gives Dorati a close run for the money over-all but actually surpasses him in a more infectiously zestful first-movement fugue and a more jauntily piquant Gavotte finale. Melodiya engineers provide a more gleamingly transparent recording too, although the thicker five-year-old Mercury sonics still sound impressively rich and warm.

All these comparisons are important, however, only in establishing the presumably younger conductor's credentials. Dorati's version is available only as part of a set comprising all four Tchaikovsky suites, the only complete set currently available; whatever else

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Jansons may do in the near future, a complete set from him is quite unlikely, since Melodiya/Angel released the Third Suite in a Kondrashin version just a few months ago. R.D.D.

WAGNER: Grosser Festmarsch; Die Feen: Overture; Das Liebesverbot: Overture; Huldigungsmarsch; Kaisermarsch. London Symphony Orchestra, Marek Janowski, cond. Angel S 36879, $5.98.

For reasons doubtless best known to their advertising agency, the sponsors of this record have elected to give featured billing to the weakest work. Here titled *American Centennial March*, Wagner's *Grosser Festmarsch* (the full title reads, in translation, "Grand Festival March for the Opening of the Centennial Celebration of the Declaration of Independence of the United States of North America") is very possibly the most vapid collection of mindless scalar tunes, mechanical sequences, and interminable (as well as unfulfilled) preparatory gestures ever set down on paper by a major composer. Wagner himself remarked that the best part of the *Festmarsch* was the money he got for it (at a time when the first Bayreuth Festival was in preparation and the Festspielhaus in hock up to its top tier). Sins can be forgiven; they should also be forgotten.

Decidedly welcome, however, are the two early overtures, especially *Die Feen* (1833), a capable Weberian exercise, if orchestrated with a hand less light than the model's. *Das Liebesverbot* (1836) is in the *opera buffa* mode, and the clatter of castanets and tambourines that incessantly adorns the main material rather overemphasizes a certain lassitude of genuine development. Mr. Janowski excises thirty-two bars from the coda, but otherwise does well by Wagner in these pieces.

The earlier marches are somewhat more substantial than the American exercise. The *Huldigungsmarsch*, written for King Ludwig's nineteenth birthday (in 1864) has some real tunes and a nice bounce, if not the subtlest of taste (it was originally scored for military band, and is played here in an orchestral version by—I believe—Raff). Taste is in rather shorter supply in the *Kaisermarsch* (1871); if affection for the royal patron animated the earlier piece, *Schadenfreude* over the defeat of France seems to have been the impulse for this one, which includes an optional vocal part for unison chauvinist chorus at the end—mercifully omitted here; Luther's *Ein feste Burg* is quoted, and there are some fairly empty gestures.

The LSO manages all of this with some panache, although the recording is on the coarse, blowzy side, and grinds badly in unsympathetic postecho to some of the big tutti in the *Festmarsch*. D.H.

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CIRCLE 57 ON READER-SERVICE CARD

recitals and miscellany

CHICAGO SYMPHONY ORCHESTRA: The Kubelik Legacy. Chicago Symphony Orchestra, Rafael Kubelik, cond. For a feature review of these recordings, see page 76.

THE CONCERT AT HUNTER COLLEGE. Victoria de los Angeles, soprano; Alicia de Larrocha, piano. Angel S 36896, $5.98.

LITERES: Accis y Galatea: Conflado jilguerillo. **LASERNA:** El Tripili. **GRANADOS:** Nine Tonadillas; Six Canciones Amatorias. **FALLA:** Seven Canciones Populares Españolas. **GIMÉNEZ:** La Tempranica: Zapateado.

The recital given by Victoria de los Angeles and Alicia de Larrocha on November 13, 1971 (and repeated by public demand nine days later) left a good deal of euphoria in its wake. Spanish music, with its sensuousness and rhythmic vibrancy, makes a very direct appeal, and is, beside that, heard all too infrequently in our concert halls. The idea of combining De Larrocha's elegant brilliance with De los Angeles' warmth and femininity in an evening of Spanish songs was, therefore, especially happy. The pairing of two extremely gifted musicians, each thoroughly at home in the idiom of the music, each confident of her interpretive uniqueness, was bound to create excitement, the atmosphere of a special occurrence. The jacket of the present disc—a live souvenir of this partnership—is festooned with testimonials to the venture's inevitable success.

Unfortunately, the undeniable pleasure created by this stroke of managerial acuity, has been inflated out of all proportion to its artistic value: The record is offered as a "treasure" that "is now part of musical history," and what was gleaned from two recitals (the original and the repeat) is offered here as "*The* Concert at Hunter College," as if New York had been vouchsafed an epiphany.

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CIRCLE NO. 99 ON READER SERVICE CARD

by David Hamilton

The Inflammatory Ljuba Welitsch

SOME MEMBERS of the audience at last year's Metropolitan revival of Donizetti's *La Fille du régiment* didn't understand why a standing ovation erupted in the last act when a red-haired lady appeared at the top of the stairs, gesturing extravagantly. Poor things, they must not have been operagoers during the late 1940s, when Ljuba Welitsch, of the gleaming silvery voice and the inflammatory stage presence, was making her brief but sensational career as an unforgettable Salome, a superb Verdi soprano, and—among other things—the most outrageous Musetta ever to hit New York or London. Doubtless it is to that brief (nonsinging) appearance last year, and the publicity thereby engendered, that we owe these welcome reissues, of which the Seraphim offers the earlier material, including a *Salome* finale taken from a 1944 Austrian broadcast (issued for the first time) and a selection of her English Columbia 78s from 1947–48; the Richmond recital first appeared in 1951.

The Welitsch sound was something rather special, not merely for its distinctive color, but because it was so needle-sharp in focus, without sacrificing spin or life: this has great musical value, for it permits singing of truly instrumental precision. The potential drawback, however, is serious, for without equally precise intonation, the results can be painful to hear (a fatter, rounder sound gives a singer more leeway, of course). Happily, Welitsch had a fantastic ear (as well as uncanny accuracy in other musical dimensions), and there is not a minute on either of these records to give the listener qualms; the purity of intonation is so remarkable as to be a source of aural pleasure in and for itself—try the chromatics in the allegro of the *Freischütz* Prayer.

More than this, she had imagination—every aria here is brilliantly conceived, with a sharp profile for every piece, for every change of mood (the *Onegin* scene, regrettably sung in German, is a strikingly mercurial performance). She always trusts the composer, working out her interpretation within a framework of great literal accuracy, rather than pulling and hauling the music about to fit some personal "idea"—and yet every note is vibrant with personality, every climax set forth with fearless thrust.

Two of the Seraphim tracks duplicate repertory found on the equally important Odyssey Welitsch record (32 16 0077). The *Tosca* aria is a very similar performance, although the earlier Seraphim follows exactly Puccini's word distribution at the climax, and adds a very sexy deep breath after the final note! (In both versions, she starts by pressing ahead of the orchestra, but this isn't a problem elsewhere.)

The newly resurrected *Salome* finale, conducted by Lovro von Matacic, would seem to be the earliest available Welitsch recording, and comparison with the 1949 Reiner-led Odyssey reveals very little change in the voice except a filling-out of the lowest register. The reading of the final pages here is extremely suggestive (in both senses of that word), and the whole has perhaps more impetus than the studio version, despite congested sound and some orchestral mishaps along the way. (Welitsch made still another version of the scene, just before coming to New York, with Karajan conducting, but one of the original masters was irreparably damaged in transit and so she redid it with Reiner.)

I must also mention the uncommonly faithful *Bohème* aria—she may have hammed up her stage Musettas unconscionably, but you just don't often hear this tune sung so well. On the Richmond disc, the *Pique Dame* numbers (also in German) are tremendously vivid, and the *Ballo* arias *sans pareil* for urgency, directness of phrasing, and linear purity. There are a few signs here, in the slight but palpable lessening of focus at the top, that all was not well with the voice, but you would hardly notice unless making direct comparisons with earlier recordings. The operetta numbers are splendid, with great vitality and spirit. Alas, a couple of tracks are cut short at the end by a hair, there are traces of print-through in pauses before high notes (this last flaw was less evident in my earlier copy, a British Decca ten-incher), and the reissue sound is also a shade "toppy."

Enough said—both are among the great vocal records of all time.

B R **LJUBA WELITSCH:** Opera and Operetta Arias. Ljuba Welitsch, soprano; Vienna State Opera Orchestra, Rudolf Moralt, cond. Richmond R 23188, $2.98 (mono; from London LLP 69, recorded c. 1950).

TCHAIKOVSKY: Pique Dame: Ich muss am Fenster lehnen; Es geht auf Mitternacht. **VERDI:** Un Ballo in maschera: Ma dall'arido stelo divulsa; Morrò, ma prima In grazia. **Lehár:** Zigeunerliebe: Lied und Csardas. Die lustige Witwe: Viljalied. Der Zarewitsch: Einer wird kommen. **MILLÖCKER:** Die Dubarry: Ich schenk' mein Herz.

B R **LJUBA WELITSCH:** Opera Recital. Ljuba Welitsch, soprano; various orchestras and cond. Seraphim 60202, $2.98 (mono; from various originals, recorded 1944, 1947–48).

WEBER: Der Freischütz: Wie nahte mir der Schlummer. **TCHAIKOVSKY:** Eugene Onegin: Letter Scene. **VERDI:** Aida: Ritorna vincitor. **PUCCINI:** La Bohème: Musetta's Waltz. Tosca: Vissi d'arte. **STRAUSS:** Salome: Final Scene.

the emotions of the event, however, the musical results are, alas, disappointing. De Larrocha is superb. Not only a wonderful pianist (listen, for example, to the absolute certainty of her touch in the tricky introduction to *No lloreis, ojuelos*, the third of Granados' Six Love Songs), she is also a born accompanist. She breathes with the singer, instinctively feels her phrasing, supports the voice, points up the verbal and coloristic inflections, yet at the same time guides the music with authority. She sounds at the very peak of her powers.

De los Angeles, however, sounds well past hers. In the more than twenty-five years that this artist has been before the public (she made her stage debut as long ago as 1946 as the Countess in *Figaro*) she has performed with unfailing taste and sensibility in a wide range of music: Elsa, Elisabeth, Mimi, Manon, both Rosinas, Mélisande, Lieder, French art songs, baroque cantatas. But she was never for me a particularly interesting artist. There was too little temperament in her work. Each assumption tended to the same kind of sweetness. In addition, the upper reaches of the voice were always problematical for her. Above F the tone was rather thin, hard, and uneasy, and she never really succeeded in integrating the middle and upper registers. Time has not lessened the technical problems. But despite all this, De los Angeles is an immensely canny vocalist and she has learned to deploy her increasingly limited resources with a certain amount of artistic cunning. The tessitura of these songs only very occasionally causes her discomfort. High notes are merely glanced at, for the most part. What is seriously wrong now is her inability to sing sustained notes in any part of the voice with genuine security. In her prime De los Angeles had what must have been the most beautiful middle register of her age, a sound of unforgettable smoothness and distinction. That beauty, sad to say, is only fitfully in evidence these days. For one thing, her breath control would appear to have deteriorated, with the result that her tone production has become uncertain and flawed. Unsteadiness permeates all her extended notes (the *Nana* of Falla's "Seven Popular Songs," for example). In fast-moving music, in songs that express jollity and high spirits she is still very striking. The swift patter of Gimenez' *Zapateado* or of the Falla *Polo* is delightful. There is also new vigor in some of these songs. But as a whole her performance doesn't achieve much but bears saddening witness to time's depredations. Despite the marvelous contribution of De Larrocha this recital would have been better left to our historical imagination. The frequent bursts of applause ill-advisedly left in by the producer would, in any case, make frequent playing of this disc unlikely. Texts and translations. D.S.H.

B **EARLY AMERICAN VOCAL MUSIC.** Music by Law, Read, Morgan, Billings, White, Lewer, Robison, Dare, Chapin, and Anon. The Western Wind; guest artists. Nonesuch H 71276, $2.98.

This is a very important record because it is the first one to contain any considerable number of the big anthems of the New England singing school composers, notably Justin Morgan and William Billings.

The Western Wind is a group of six sing-

ers—two sopranos, two tenors, a countertenor, and a baritone—who specialize in the music of the Middle Ages and the Renaissance: for this experiment in Americana they have added a mezzo and a bass-baritone, and each side of the record begins with a little flourish of instrumental sound, no more than an illuminated initial letter in music.

The group sings everything in madrigal style, with highly refined and beautiful tone, great sensitivity to nuance, and the supple rhythm that goes along with these other qualities. Historically speaking this is all wrong for Morgan, Billings and Company, whose concepts were choral rather than soloistic, whose nuances were rough and blocky if they existed at all, whose tempos were fast and hard-driven, whose sense of vocal tone was anything but refined, and who would probably have been shocked out of their wits at the hermaphroditic sound of the countertenor.

The Folklore Division of the Library of Congress puts out a set of the old New England composers and southern folk hymns as sung at a Sacred Harp convention which is probably close to the historically accurate style and is utterly hair-raising in its effect: there are, or were, other Sacred Harp recordings too, but they don't seem to be currently listed.

On the other hand, the singing of these works in the style used on this record can be logically defended. To play Bach on the piano is to falsify him, but who screams at Glenn Gould? To be sure, one would be hard put to justify, say, the performance of a Beethoven symphony by a harmonica band; but music of the past requiring less complex instrumentalities than the symphony orchestra has a way of accommodating itself to a wide range of interpretative approaches; indeed, it proves its quality by such accommodation; and if one understands what one is dealing with, and does not confuse one thing with another, a modern approach, seriously and sensitively undertaken, may even turn out to be a scholarly contribution of high merit. Such is the case here, especially since the madrigal-like style brings out the strange voice-leading and unconventional harmonies of the music with special clarity and point.

As I have mentioned, the most remarkable things here are the anthems, especially the great, long, monumental, and totally magnificent *Judgment Anthem* by Morgan and a cycle of three pieces by Billings, on a text from the *Song of Solomon*, which adds up to a single anthem-sized work of quite surprising character. What Billings emphasizes here is the sensuous, sexual quality of the text. An erotic anthem out of Puritan Boston, and by William Billings no less! Will re-evaluations never cease?

There is also a beautiful *Anthem for Thanksgiving* by Billings, and shorter pieces by two major contemporaries of Morgan and Billings—Daniel Read and Andrew Law.

The second side is given over to fifteen Southern folk hymns, mostly by composers, known and unknown, of the early nineteenth century. Some are in the form of fuguing tunes; all of them are lovely as sung by The Western Wind and its collaborators. A.F.

BR **THE ART OF KATHLEEN FERRIER.** Kathleen Ferrier, contralto; Isobel Baillie, soprano (in the Purcell and Mendelssohn); Gerald Moore, piano;

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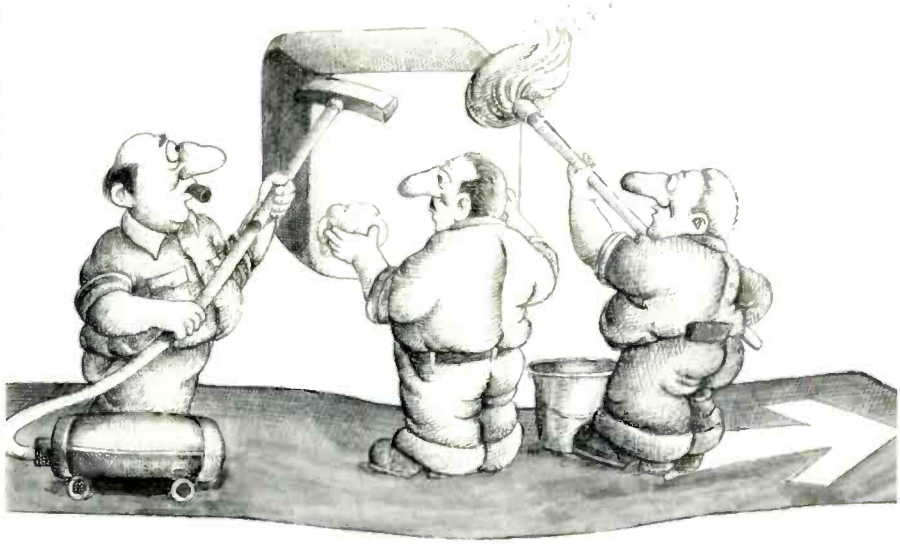

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CIRCLE 32 ON READER-SERVICE CARD

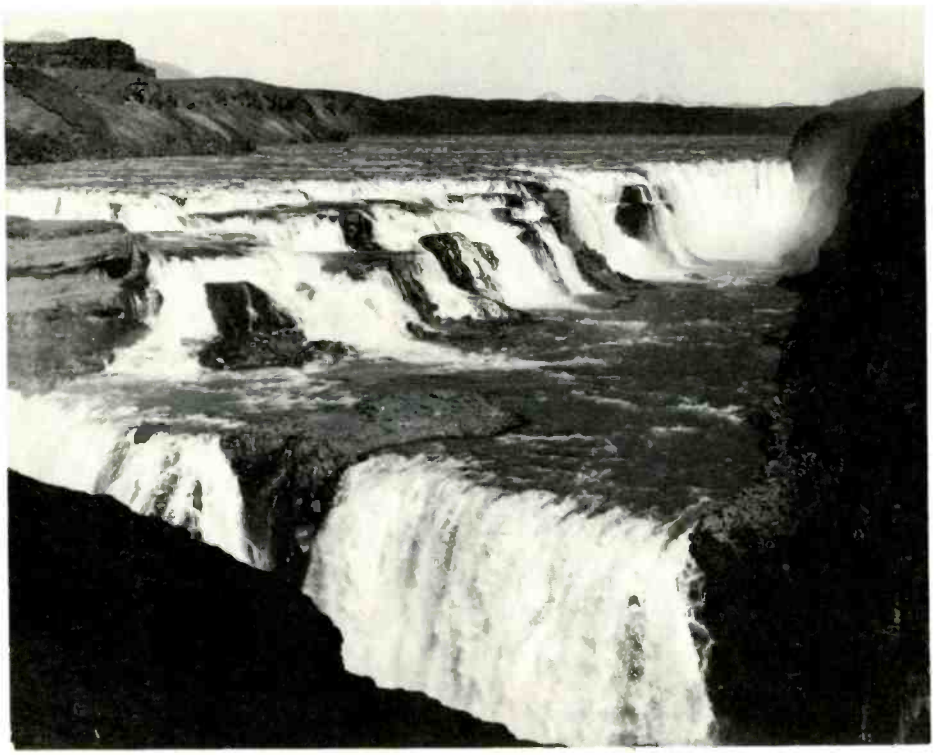
Vienna Philharmonic Orchestra, Bruno Walter, cond. (in the Mahler). Seraphim 60203, $2.98.

MAHLER: Kindertotenlieder. **PURCELL:** Come Ye Sons of Art: Sound the trumpet; The Indian Queen: Shepherd, leave decoying. **HANDEL:** Ottone: Spring is coming; Come to me, soothing sleep. **MAURICE GREEN:** O praise the Lord; I will lay me down in peace. **MENDELSSOHN:** I would that my love; Greeting.

After more than twenty years this performance of the *Kindertotenlieder* is still uncommonly moving. In the intervening period Mahler has been revealed as a more various genius than he seemed when Walter, almost alone among leading conductors, was spreading his gospel just after World War II. It is now easy, for example, to see that Walter's views sweeten his master's acerbities more than is always desirable. Walter's handling of Mahler, eloquent and compassionate, remains entirely valid, however, though a performance like *this Kindertotenlieder* no longer seems, as it once did, definitive, but instead simply one of several possible approaches.

Ferrier, whom this disc is designed to celebrate, sounds as radiant as ever. The voice, a true contralto, one of the last of a vanishing species, was extraordinarily emotive. Though dark in timbre, it was capable of great variation in color. It was also capable of great delicacy and ethereality. There were times when Ferrier sounded disembodied, seemed to have gone beyond earthly disquiet and discovered transcendental serenity—as she does at the conclusion of *Nun seh' ich wohl*, where she takes a perfectly poised, exquisitely soft high E on *Sterne*.

At the same time there was a quality of vulnerability about Ferrier, even before her terrible fate—death by cancer at an early age—was revealed as inevitable. Since then, her art, as it survives in memory and on records, has been shrouded in poignancy. For that reason the second side of this recital will provide a useful corrective. A lot of it consists of lighter music than one normally associates with Ferrier. What one discovers from the Purcell and Mendelssohn duets is Ferrier's charm and femininity. Isobel Baillie, her partner, was a leading British soprano of the 1920s and 1930s, and was nearing the end of her career in 1945 when these records were made. Right up to the last she kept the bright girlish timbre which Vaughan Williams used to such ravishing effect in his *Serenade to Music*, and her voice blends perfectly with Ferrier's very different coloration. There is a rare sense of rapport between each singer, and also between them and their accompanist, Gerald Moore. The total effect, however, is a little genteel. In the case of Mendelssohn the drawing room atmosphere is appropriate. But in the Purcell and the Handel it is not, though the actual singing is superb. The two pieces by Maurice Greene, an eighteenth-century English composer, are pleasant trifles. Texts only for the Mahler. D.S.H.



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CIRCLE 25 ON READER-SERVICE CARD

B H

ELISABETH RETHBERG: Opera Recital. Elisabeth Rethberg, soprano; Giacomo Lauri-Volpi, tenor, and Giuseppe de Luca, baritone (in the *Nile Scene*); various orchestras and conductors. RCA Victrola VIC 1683, $2.98.

VERDI: Aida: Ritorna vincitor!; Nile Scene. Ballo in maschera: Ma dall'arido stelo divulsa; Morrò, ma prima in grazia. Otello: Salce, salce; Ave Maria. **JOHANN STRAUSS II:** Die Fledermaus: Czardas. **SUPPÉ:** Boccaccio: Hab' ich nur deine Liebe.

This recital marks the fiftieth anniversary of Rethberg's debut at the Metropolitan, a house she served with distinction through twenty seasons, from 1922–1942. In her prime Rethberg's voice was astonishingly pure. The scale was even, the tone lustrous. Though her intonation was not absolutely dependable she sang with an almost instrumental clarity of line. Many of her phrases are startling still on account of their intervallic security, a quality almost unknown in this music today: For example, the first measures of "*O patria mia!*" with its perfectly attacked opening F, or the rising phrase on "*Deh! mi reggi, m'aita, o Signor*," a melodic arch of typically Verdian magnificence that reaches a climax in the progression A-G-E, which Rethberg handles with consummate skill.

Rethberg's earlier Odeons and Brunswicks (some of which can be sampled on her Preiser recital) disclose a more beautiful tone, but not quite as much technical skill as her Victors. All the recordings on the present disc are Victors, however, and date from 1927–1931, the period of her greatest proficiency. During the 1930s signs of vocal wear became increasingly evident. Metropolitan air checks of this time (*Boccanegra, Otello, Lohengrin*) disclose great artistry, but harsh sound, and Rethberg's final commercial recordings, a Mozart album from

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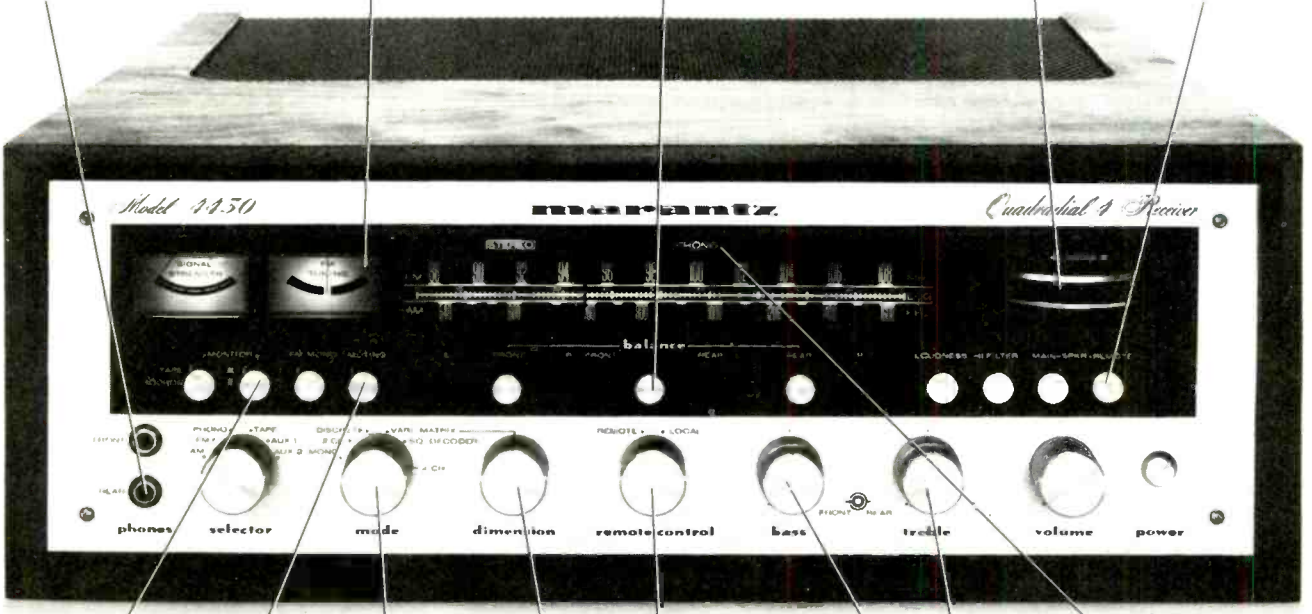

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CIRCLE 43 ON READER-SERVICE CARD

1940 with Pinza, are quite unsatisfactory. Here, though, all is well. Both *Ballo* arias are superb, even if the *Otello* excerpts are less strikingly secure and handsome in sound. The *Fledermaus* is a bit heavy-handed, but the Suppé piece is beguiling, with an unforgettable opening phrase.

These have all appeared on LP before. What this disc offers is the first commercial LP presentation of a more or less complete Nile Scene. The cuts, on the order of the second verse of "*O patria mia!*" and the omission of Ramfis' part in the final melee, are inevitable, given the exigencies of 78 recording. Rethberg's Aida sounds very fine: aristocratic, sensitive, comely. There is a certain placidity about her assumption, however, and she shows a slight but disturbing lack of idiomatic ease with the pronunciation of the text. But much of her music is gloriously sung and she is seconded by two very fine artists, Giacomo Lauri-Volpi and Giuseppe de Luca. De Luca, at that point in his mid-fifties, no longer commanded the mellifluous tone of his youth, but more than made up for it by the vibrancy of his vocal acting and the sheer skill of his singing. Lauri-Volpi, obtrusive vibrato notwithstanding, sounds like a great warrior. His voice is bright, forward, and very youthful in quality. He enters the scene cleaving the night with his brilliant sound, yet can sing a fine sustained pianissimo on high G at the phrase "*Il ciel de' nostri amor.*" With a conductor like Serafin it would all have been overwhelming. Even so, it remains treasurable.

The sound, however, has been mismanaged. The 78s, from which these transfers were presumably made, come across as worn. The signal is erratic and weak. Nor have the side breaks been very carefully equalized. No texts.

D.S.H.

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GIULIETTA SIMIONATO: Opera Recital. Giulietta Simionato, mezzo; Orchestra of Accademia di Santa Cecilia, Rome, Fernando Previtali and Franco Ghione, cond. Richmond SR 33191, $2.98 (from London OS 25123 and 5269).

SAINT-SAËNS: Samson et Dalila: Printemps qui commence. **THOMAS:** Mignon: Connais-tu le pays? **MASSENET:** Werther: Air des lettres. **BIZET:** Carmen: Habañera. **ROSSINI:** Il Barbiere di Sivlglia: Una voce poco fa; La Cenerentola: Nacqui all'affanno . . . Non più mesta. **BELLINI:** Capuleti e i Montecchi: Deh! tu bell' anima. **VERDI:** Don Carlo: O don fatale.

For several years after World War II Giulietta Simionato was one of the most useful and versatile artists on the operatic scene. She commanded a tremendous range of styles, and could move with ease from the high jinks and fioritura of a Rosina to the fierce passions and dramatic accents of an Eboli. She was equally effective as Amneris and Adalgisa, or as Azucena and Arsace. Everything Simionato touched she invested with vitality. She had great presence, an unmistakable personality, the gift of instant communication.

The voice, at best, was only serviceable. The top was powerful, the bottom had some good notes, but the middle was always comparatively weak and lacking in color, and the registers were poorly integrated. As splendid as Simionato was in Rossini on stage she only got past the trickier moments by the exercise of will power and charm. She aspirated fast passages. Zest alone carried her through the register breaks when singing scales. An *oeillade*, a toss of the head, an impudent smile would be the making of "*Una voce poco fa,*" just as a tragic slump of the shoulders, a lowering of the eyes as if with inexpressible pain would be the making of "*Voi lo sapete.*" Oddly enough, very little immediacy survives on her recordings. Without the physical presence of Simionato her art seems pallid and lacking in fluency. "*Una voce*" lumbers, "*O don fatale*" lurches, "*Non più mesta*" wheezes (though less so than in the complete recording). Worse still are the French arias. Simionato has no real problem with the language, though some of her vowels are rather Italianate, but the style eludes her completely. With the complicity of Previtali she takes the music so slowly as to rob it of all life. "*Printemps qui commence*" makes spring sound very late. The letter scene from *Werther* is very sluggish. The two verses of "*Connais-tu le pays?*" seem endless. The tempo only emphasizes the lack of substance in Simionato's lower middle voice. The one real success on this recital is Romeo's beautiful Act II aria "*Deh! tu bell' anima.*" The high tessitura is obviously congenial to Simonato and she sings the piece in a very effective half voice. Otherwise this recital does little to substantiate her fame as a singer. What it does do is remind us of how lucky we were to *see* her.

There is some pre-echo on Side 1 (genuine stereo), though none on Side 2 (reprocessed stereo). No texts.

D.S.H.

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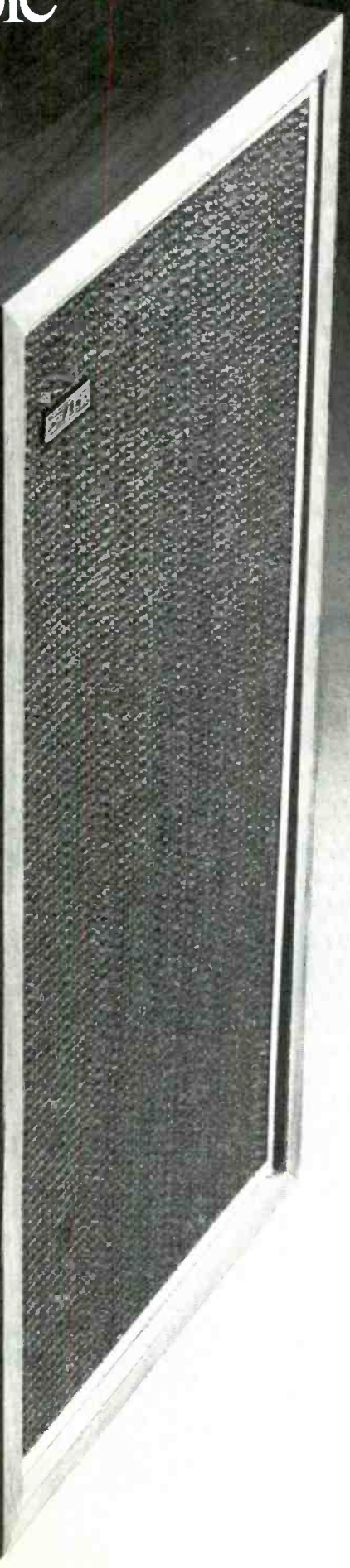

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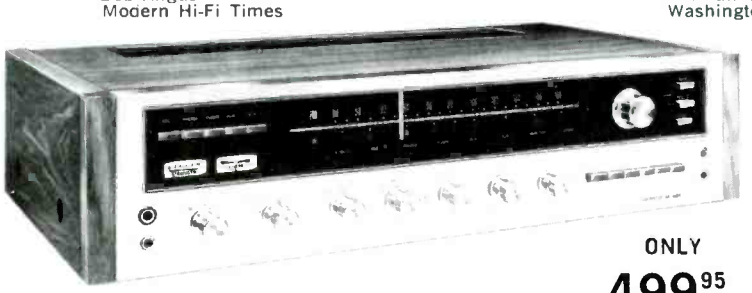

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MARTTI TALVELA: Lieder Recital. Martti Talvela, bass; Irwin Gage, piano. London OS 26240, $5.98.

SCHUMANN: Zwölf Lieder, Op. 35. **KILPINEN:** Kirkkorannassa; Kesäyö; Laululle; Tunturille; Vanha kirkko; Suvilaulu; Jänkä: Rannalta.

The twelve songs set to rather uninspiriting poems by Justinus Kerner form a group rather than a cycle. Though Schumann seems to have been at pains to relate the songs by key they do not have much more in common than a certain similarity of mood and sentiment. There is no sense of progression here, only a series of mainly melancholy narrative fragments. These build up a vague impression of love frustrated, of parting and regret, with nature somehow offering a hint of consolation.

Kerner's verses inspired Schumann only fitfully, except for a couple of songs—*Sehnsucht nach der Waldgegend* and *Auf das Trinkglas eines verstorbenen Freundes*. Other than these there is little sign of the composer's characteristic poetic feeling in this collection.

Neither does Yrjö Kilpinen achieve much of interest in his songs here. There was a time in the 1930s when Kilpinen enjoyed a small vogue. Ernest Newman and Walter Legge both discerned in him the natural successor to Hugo Wolf as a composer of Lieder and formed the Kilpinen Song Society on HMV to advance his renown. To this end, five 78s of his songs were issued, all sung by baritone Gerhard Hüsch and accompanied by the composer's wife, Margaret. Some of these have recently been reissued on Preiser. None is duplicated on Talvela's recital, however.

The effect made by all Kilpinen's songs is pleasing but dim. Kilpinen, who died in 1959, was a traditionalist, who attempted to extend the life of the nineteenth-century Lied into the twentieth century. Melodically and harmonically he got no further than Brahms.

Martti Talvela brings to his recital one of the most beautiful voices of our time. No richer, smoother sound is to be heard from a bass today. The scale is perfectly even; in every part of the scale the voice rolls forth with fluency. Only the occasional use of aspirates mars the legato line. There isn't much verbal immediacy in his treatment of the Schumann songs, however, though the breadth of his style is often an awesome distraction. But Kilpinen, a fellow Finn, gives him greater confidence, it would appear. Talvela attacks these songs with a gusto and freedom from inhibitions one does not feel in the case of the Schumann. Irwin Gage is a sensitive accompanist, but his rhythmic instincts are not very subtle and he can do little to mitigate the generally stodgy air that hangs over this recital. Texts and translations. D.S.H.

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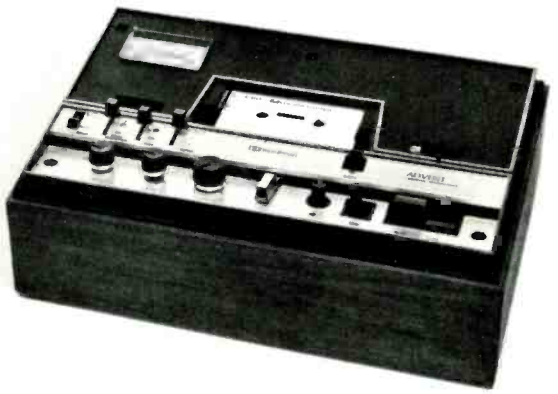

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Julian Hirsch, *STEREO REVIEW*

"Well, I have tested it and used it. And I can state categorically that it represents the finest cassette deck available—one that is not likely to be surpassed in the near future."
Larry Zide, *STEREO & HI-FI TIMES*

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HIGH FIDELITY

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Julian Hirsch, *STEREO REVIEW*

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Larry Zide, *STEREO & HI-FI TIMES*

"In making recordings from discs and FM—both at the time of preparing the original report and in the intervening months—we find that the 201 documents the premise that the sound of state-of-the-art cassette equipment need make no apologies whatever to the better open-reel decks."
HIGH FIDELITY

"Summarizing, the Advent 201 is a tape deck of superlative quality. It is difficult to imagine how its sonic performance could be substantially improved."
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4-channel discs/tapes

BY ROBERT LONG

Q-Disc Classic. At last, a recording of real musical importance on Quadradiscs: the Shostakovich Symphony No. 15 with Ormandy and the Philadelphians (RCA Red Seal ARD1 0014, $5.98) reviewed in depth on page 74. Heard quadraphonically with a JVC CD-4 cartridge and demodulator, the Fisher 504 receiver, and four Onkyo Model 20 speakers it sounds quite magisterial.

The perspective is mostly conventional: The orchestra is arranged in the usual pattern at front, with the back channels saved for ambience. The one exception (due to my room?) is that some percussive sounds tend to move toward the back-left speaker. Otherwise the spatial sense is that of the concert hall; it should delight those who want big concert sound but don't want to be on the podium.

The Broadway-Cast Albums. The most convincing quadraphonic recording of a Broadway-cast album that's come my way so far is *Company* (Columbia SQ 30993, $6.98). While it doesn't sound literally like a theater performance, the quadraphonic placements make musical sense—that is, they project the sense of the score (and the lyrics), not merely distribute the original tape tracks around the room in arbitrary fashion. As a result there's real excitement in the album, and it reconfirms my feeling that the four-channel medium should be able to help Broadway scores escape from the patness—the canned-ness if you will—that can make the recording seem like a pale reflection of the theater performance.

Purlie (now out in Q-8 cartridge—Ampex L 70101, $7.98—as well as in the Ampex SQ disc reviewed in April 1972) also has excitement, but it derives mostly from the performance itself. The quadraphonic distribution of musical forces adds space and differentiation but no real distinction or (thank Heaven) gimmicks.

Hair (RCA OQ8 1038, $7.95) was among the first Q-8 cartridge releases. It's a natural for quadraphonics. The sound has no particular theatricality, but then *Hair* is anything but a conventional theater piece. The cast seems perfectly at home scattered around my living room.

Hello, Dolly! (RCA OQ8 1006, $7.95) is entirely different as a show—extremely (and delightfully) artificial for one thing, and utterly theatrical. The arbitrary placements that RCA has chosen for the Q-8 mix prevent any sense of the theater, however. And when Carol Channing and company are made to waltz around the room in *Dancing*, the effect can only be described as cheap.

Compare this with *No, No, Nanette* (Columbia SQ 30563, $6.98). It's also a stagy show and every bit as artificial in its way as *Dolly*. Yet there's a cohesiveness to the quadraphonics that lets you get at the show's charms with less interference from the engineering. The big tap dance number (to *I Want to Be Happy*) may be a bit much with the light fantastic being tripped all about you, but thanks to memories of Busby Berkeley's Hollywood years, his Broadway offering makes a delightful sense of its own when presented this way.

Why does the dancing work for *Nanette* but not for *Dolly*? It's a question of the sound image that each presents. *Dolly* suggests isolated groups of instruments or singers that the engineer has placed here or there with respect to the speakers; Columbia's sound suggests one orchestra and one huge chorus line—spread out all around you, but all working together. If neither image is really theatrical, *Nanette*'s is at least phonographic: Its values are chosen for their effectiveness in home reproduction. And that, perhaps, is the highest praise possible. If so, it applies as well to *Company*, whose more modern and intimate idiom moreover permits some synthesis of phonographic and theatrical values.

Some RCA Pops Q-8s. If you're looking for Q-8 cartridges that make effective use of the medium for popular music, you might try "Mammy Blue" by Hugo Montenegro (PQ8 1861, $7.95) or "Somethin' Else" by Danny Davis and the Nashville Brass (PQ8 1692, $7.95).

The Danny Davis album is pleasantly swinging. While Davis' playing may remind you of Al Hirt, the backgrounds—with their strong country flavor—won't. Montenegro is much more urbane. To me his concoctions have too little meat and too much seasoning, but they're effective—and an effective vehicle for quadraphonics. Both are very well recorded: The Davis album is rich but natural in balance, while the large Montenegro forces come through with appropriate brilliance. I prefer the less aggressive Davis, but you may not.

Another successful RCA pops album on Q-8 is "The Best of the Guess Who" (PQ8 1710, $7.95). While specifically rock in idiom, the Guess Who is fitted into the quadraphonic perspective in much the same way as the other two groups: fairly close-to with a nice sense of space and without undue forcing of the quadraphonic effects. All surround you with musicians, and all make that approach work. The sound is cohesive (that is, it does not suggest arbitrary and artificial placements) so that you hear music, rather than quadraphonics. ●

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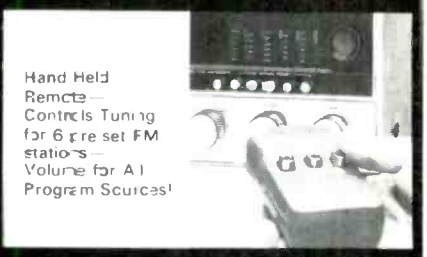

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JAMES TAYLOR: One Man Dog. James Taylor, guitar, vocals, songs. Rhythm accompaniment. *Nobody But You; Don't Let Me Be Lonely Tonight; Little David*; fifteen more. Warners 2660, $5.98.

It is a phenomenon of pop music that, among established artists, excitement is tied up with continual growth. Traditionalists deplore this pop criterion, circa 1972, circa Future Shock. They use it to "prove" rock's superficiality, its change-for-change's-sake core. While this shallowness exists in pop music, it is foolish to blot out all for some. The fact is that growth can be more than mere change, and change can be a great deal more than exploitiveness. It depends on who is doing it at what point and for what reasons. Satisfying pop albums are made by artists who are simultaneously growing and maintaining their own unique thread of self-definition, their human strength, whether studied or intuitive or both. The Beatles were masters at this process. Each album was different but the same, experimental but self-sure.

Joni Mitchell's new album is superb because she has grown while maintaining her essence and because she has the heart to take chances. James Taylor's new album is disappointing because he has stood still, thus automatically falling back onto himself.

My copy of the James Taylor album arrived with no accompanying information except song titles (there are eighteen, mostly short), the names of the writers, publisher, and producer. No musicians are listed, no studio or engineer. Perhaps it was an error in packaging. Perhaps Taylor is feeling secretive or indifferent. Perhaps the album sprang full-grown from the sky.

But we do know that James Taylor recently married Carly Simon, and both of them have said that they feel too good to do much work. For me, happiness is better than work, and I am glad for them.

But here we are with this new album (if indeed it is new: much of it may be unreleased old material). I suspect that it was made solely to fulfill a contractual obligation, as are so many commonplace albums made by noncommonplace artists such as Taylor. Oceans may open, after all, land masses may split, love may save a human life, but business goes on.

There is nothing wrong with Taylor's new album and nothing fresh. One track has already become a hit single. He sounds safe and fine and charming. He does not sound involved. The songs are only fair, considering his earlier work. Had Taylor not spoiled us with his earlier streak of inspiration, the album might not even sound flat. But I already have this album. I got it last year. James Taylor is not to be written off. He will probably come back strong when he's ready. As far as I'm concerned, this album is a rip-off.

Joni Mitchell's new album is the opposite of James Taylor's. Indeed, with this set, she becomes her own art form. No one else comes near her or even tries. I'm not even sure this is a pop album. It is nearly a concert piece—a series of songs that become a whole through sheer originality. A friend of mine, a composer himself, said, "There is a leanness about her. She makes it hard to take even Carole King or Laura Nyro seriously." He is right. Miss Mitchell has disregarded everything that is extraneous and has given us marrow.

Surely Miss Mitchell's voice has never been so beautiful nor so relaxed. My friend also said, "It isn't fair that somebody who sings and writes that well should play that well too." Miss Mitchell has always had such a flawless sense of tempo that she has brought off entire albums without even using a rhythm section, whether playing guitar, dulcimer, or keyboards. Her piano playing, always original in style, is even stronger now. She has been practicing.

She has done interesting things here with background voices (all her own). For one thing, she has enormous vocal range, probably two-and-a-half usable octaves, far more than most nonclassical singers. But it is her placement of the chorus that is individualistic, as well as her harmonies. All is unexpected and sparse. In *Cold Blue Steel and Sweet Fire*, the chorus appears only on the repeats of a single line. "Do you want to contact somebody first?" The harmonies are strange and gripping.

Miss Mitchell has come to terms with the technical problems of syntax. She discards all rules. There are no conventional lyric rhythms or rhymes. There are only thoughts and images married indescribably to musicality. Such writing has never worked before. It rambles and ranges and strays. It is not always cohesive. It is only compelling.

Certain thoughts ring out immediately. In *Barangrill*: "Three waitresses all wearing black diamond earrings./talking about zombies and Singapore slings./no trouble in their faces./not one anxious voice./none of the crazy you get from too much choice./the thumb and the satchel or the rented Rolls-Royce . . . ."

Ironically, in terms of this double review, many of Miss Mitchell's songs are about James Taylor, with whom she was once very close. *See You Sometime* says: "I'm not ready to change my name again./but you know I'm not after a piece of your fortune and your fame./'cause I tasted mine./I'd just like to see you sometime." And *Lesson in Survival*: "Maybe it's paranoia./maybe it's sensitivity./Your friends protect you, scrutinize me./I get so damn timid./not at all the spirit that's inside of me./Oh baby I can't seem to make it with you socially./there's this reef around me . . . ." That Miss Mitchell finds the courage for such songs is her own burden. She has included her own kind of Top-40 tune called *You Turn Me On, I'm a Radio*. It rolls and flows with country feeling.

While her first albums were strictly solo efforts, Miss Mitchell has begun to add a few carefully chosen musicians. This time she includes Tom Scott, Russ Kunkel, Graham Nash, Stephen Stills, and a few others. Tom Scott's contribution is extraordinary. He weaves in and out and around her with transparent combinations of woodwinds and saxophones. As always, engineer Henry Lewy's

Manufacturers often talk and write about performance specifications, particularly their wide frequency range, as an indication of their equipment's quality. But how does this relate to "listening quality"? Speaker manufacturers publish nearly identical specifications—but these are of interest only as theoretical abstractions, since no one can significantly relate them to "listening quality."

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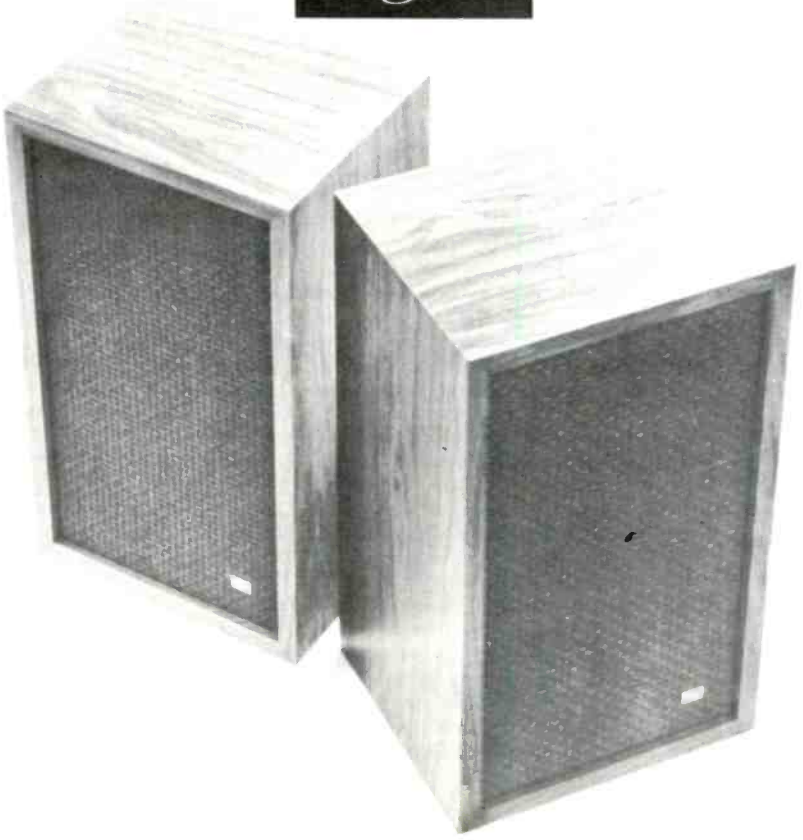

ADVERTISING INDEX

contribution is loving, expert, and Joni-wise. The recorded sound is particularly beautiful.

I suspect that part of Miss Mitchell's freedom is related to her managers, Geffen and Roberts (listed under Direction), who have a way of making their special stable of artists feel particularly safe and at home, plus Miss Mitchell's new recording situation with Asylum Records, a company run by Geffen and Roberts and distributed by Atlantic.

It is easier to write about what is not important in music than what is. If you have not really experienced the world of Joni Mitchell, you are missing something precious. M.A.

TOMMY. The London Symphony Orchestra and Chamber Choir; guest soloists. *Overture; It's A Boy; 1921; Amazing Journey; Eyesight to the Blind; Christmas; Cousin Kevin; The Acid Queen; Underture; Do You Think It's Alright; Fiddle About; Pinball Wizard; There's A Doctor; Go to the Mirror; Tommy Can You Hear Me; Smash the Mirror; I'm Free; Miracle Cure; Sensation; Sally Simpson; Welcome; Tommy's Holiday Camp; We're Not Going to Take It; See Me, Feel Me.* Ode SP 99001, $11.96 (two discs).

If it were possible to pick *the* one outstanding achievement of rock, it might well be *Tommy*, the rock opera written and originally recorded in 1968 by Peter Townshend and the Who.

In addition to being the first, full-length, plotted construction by a rock group, *Tommy* started the rock-opera syndrome of the past few years. The Who's two-disc set of this rock opera is a reasonably hard-rock version. A ballet company later used this version as the basis for a dance. Now, the second recorded version of *Tommy* has been released. It's a mammoth production that attempts a classical treatment of rock, a curious counterpoint to the many rock treatments of classical themes. The London Symphony Orchestra and Chamber Choir is conducted by David Measham, a Leonard Bernstein protégé; but the vocal parts are sung by pop singers: Sandy Denny (the nurse); Graham Bell (the lover); Steve Winwood (the father); Maggie Bell (the mother); Richie Havens (the hawker); Merry Clayton (the Acid Queen); Ringo Starr (Uncle Ernie); Rod Stewart (the local lad); Richard Harris (the doctor). From the original cast, Roger Daltry sings the part of Tommy; John Entwhistle the part of Cousin Kevin; and author Townshend is the narrator.

This meld of symphony orchestra and chorus, classical arrangement, and rock voices is a fascinating experiment, but unfortunately it amounts to little more than that. Though it far surpasses all previous classical-rock fusions, it suffers from the same lack of cohesion that mars the others. It has yet to be proved whether this blend of classical and rock can be successful, and from the evidence thus far presented, I doubt it.

The classical arrangement is, for the most part, competent, though a bit shallow in parts, and downright clumsy here and there, particularly when it tries to rock. The pop vocalists—and this is *Tommy*'s greatest fault—are largely buried in the arrangement. With two or three exceptions—Richie Havens, Maggie Bell, and Richard Harris—the pop voices are dimmed by the lush musical background. The attempt to blend classical music with pop voices seems merely a commercial ploy, to make the package appealing to both audiences. But I think it would have been better if the rock end had been scrubbed and if it had been recorded with Broadway musical-type vocalists such as Richard Harris. With singers like Harris, the entire production would have been more successful, if a bit less salable.

But I'm glad it was done. It is by far the most serious consideration yet given a rock piece. The graphics accompanying the two-disc, boxed set are the best I've seen in a long, long while. M.J.

LOUDON WAINWRIGHT III: Album III. Loudon Wainwright III, vocals and guitar; strings, rhythm, keyboards, and horn accompaniment. *Dead Skunk; Red Guitar; East Indian Princess*; nine more. Columbia KC 31462, $5.98.

Records sent to reviewers are usually accompanied by reprints of articles that extol the virtues of the artist captured on wax. In Loudon Wainwright III's case, every reprint is always a rave. Wainwright's first two albums have been greeted with hurrahs, and it is astounding that the public doesn't know him. His third LP, his first for Columbia, is even better than his first two, and may be just the disc that will gain him a large following. Here, once again, is Wainwright's piercing, agonized voice, and his sensitive funny-sad songs. His melodies here have been tastefully arranged and played by White Cloud, a skillful, imaginative rock band. This musical backing makes Wainwright's perceptive, plaintive talent an even more impressive package.

Every song on this disc, including the number that Loudon did not write, *Smokey Joe's Cafe*, is a gem. For example, *Needless to Say* is a compassionate statement about human values; *Drinking Song* is a sad-sweet song about alcoholism; *Hometown Crowd* is an ode to sports; the banjo-crazed *Dead Skunk* deals with a dead skunk; *East Indian Princess* is a witty comment about geographical differences; *New Paint* is a song about romance in which Loudon writes: "Don't make a hullabaloo./I'm not the hoi polloi./I'll try any trick and I'll pull any ploy/I'm a used-up twentieth-century boy. . . ."

I hope I don't get a reprint of this review with Loudon's fourth album encouraging me to write a rave in the hope that Loudon's career gets off the ground. This "used-up twentieth-century boy" deserves a hearing and he deserves it now. H.E.

RITA COOLIDGE: The Lady's Not For Sale. Rita Coolidge, vocals; rhythm accompaniment. *My Crew; Inside of Me; A Woman Left Lonely*; seven more. A&M 4370, $5.98.

There's a witchery about making record albums. You don't really know if you "got it" until you've got it. Even then, it may take a while to figure out if you really did what you wanted to do. In the record business, whole companies can die of good intentions and scratch their heads as they're getting buried. Look at Playboy Records.

For those of us who enjoyed Rita Coolidge and knew she was good even though she had not made a good album, this is a pleasant moment. Somehow or other Miss Coolidge, pro-

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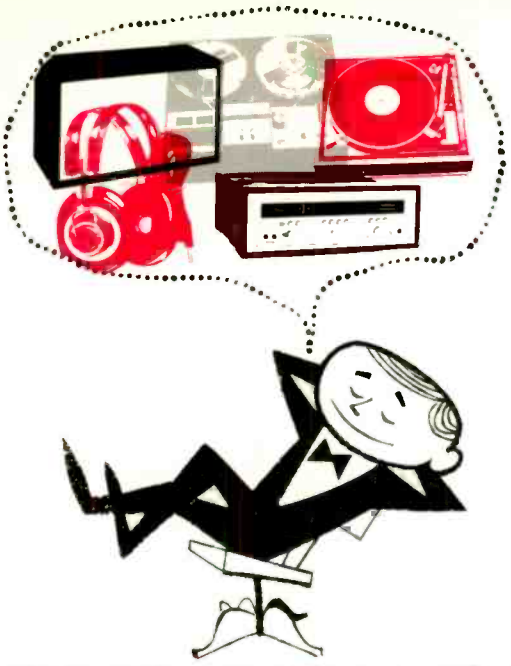

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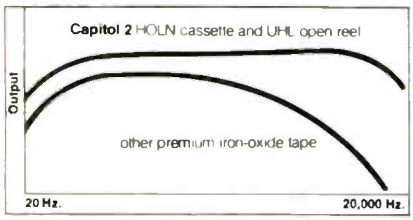

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The light color is the result of taking the carbon out of the oxide side of the tape. Carbon doesn't help the recording properties of tape in any way. But other manufacturers are forced to use it in order to achieve good static properties. Capitol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

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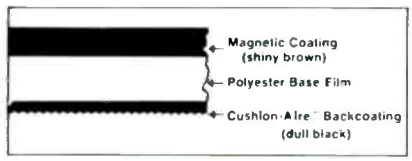
Just as the side of the tape that touches the heads should be smooth, the texture of the back of the tape should have a controlled roughness that improves handling characteristics.

So Capitol puts the carbon into its new Cushion-Aire™ backcoating. The new black backcoating not only prevents electrostatic charges from building up, but improves the handling



characteristics of our reels, helps make our cassettes jamproof, and extends the tape life considerably.

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Capitol 2 UHL is the perfected reel tape. At 15,000 Hz (at 3¾ ips) the new tape is, on the average, 4.5 dB more sensitive than the top tape made by the best known brand.

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Capitol 2 cassettes aren't just the best iron-oxide cassettes you can buy (at least 6 dB more sensitive than conventional premium tapes at high frequencies, where it really counts). For many reasons, they're the best *cassettes* you can buy.

Capitol 2 HOLN cassettes are compatible.

Say you bought a good cassette recorder two years ago. You can't use chromium-dioxide cassettes. But you can use Capitol 2. With the kind of results chromium-dioxide users have been bragging about ever since it came out. The new iron-oxide cassettes will improve the sound of any cassette recorder in the house, from the old one you gave to your kid, to the new Dolby-ized one you bought yesterday.

Capitol 2 HOLN cassettes are jamproof.

The Cushion-Aire™ backcoating not only improves cassette winding, it makes cassettes jamproof.

The texture of the backcoating assures that the tape will always wind smoothly with no steps, protruding layers, and other pack irregularities that cause, among other things, jamming.

So Capitol 2 HOLN cassettes just don't jam.

The perfect cassette package: the Stak-Pak.™

If you've ever tried to locate a cassette in a hurry, or pick one from the bottom of a pile, or put one away in an orderly fashion, you'll appreciate the Stak-Pak.

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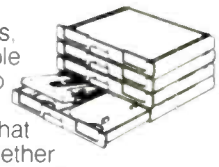

The Stak-Pak is, very simply, a double drawer. It holds two cassettes. But the unique part of it is that Stak-Paks slide together and interlock to form a chest of drawers. The more you have, the higher your chest of drawers. Each cassette is neatly filed away in its own drawer.

The world's most acclaimed cartridge.

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CIRCLE 42 ON READER-SERVICE CARD

ducer David Anderle, and A&M Records have managed to come up with an album that is first-rate.

One major reason for the comfortableness of this album is that everybody toned down. Because of Miss Coolidge's happy associations with such hard-driving artists as Joe Cocker, her first solo albums really hit it. They jumped into the heavy-energy market. But with this album it is evident that Rita Coolidge is not really a jump-and-runner, though she can do that. She is soft and intimate, bluesy and sweet.

The set boasts the best-yet version of *Bird on the Wire*, a mournful and reflective song by Leonard Cohen. Other highlights include Dylan's honky-tonk classic, *I'll be Your Baby Tonight* and Marc and Irvin Berno's *Donut Man*. Even Peggy Lee's standby, *Fever*, takes on a new sexiness.

The fact that this is Rita Coolidge's best album may not bode well for her commercially. A&M was probably happier about her when she promised to be a shouter. That's where some of the big bread is these days. Instead she turns out to be low key and high quality. This is the sort of album that gets high critical praise (it already has) and low sales. That drives record executives crazy. While companies can have some fun, corporations by nature cannot. A&M has recently incorporated. *Sayonara.*

We can always hope that Rita Coolidge will come up with a hit by way of apology for such a quality album. Her earthiness makes it altogether possible that she will. One hit single will allow her a few albums on her own terms. One hit and the promo department knows how to run with her. But no hit puts her on the terms of the corporation, productionwise. That's biz, after all.

At the least, we have a fine album. Let us hope the spiral goes upward instead of down.

M.A.

SHAWN PHILLIPS: Faces. Shawn Phillips, guitars, sitars, and vocals; horns, keyboards, strings, and rhythm accompaniment. *Landscape; 'L' Ballade; Hey Miss Lonely*; five more. A&M SP 4363, $5.98.

Shawn Phillips is a very special critic's baby and he deserves each and every word of praise that he's received. Listen to "Faces," his fourth solo LP. Phillips' songs are riveting. They are so very complicated, personal, and unique, that they require a second and third hearing for total comprehension. They'll get that also because they deserve it. Subtly backed here by a number of fine musicians including Steve Winwood, Phillips once again displays his uncanny skills with electric, twelve-string, and acoustic guitar. He's one of the few who can conjure up a whole orchestra with one instrument. In addition, his voice is as emotive and versatile as it ever was. This disc includes three unusually conceived, artfully performed tunes with a rock beat, *Hey Miss Lonely, We*, and *I Took a Walk*; *'L' Ballade* is seven minutes long and symphonic in feeling; *Chorale* is another seven-minute number which features Phillips singing all the vocal parts, playing all the guitars; and demonstrating his exquisite mastery of the sitar; *Parisian Plight* is a twelve-minute composition which begins with the sounds of nature—thunder, rain, birds—and then builds into a complex, fascinating song that depends on unusual repetitions to achieve its full effects. The variety is staggering; Phillips' gifts are awesome; the originality of the entire enterprise merits special commendation. "Faces" is definitely worth looking at—and listening to! H.E.

theater and film

THE RED MANTLE. Original Soundtrack. Music composed, arranged, and conducted by Marc Fredericks. RCA 4815, $5.98.

Say you're kidding. The notes specify that this is "A Classic Story—A Sensitive Score." But what this is is a product.

I have not seen *The Red Mantle* and do not know how the score works to film. But I have heard the album. Rare is the film composer whose music works both ways. Among the few are Johnny Mandel, Hank Mancini, Dave Grusin, and Jerry Goldsmith. Marc Fredericks, who wrote this score, is not among them.

We begin, appropriately enough, with the main title. I have immediate visions of Maurice Jarre and Francis Lai. Between the two of them, they have ruined an alarming number of movies for me—*Ryan's Daughter, Plaza Suite*, ad in-bloody-finitum.

As *The Red Mantle* theme runs on, I see Ali McGraw and What's-His-Name bumping through the snow in the untouching big money film, *Love Story*. Both themes are about equally touching. They sound like Italian street music. Their music gets down to business, you might say. Cash registers ring in the percussion section.

Later in *The Red Mantle* we have a song (lyric by R. I. Allen) called *When Will the Killing End?* It is well sung, studio fashion, by a young man who gets the following credit beneath the song title: "with vocal." Presumably this subcredit is included so that we will know that the singing we hear is a vocal. Thank you.

Still later we get another vocal, this time with mortal lyric by Sammy Cahn (really awful). The singer is a girl and she has a name! Judy Scott. She is about a third as good as the unnamed male singer. Same goes for the song.

In between these two vocals we have a lot of "dramer" music. What does it tell us about composer Marc Fredericks? That he likes Stravinsky. Not that he steals well, for that is a singular talent, but that he likes Stravinsky. Don't we all.

The album has yet another flavor. Television. The drama somehow reminds me of cues from "Ironsides" or "Mission Impossible," only longer and played with more musicians.

As for the orchestra. Take my wife. Please. The strings are thin and the brass flat. The recorded sound is Holland Tunnel.

The notes explain things. Fredericks is vice president in charge of all musical production at BBDO, an advertising agency, and has won a lot of CLIO awards, or jingle Oscars. He gave us Pepsi's *You've Got a Lot to Live* and many more. As a matter of fact, Mr. Fredericks is excellent at composing for radio and TV spots, a field that is more difficult than you might think.

Victor Young probably would have been rotten at composing for Pepsi. Commercially, Stravinsky probably would have been touching, original, and poisonous.

We are what we do if we do it long and well. Nearly all composers of jingles want to write filmscores. A rare few can do both jobs very well. Most can't. M.A.

JOURNEY THROUGH THE PAST. Music from the film soundtrack. Crosby, Stills, Nash & Young; The Buffalo Springfield; Neil Young; The Stray Gators; The Tony and Susan Alamo Christian Foundation Orchestra and Chorus. *For What It's Worth/Mr. Soul; Rock & Roll Woman; Find The Cost of Freedom*; eleven more. Reprise 2XS 6480, $6.98 (two discs).

Since I have not seen the film, *Journey Through the Past*, I can only assume that it deals in some way with the history of Neil Young's composing and performing career. Reassembled on this two-record set are the two most important musical organizations in Young's career: Buffalo Springfield and Crosby, Stills, Nash & Young. Neil Young fans will obviously have a field day. They will also come away with renewed affection for that seminal West Coast band of the Sixties. Buffalo Springfield, a band that fused country-and-western, folk, and rock music into something vibrant and new. Rehearing Stephen Stills' *For What It's Worth/Mr. Soul* and *Rock and Roll Woman* affirms that Stills did his best work with the Springfield. Needless to say, they all did.

When Crosby, Stills, Nash & Young take over, the writing, while not as impressive, is certainly helped by those familiar throbbing harmonies and unforgettable instrumental breaks. Along the way, Young also provides the listener with *Words*, which takes up the entire side of one LP and which seems to be a work in progress as Young pursues a number of musical ideas. His triumph, however, may very well be a perfectly lovely instrumental entitled *Soldier*.

There is enough good singing and writing here to make "Journey Through the Past" an admirable two-record set. Neil Young can be an indulgent writer and composer. He has that indulgence under control on this soundtrack to a film that I'd very much like to see. H.E.

jazz

✻ **ERROLL GARNER:** Gemini. Erroll Garner, piano; Ernest McCarty, Jr., bass; Jose Mangual, conga; Jimmie Smith, drums. *How High the Moon; It Could Happen to You; Eldorado*; five more. London XPS 617, $5.98.

Erroll Garner's records are judiciously spaced out by years rather than by months because a good Garner disc can last a long time and, as a rule, the individual tunes are of relatively little importance—the essential thing is half an hour or so of Garner at the piano. So one Garner collection tends to be little different from another. And what differences arise are likely to

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involve the technical aspects of the recording rather than his performance.

This one, however, does offer a musical difference. It includes some glimpses of Garner as harpsichordist, an instrument that he plays in a much more dry, curt fashion than the lush expansiveness of his piano work. His harpsichord turns up here on *When A Gypsy Makes His Violin Cry*, playing the role of a very sassy gypsy guitar with Garner humming along almost like Slam Stewart with his bass. And on *Tea for Two*, Garner's spare, economical use of the bright harpsichord sound against his boiling rhythm section turns the old standard into a samba that even borrows a phrase or two (and plenty of rhythm) from Perez Prado's *Pianola*. On both pieces, Garner uses the harpsichord for added color, keeping the piano available to round out the performances with typically Garnerian touches.

And there is plenty of that Garner style on the disc—most notably in Garner's addition of a current song, *Something*, to his huge bag of great standards and in a superb version of an old favorite, *These Foolish Things*. Both tunes have that vivid Garner romanticism with which he brightened up the dark little clubs on 52nd Street in the Forties. J.S.W.

ART VAN DAMME QUINTET: The Many Moods of Art. Art Van Damme, accordion; Heribert Thusek, vibraphone; Joe Pass or Freddy Rundquist, guitar; Eberhard Webber or Peter Witte, bass; Kenny Clare or Charly Antolini, drums. *Laura; Cheek to Cheek; Since I Fell for You*; sixteen more. BASF MPS 25113, $6.98 (two discs).

Here's a name out of the past—and a surprise. Art Van Damme had a fling in the late Forties and early Fifties as a very popular cocktail jazz accordionist, favored primarily by listeners who liked to think they were jazz fans but could not stomach most jazz. Van Damme's performances were usually gently swingy little things that barely reached the outer periphery of jazz although he managed to keep winning jazz magazine polls as "top accordionist"—largely, one presumes, because the voters could not think of any other accordionist (Joe Mooney, who was around then too, was a well-hidden secret). Van Damme became a secret himself in the Sixties—this two-disc set is the first recording by him that I have been aware of in the past ten or fifteen years. And it is really something to be aware of because a lot of musical water seems to have flowed over Van Damme since last he was heard from. Playing with small combos of European musicians (except for one American, guitarist Joe Pass, who plays on some selections), this collection, recorded in Germany, reveals a new Van Damme, an accordionist with jazz qualities that were rarely evident before, one who has obviously been listening to Joe Mooney. His phrasing on ballads is now much like Mooney's, giving these slow tunes the delightful rhythmic jabs that is one of Mooney's charms. And on the faster pieces, he gets some interesting voicings with accordion and guitar that give the performances a strong ensemble color. Although the most provocative aspects of the album are those that reflect Mooney's influence, Van Damme does well on his own in some of his fleet-fingered exercises. Maybe with this set as a reminder, somebody will get Mooney into a studio once more. Until then, some—but not all—of the pieces in this collection can show how persuasively an accordion can swing. J.S.W.

CECIL TAYLOR-BUELL NEIDLINGER: New York City R & B. Cecil Taylor, piano; Buell Neidlinger, bass; Billy Higgins or Dennis Charles, drums; Archie Shepp, tenor saxophone; Clark Terry, trumpet; Roswell Rudd, trombone; Steve Lacey, soprano saxophone; Charles Davis, baritone saxophone. *O.P.; Cell Walk for Celeste; Cindy's Main Mood; Things Ain't What They Used to Be*. Barnaby KZ 31035, $5.98.

For most of the past ten years, Buell Neidlinger has been out of jazz, playing in symphony orchestras and teaching, currently at the California Institute of the Arts. But from 1957 until 1962, Neidlinger played with Cecil Taylor and gave him a strong functional core. This record, made in 1961 for the Candide label but never released before, was Neidlinger's date; but since three of the four selections are trio and quartet numbers with Cecil Taylor, it is stamped very strongly with Taylor's musical personality.

Taylor, in those days, was a more traditionally organized pianist than he has been in recent years, and his playing all through this disc is warm and melodic, even in some relatively spiky passages with Archie Shepp on *Cell Walk for Celeste*. Neidlinger also brought together for this date a remarkable eight-piece band to play Mercer Ellington's *Things Ain't What They Used to Be* in an arrangement by Neidlinger and Roswell Rudd. The piece is developed with an austere serenity through Rudd's trombone, Steve Lacey's soprano saxophone, Taylor's piano (he is Ellington-derived and settles into an Ellington mood very easily), balanced by the swirls and slashes of Archie Shepp's saxophone. In the midst of it all, up pops Clark Terry sounding, for once, as though he cannot really think of anything to do. J.S.W.

CHARLIE CHRISTIAN: Solo Flight. Benny Goodman Sextet; Benny Goodman and his Orchestra; Charlie Christian Quintet; Metronome All Stars. *Rose Room; Air Mail Special; Star Dust*; twenty-five more. Columbia G 30779, $5.98 (two discs).

In view of the influence that Charlie Christian had on the course of jazz—he established the electric guitar at the expense of the acoustic guitar, turned the guitar into a viable solo instrument, and created a style that was so pervasive that it was followed religiously by every jazz guitarist for twenty years—there is remarkably little of him on records. His entire recording career, except for some acetates made at Minton's—a career covering a period of less than two years—is contained in this two-disc set. Most of it will be familiar to Goodman or Christian fans.

In addition to the performances with the Goodman Sextet, Christian's official home within the Goodman troupe, it includes the previously issued warm-up excerpts—*Blues in B* and *Waitin' for Benny*—and Christian's one showcase with the full Goodman band, *Solo Flight*; also included is his only other appearance on record with the band, *Honeysuckle*

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Rose, as well as a recording with the Metronome All Stars of 1940. What is new here are three pieces recorded on acetate at a jam session in Minneapolis in 1940 with Jerry Jerome, one of Goodman's saxophonists, Frankie Hines on piano, and unknown bassists and drummers. The recording is reasonably good, considering the circumstances, and the performances are interesting, not only for Christian's contributions but for the opportunity to hear the generally underrated Jerry Jerome. J.S.W.

in brief

FLUFF. Roulette SR 3011, $4.98.
AM enthusiasts will probably enjoy this disc, the debut effort of a hard-rock quintet from New Jersey. H.E.

AL GREEN: I'm Still in Love With You. Hi XSHL 32074, $4.98.
Al Green has the most soulful falsetto in the entire rhythm-and-blues field. Listen to *Love and Happiness*; then join the converts. H.E.

LENNY DEE: Where Is the Love. Decca 75366, $5.98.
The notes say: "Back in 1955, Lenny Dee recorded *Plantation Boogie* and brought the organ out of the church. . . ." It's time Lenny brought it back. The album is a church social, vanilla-flavored white bread. I can't imagine who in the world would pay good money for it. M.A.

SOLID GOLD ROCK 'N' ROLL, VOLS. 1 AND 2. Mercury SR 61371, $4.98 each (two discs).
Two LPs of rock oldies ranging in time from about 1955 to 1969. All of these songs came from Mercury or one of its labels, so the selectivity can be held in question. The two collections are better than most such LPs, though. M.J.

JERMAINE JACKSON: Jermaine. Motown M752L, $5.98. Tape: • M8752, $6.95; ⏏ M5752, $6.95.
A pleasant soul package from Michael Jackson's older brother Jermaine which features tasteful renditions of the standard, *I Only Have Eyes for You*, Paul Simon's *Homeward Bound*, and two Holland/Dozier/Holland soul stirrers, *I'm in a Different World* and *Take Me in Your Arms (Rock Me for a Little While)*. H.E.

THE J. GEILS BAND: "Live" Full House. Atlantic SD 7241, $5.98.
This group is probably America's best new rock-and-roll band and this disc does indeed capture some of their in-person power. H.E.

JOHN DAVID SOUTHER. Asylum SD 5055, $5.98.
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the tape deck

BY R.D. DARRELL

The Turning of Two Tapeworms. For well over a year and a half I've been a fascinated "letterary" follower of two enterprising tape collectors' plans for "doing something" about the special handicaps under which they and fellow open-reel aficionados have been laboring in recent years. With energy and optimism undrained by their quotidian Wall Street business lives, they've been working to meet what they feel are the aching needs not only for a mail-order firm specializing in open reels but also for a more detailed and comprehensive catalogue (with regular updating supplements) of the available reel repertory than any that are now extant.

Initially incredulous about so quixotically specialized a venture (I even queried facetiously whether the two men involved were not actually metamorphoses of the two girls who write imaginative mysteries under the name of "Emma Lathen"), I gradually became convinced of Messrs. Barclay's and Crocker's sincerity as well as reality . . . did my best to supply whatever advice and odd bits of cataloguing information I could . . . and now welcome the first fruits of their endeavors. These are a handsome 96-page catalogue and a 4-page first "Reel News" supplement, both devoted exclusively to open-reel tapings. Classical releases are listed numerically by label, with full composer and complete-opera cross-references; pop releases are listed by artist and by miscellaneous categories; and in general there is far more detailed information provided (for the classical programs in particular) than is usually supplied elsewhere. Indeed I have only two complaints: a minor one about the printer's failure to supply foreign-language accents, a major one about the uncharacteristic lapse into the terminologically barbaric usage of "***-recorded" when just recorded tapes are meant. But of course neither flaw seriously diminishes the value of this catalogue to open-reel collectors, who may obtain it for $1.00 from Barclay-Crocker, 11 Stone Street, New York City 10004.

"Ampex II" Reel Processing. In addition to providing its own mail-order service and catalogue (confined of course to the labels it represents, and including cassette and cartridge as well as reel releases), the Ampex Corporation continues its vital contributions to the Renaissance of the Reel movement by announcing a whole series of technological advances. These include, besides occasional Dolbyized reels, the use of new low-noise, high-output tape stock for all future reel releases, new solid-state duplicating equipment, and various new mastering techniques designed to meet higher quality standards. Last month I commented on the first Dolby-B reels. And my first test of "Ampex II" technology (in comparing old and new processings of the celebrated 1964 Ansermet versions of Respighi's *Pines* and *Fountains of Rome*, London L 80129) confirms at least the substance of the claims of technical improvements. Perhaps not all the potential S/N-ratio increases are consistently achieved, but some are immediately evident, and these, together with the higher average modulation levels permitted by the tape-stock and duplication-technique changes, are genuine steps forward.

I must qualify that praise only slightly to note that they are most dramatically successful only when the "Ampex II" techniques include Dolbyization . . . that even the best results still *can* be blemished by such old processing bugbears as pre-echo, reverse-channel spillover, and high-frequency distortion . . . and that optimum progress still depends on absolute quality-uniformity among duplicate copies of the same recorded performance. And judging by reports I receive from both colleagues and "Tape Deck" readers, such uniformity is as yet by no means always achieved—by Ampex or any other manufacturer.

Promises to Keep. I should have known better than to promise, in the last issue, a report on the first RCA/Stereotape reels before I actually had them. The delays in getting any new major project under way are producing corresponding commentary delays—but both review copies and reviews should be along soon. Meanwhile, I *can* keep my promise to report on more of the first Ampex releases of Dolbyized reels—all of them, in fact, except the two I haven't received: Kubelik's Mahler Fifth (DGG K 42056) and Solti's Mahler Eighth (London K 49011).

I've already discussed the conventional processings of Thomas' Piston/Schuman coupling (now DGG L 43103), Ashkenazy's and Maazel's Scriabin, Solti's Mahler Sixth and Seventh Symphonies (London L 480251, K 480231, and K 480249 respectively). All of these new versions demonstrate the incalculable benefits of Dolby-silenced backgrounds, but the Scriabin and Mahler Seventh reels have long A-side blank beginnings which must be skipped to avoid spillover intrusions. I deliberately avoid commending two other releases—the Dolbyized versions of Abbado's Tchaikovsky Fifth (DGG L43198) and Leinsdorf's Stravinsky *Petrushka* (London L 475058). In spite of their admirable technical qualities, I can't overcome my aesthetic objections to Abbado's romantic mannerisms or to the unexpectedly dry and harsh Phase-4 sonics of the Stravinsky ballet.

I have strong aesthetic misgivings too about Stokowski's approach to the Franck Symphony (now London/Ampex L 475061, $7.95; also non-Dolby reel L 75061, Dolby cassette M 94061, 8-track cartridge M 95061). But who's going to worry about aesthetics when Franckian warmths are so lovingly fired to white heat by uninhibited Stokowskian expressiveness? Especially since here the Phase-4 sonics are ineffably luscious, and for good measure the Old Sorcerer gives us a piquant appetizer to the Franck Feast in the form of the Ravel Fanfare for the children's ballet, *L'Eventail de Jeanne*.

But Musicassettes Still Flourish—particularly under the aegis of Columbia, the only major manufacturer (in the U.S.) to Dolbyize *all* its cassette releases. One that effectively utilizes Dolby noise-reduction means and magnificently "big" sonics is Vol. V of the E. Power Biggs "Bach Organ Favorites" series (Columbia MT 31424; also MA 31424 cartridge; $6.98 each). Biggs's program here sometimes ventures off the most-beaten paths to include the Preludes and Fugues in G minor, S. 542, B minor, S. 544, and C, S. 545; the long glittering Fantasy in G, S. 572; and two Chorale-Preludes, S. 753 and S. 680—the latter also known as the "Giant Fugue."

Scarcely less impressive in their own way are the very different—taut, intense, lucid—sonics of the Bartók/Boulez coupling of *The Miraculous Mandarin* (in its seldom recorded complete-ballet, not suite, version) and *Dance* Suite (MT/MA 31368, $6.98 each). The ballet, especially, is far from easy listening, but it's well worth grappling with.

Boulez again conducts, but with the Cleveland Orchestra rather than the New York Philharmonic, for Entremont's Ravel concerto for the left hand which provides the new half of a coupling including the Entremont/Ormandy/Philadelphia Ravel Concerto in G which dates from 1964 but which has not been available previously in any tape edition. What is fascinating here is not only the contrast in audio-engineering characteristics (with both improved tonal qualities and acoustical ambience in the newer recording) but the differences in Entremont's playing—a bit slapdash and hard-toned in the Concerto in G, notably more disciplined and eloquent in the work for the left hand only (Columbia MT/MA 31426, $6.98 each).

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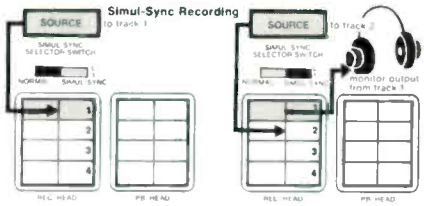
Simul-Sync: what it does and how it works



Overdubbing has become a familiar term to every knowledgeable musician. Simply, it means a) recording a voice or instrument on one track of a multi-track tape machine, b) adding another voice or instrument to a different track at a different time, and c) matching the two tracks so it sounds as if they were recorded simultaneously when played back. To overdub properly, the artist recording on the second track has to listen to the material recorded on the first track while performing in perfect synchronization to it.

That's where the problem occurs with most tape recorders. Conventional record/playback monitoring systems only let you listen to the previously recorded material off the playback head. That means a time delay between the track being recorded and the track being monitored. A small delay, to be sure, but large enough to make perfect synchronization virtually impossible.

TEAC engineers solved the problem with Simul-Sync. They designed a studio-tolerance 4-channel record head, then added electronics that allow each track on that head to be switched independently to either record or playback modes. By doing so, they completely eliminated the time lag and permitted the artist to add track after track—all in absolute synchronization with each other.

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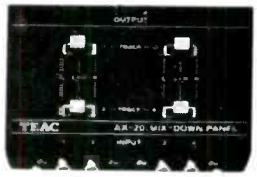

3. Special effects. Enter the world of psycho-acoustic phenomenon where the creative juices can really start flowing. Things like echo, cross echo, 4-channel rotating echo and pan pot effects (with AX-20 Mixdown Panels). You can put echo on some instruments and not on others. One-man group arrangements, with a single artist playing all instruments and singing all vocal parts. Backwards recording, an effect that gives any instrument a totally new sound. Dual speed recording, mixed down in perfect sync. With all these effects at his disposal, the professional musician can quickly save the cost of a 3340 in reduced studio experimental time alone.

4. Pseudo-quad recording through ambient delay to the rear channels. And, of course, full discrete 4-channel record and playback.

5. Are you creatively curious? If so drop TEAC a line, and ask for the "Meet the creator" booklet. It describes all of the 3340 effects in detail and explains how each is done. And it's free.

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