PROGRESS REPORT ON QUADRASONICS
Big, acoustic-suspension woofers.

All Fisher speaker systems use a larger-than-you'd-expect acoustic-suspension woofer. An exclusive free-piston design, coupled with an extremely compliant butyl rubber or butyl-impregnated surround and a specially treated cone, allows a fundamental bass response down to 30 Hz without distorting or disturbing. As an additional measure of their quality, the free-air resonance of Fisher woofers ranges from 38 to a remarkable 10 Hz.

The voice coil is specially designed to handle plenty of power. Loudness woofers range from 38 to a remarkable quality, the free-air resonance of Fisher speakers is identified as an essential to the characteristic natural sound. Fisher tweeters incorporate a soft dome diaphragm. Their impregnated cotton or formed mylar construction eliminates parasitic high-frequency resonances and the resultant coloration of sound.

Even the crossover networks and enclosures are special.

In a Fisher speaker system nothing is taken for granted. We know that unless each speaker does exactly the job it was designed to do, no more, no less, the overall sound will suffer somewhat. So we've designed band-pass filters, which, when used in place of conventional roll-off networks, assure that each speaker will handle only the frequencies within its optimum range. Furthermore, special quality capacitive and inductive elements are used to achieve lowest losses and smooth transition at each of the crossover points. The sharp-cutoff to 6 or 12 dB per octave networks prevent interactions at the crossover points.

All the time and effort we take getting the internal components of our speaker systems just right would be fruitless if we put it all into an ordinary speaker cabinet. That's why we've designed a better cabinet. It's constructed entirely of non-resonant compressed flake board rather than vibrant plywood, to eliminate the boxy speaker sound so common in even the most expensive plywood-cabinet systems. Our speaker systems are tightly sealed and completely filled with AcoustiGlas® to provide a high degree of damping.

These design innovations and this preoccupation with quality holds true for the least expensive as well as the most expensive Fisher speaker system.

Now, about transient response.

There are many people who believe that the ability of a cone to respond quickly—or transient response—is the single most important determinant of a speaker's sound. That's why we're pleased to tell you that by using newly developed super Alnico magnets with high flux density, Fisher woofers and mid-range speakers achieve faster, more positive control of their cones than any other speakers being manufactured today. Fisher transient response is absolutely unsurpassed in the industry.

The reasoning behind our tweeters is also clear.

Specially designed, sealed-back tweeters provide excellent frequency response beyond the limits of human hearing. By using a low-mass voice coil, highs are natural sounding as well as unusually clear and transparent. For wide dispersion, Fisher tweeters incorporate a soft dome diaphragm. Their impregnated cotton or formed mylar construction eliminates parasitic high-frequency resonances and the resultant coloration of sound.

The Fisher XP-60C, the world's finest $99.95 speaker system.

This low-cost speaker system does everything you'd expect a high-cost speaker system to do. It provides bass down to 37 Hz by utilizing an 8-inch woofer with a long-throw voice coil. It delivers smooth treble, with wide-angle dispersion up to 20,000 Hz. Crossover occurs decisively at 1,500 Hz. (Available with fretwork grille, at slight additional cost.)

The Fisher XP-65-K, the world's finest $109.95 speaker system.

A 3-way system with a lot of advantages. Bass response starts at 33 Hz, made possible by a 10-inch woofer with a free-air resonance of only 20 Hz. The midrange is handled by a 5-inch driver, responsible only for those frequencies between 600 and 3,000 Hz. At 3,000 Hz, a 3-inch tweeter with a 9/16" voice coil smoothly takes over, reproducing the audio frequencies out to 20,000 Hz. (Price includes fretwork grille.)

The Fisher XP-66C, the world's finest $129.95 speaker system.

There are quite a few speaker systems at this price, but this Fisher XP-66C challenges them all. This 3-way system uses a big 12-inch free-piston woofer with a free-air resonance of 20 Hz. Midrange frequencies are handled by a 5-1/4"-inch driver made of a new resonance-free rigid material. A 3-inch cone tweeter is used for extremely wide-dispersion and smooth upper treble. The XP-66C offers lifelike reproduction of the most complex musical passages at an ordinary bookshelf price. (Price includes lattice-work grille.)

The Fisher XP-7C, the world's finest $169.95 speaker system.

The reason that the XP-7B sounds so smooth is that it's a 4-way system. There's a massive 12-inch acoustic-suspension woofer and not one, but two 5-1/4"-inch drivers, each assigned a different section of the midrange. And there's a pair of 3-inch wide-dispersion cone tweeters. (Price includes lattice-work grille.)

The Fisher XP-9C, the world's finest $219.95 speaker system.

The Fisher XP-9C, at $219.95, is a true 4-way speaker system, as the world's finest bookshelf system positively must be. (Crossover takes place at 500, 1,200 and 5,000 Hz.) The woofer is huge; 15 inches in diameter, with a 12-lb. magnet. There's a pair of matched 5-inch midrange drivers. A hemispherical dome tweeter delivers the lower treble frequencies. A dome super-tweeter finishes the job smoothly, to the limits of audibility.

Fisher

We invented high fidelity.
Model for model, dollar for dollar, Fisher speaker systems have a wider frequency range, lower distortion, cleaner transients, better dispersion and less overall coloration than any other brand, regardless of design features or engineering claims.

The number of different loudspeaker designs offered to the prospective buyer today is nothing short of staggering. There are almost as many engineering approaches as there are manufacturers, and each particular design philosophy is affirmed to be the one true faith.

Even the sophisticated audiophile who knows his amplifiers and cartridges stands bewildered amidst the permutations and combinations of driver designs, speaker configurations, crossovers and enclosure types.

Our advice is: stop, don’t panic, listen. Because the only justification for a new and different engineering feature is the sound.

Fisher takes a completely pragmatic approach to speaker design. We say yes to anything that makes a speaker sound better. We say no to anything that only makes a speaker read better. As a result, when you buy a Fisher speaker, you’re buying sound, not some intangible hi-fi mystique.

Let’s face what the politicians would call the gut issue here. When a man puts down, say, $169.95 for a speaker system, the nagging question on his mind is: “Am I getting the very best sound this kind of money can buy?”

Fisher can confidently answer “Yes!” to that question, no matter which particular Fisher speaker is the case in point. We know all the alternatives in each price category and have evaluated them in our laboratories. We are putting our reputation as the world’s largest component manufacturer on the line with each speaker model we offer. If there were a better way of making any one of them, that’s the way we would make it.

Now let’s examine some of the engineering features that are meaningful in terms of actual sound and relate them to the specific performance characteristics of Fisher speaker systems.

If you want something done right, you do it yourself.

The Fisher philosophy of speaker production is to let one engineering team retain full control of the speaker design, from concept to shipping carton. (The alternative would be to buy woofers from one supplier, mid-range drivers from another, tweeters from still another, and install them all in a cabinet ordered from a furniture factory. There are some good speakers made this way, but we don’t think it’s the best possible method. Fisher is a high-fidelity manufacturer, not a contractor.)
Once and for all, let's clear up all the technical confusion about loudspeakers.
True Tangent Tracking
First time in an automatic turntable!
The diagram over the photograph shows how the tone arm articulates, constantly adjusting the angle of the cartridge, and keeping the stylus perpendicularly tangent to the grooves throughout the record. Space-age pivotry and computerized design have made it possible to play the record at exactly the same angle as it was cut. Reproduction is truer, distortion sharply reduced, record life lengthened.

Consider that there are 3,600 seconds of arc in a degree—and that a conventional tone arm will produce up to 4 degrees tracking error—or 14,400 seconds at full playing radius. Compare this to the Zero 100 tracking error, calculated to measure a remarkable 90 seconds (160 times lower!) and you will see why this Garrard development obsoletes the arm geometry of every other automatic turntable.

Test reports by some of the industry's most respected reviewers have already appeared, expressing their enthusiasm. These reports are now available with a 12-page brochure on the Zero 100 at your dealer. Or, you can write to British Industries Company, Dept. J 31, Westbury, New York 11590.

Mfg. by Plessey Ltd. Dist. by British Industries Co.

GARRARD ZERO 100
$189.50
(less base and cartridge)
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THE BASIC REPERTOIRE
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COVER: AT THE FOCAL POINT OF FOUR CHANNELS, MEZZO-SOPRANO JOANNA SIMON; PHOTOGRAPH BY BRUCE PENDLETON; CARPET COURTESY W. & J. SLOANE, NEW YORK
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FOUR TYPES OF COMPATIBILITY

I
n 1930, an English mathematician turned poet and critic published a book, called Seven Types of Ambiguity, that has since attained the status of a minor classic in literary criticism. I recall flagellating my mind with its slippery subtleties and quibbling quiddities in college, telling myself the while that they might all be useful some day in unraveling one of life’s little conundrums. I thought that day had surely arrived recently when I sat down to sort out for my own understanding the tangle of announcements, press releases, claims, counterclamors, assertions, evasions, rumors, gossip, and simple fairy tales that together make up the hottest audio topic of the moment—quadrasonics (-phonics, etc.). It turns out that, although of four-channel ambiguities there is no end, they seem not to be of the type that critic William Empson had in mind—they are not, in short, accessible to the tools of literary criticism, however well they may lend themselves to those of the marketplace. Nonetheless, midway along the pathway of my researches I stumbled upon a factor that permitted me to see forest where before there had been only trees. That factor is the rather elusive one of compatibility, and I suspect that it will turn out to be the central issue in the technological skirmishes (and perhaps even the main event) that are about to be joined. Moreover, it develops that working up the mental muscle required for reading Empson was apparently not an entire waste of time, for I turned up not just one kind of compatibility, but four. Three of them, it seems to me, are of the sine qua non variety, and the fourth is self-resolving. Put in question form, they are:

1. Will the new four-channel recordings (disc or tape) be compatible with “old” stereo equipment (stereo stylus, four-track tape deck, etc.), furnishing two-channel stereo sound unaltered either in quantity or quality? Will they work on mono FM radio?

2. Will the new four-channel equipment (a four-channel matrix decoder) be compatible with ordinary stereo recordings (disc or tape), reproducing them (either as two-channel stereo or as “augmented” quasi-quadrasonic) without sonic distortion? Will it do the same for mono recordings?

3. Will the new four-channel equipment offer inter-media (disc, tape, and radio) compatibility as two-channel stereo does now?

4. Will the different four-channel systems be compatible with one another—for example, will material recorded for use with the Columbia system reproduce satisfactorily on the Electro-Voice system and, vice versa?

It is obvious that, if compatibilities 1 through 3 are satisfied, 4 will in time work itself out in the marketplace. What is not so obvious, however, is that as of now there appears to be a great reluctance within the industry to discuss the subject of four-channel sound on tape. The industry seems to be toying with the idea of making discs quadrasonic in the matrix format and tapes quadrasonic in the discrete format. RCA’s Q8 discrete cartridges may have influenced some of this thinking (Columbia, at least for now, seems to be going along with it), but it obviously makes a shambles of compatibility. But there is another argument against it—an economic one—that is even stronger. When 78-rpm phonograph discs first appeared, they were recorded on only one side. Manufacturers soon learned how to double their capacity by using both sides. Next, development of the mono LP more than doubled capacity, a further doubling came with stereo, and now there is another with quadrasonic. The same progression, moreover, is evident in tape: from 15 ips originally, quadrupling capacity, a further doubling came with stereo, and now there is another with quadrasonic. The name of the game here, borrowed from communication theory, is information density. It is hardly a law of nature, but it is nonetheless an easily discernible trend—which the industry would appear to be on the verge of reversing: discrete four-channel recording takes twice as much tape as ordinary stereo. I hope that record producers are not planning on finding out the hard way that anything on a disc can be taped—even matrixed quadrasonic.
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How the Club works: In each issue of the Club magazine, DISCounts, sent FREE every 4 weeks, you will find a review of the Selection-of-the-Month in your musical division plus over 400 other albums from which you may choose. If you wish to take alternate or additional albums—or no album at all—simply mark the Selection Notice appropriately and return it by the date specified. You always have at least a full week to make your decision. From time to time, the Club will offer some special selections, which you may reject by returning the special dated form provided—or accept by doing nothing. The choice is always yours! All record purchases, with the exception of occasional money-saving clearance sales, will count toward fulfillment of your enrollment agreement. All of the above record purchases, including your introductory package are fully guaranteed. You must be delighted with your actual cost for regular $4.98 albums averages under $2 after fulfilling commitment.

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Never pay list price for a record again! The new Citadel Discount Record Club functions like a record-buying cooperative where purchasing power alone enables us to buy at lowest cost from all major recordists. These are your actual costs, based on our unique free-record-plus-discount policy. After fulfilling commitment

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<th>Record</th>
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SEND NO MONEY! DETACH COUPON AND MAIL TODAY!

CITADEL RECORD CLUB
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Please accept me for membership and bill me just $1.87 (plus shipping-handling) for my first 10 records (11th record FREE), plus $1 lifetime membership fee. I agree to buy 12 more records in 18 months at low member's price, plus shipping-handling, and I may cancel my membership any time thereafter. I understand that for each record I buy at discount price, I may choose another of equal value FREE (just 25c shipping-handling) from Club magazine, DISCounts. Also enroll me on Gold Medal Awards panel, with privileges described. All orders subject to acceptance at Club headquarters.

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- New Sound
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Mr. Mrs. Miss (please print) Address City State Zip Tel. No. 7 MA APO, FPO addresses, please write for additional information.

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FREE... Any 3 Stereo LPs or Tape with No Obligation

See for yourself why over 13/4 million record and tape collectors paid $5 to join Record Club of America when other record or tape clubs would have accepted them free.

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<th>Columbia Stereo Tape/Record Service</th>
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<td>BURT BACHRACH</td>
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<td><strong>See for yourself why over 13/4 million record and tape collectors paid $5 to join Record Club of America when other record or tape clubs would have accepted them free.</strong></td>
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<td>$4.98 LPs average as low as $1.96</td>
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<td>Savings of 63% or more from recent Club sales up to $4.32 per LP. Start these giant savings now... not after you fulfill your obligation like other clubs. You can even buy Capitol, Columbia, and RCA Victor albums at a lower average cost than through their own clubs! **</td>
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(a small handling and mailing fee for your free LPs or tapes will be sent later). If you can't find 3 LPs or 1 Tape here, you can defer your selection and choose from expanded list later. This entitles you to no obligation—and you never pay another club fee. Your savings have already more than made up for the nominal membership fee.

**NOW YOU CAN CHARGE IT!**

If you prefer, you may charge your membership fee. Your savings have already more than made up for the nominal membership fee.

**LOOK WHAT YOU GET**

FREE Lifetime Membership Card—guarantees you brand new LPs and tapes at discounts up to 79%... Never less than 1/3 off.

FREE Giant Master LP and Tape Catalog—lists thousands of all labels and tapes (cartridges and cassettes) of all labels (including foreign), all musical categories.

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If you aren't absolutely delighted with our discounts up to 79%—return items within 10 days and membership fee will be returned AT ONCE! Join over two million budget-wise record and tape collectors now.

**NOW YOU CAN CHARGE IT, TOO!**

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<th>FREE LPs</th>
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Mr. [ ] Mrs. [ ] Miss [ ]

Address_________City______State______Zip__________

All Servicemen write Soc. Sec. # ________

CHARGE IT to my credit card. I am charging my $5.00 membership fee (mailing and handling fee for each FREE LP and tape selected will be added).

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Don't just take our word for it. Read the Hirsch-Houck report in Stereo Review. Or Ivan Berger in Saturday Review.

And a smart little moustache?

- "Classical" Music is like a watermelon—rind, seeds, meat, and heart. As everyone knows, the heart is the nastiest, most succulent refreshing part of the whole bit. Well, Waldo de los Rios has canned the heart of classical music and put it on a disc called "Sinfonias." Die-hard traditionalists insist that to enjoy the watermelon "properly" it must be eaten whole—rind, seeds, meat, and heart. This is what makes classical music the stuffy, boring, dead (and financially unstable) stuff it is. I have "Sinfonias" and I have "Beethoven's Greatest Hits" with Eugene Ormandy and the Philly Orchestra, so I can play the respective versions of the "Ode to Joy" side by side. The "Sinfonias" version wins hands down. It is more alive, vibrant, and good. Ormandy's version reminds me very much of a watermelon. It is a watermelon.

J.R. Hlavac
Maywood, Calif.

Musical Barbarians
- James Goodfriend's column entitled "Barbarians and Music" (August) strikes a very responsive chord in me. While I appreciate and enjoy some "classical" rock, I cannot sit still for an outright pernicious mutation of a beautiful work of art.

Recently on the radio I heard Mendelssohn's Fourth ("Italian") Symphony reduced to approximately four minutes of garbage by somebody's Latin Rhythm Band. Yeck!! This is but one example of this group's feeble attempts to translate great works into "a more modern and meaningful style." It seems rather like updating the Mona Lisa by repaintng her with love beads, a see-through blouse, unkempt hair, and a cynical smirk.

DAVID L. REYNOLDS
Atlanta, Ga.

- It has been said of audiophiles that they are so acutely aware of the faults of the system they are listening to that they can no longer enjoy music. After reading James Goodfriend's column "Barbarians and Music" (August), I think perhaps he has become so involved with his requirement that a new arrangement be an improvement that he never stopped to see if he enjoyed what he heard! I have heard Béla Bartók's Allegro Barbaro; I have also heard Emerson, Lake and Palmer's Barbarian. As Mr. Goodfriend pointed out, it isn't an improvement per se. However, I feel that they weren't trying to improve it, merely reuse it in a simplified form. No pretense—on the contrary, recognition that Bartók's work is versatile and enjoyable in a completely different environment.

H.D. SIEFERT
Woodland Hills, Calif.

LETTERS TO THE EDITOR

The Editor replies: "Assuming that Mr. Hlavac is serious, he is quite probably alone in his contention that Beethoven's Ninth Symphony, or even the last movement thereof, is a watermelon—rind, seeds, and all. Since one bad analogy probably deserves another: to me it is a banquet, and I believe that Mr. Hlavac has settled for dessert—no, for the artificially colored and flavored cherry on top of the dessert. It is not the kind of diet I would recommend for a long musical life."

(Continued on page 10)
No doubt you’ve heard and read a great deal about the new innovations in 4-Channel. Lumped together they’re called Quadraphonics, but individually you’ll hear such words as: matrix, discrete, EV, Q-8, 4-Channel 4, and on and on. It’s enough to confuse the experts. ... And that’s why Ampex has decided to make it easy. Here in this ad we are offering to anyone interested, the opportunity to purchase (at reduced rates) a demonstration sampler of Quadraphonic Sound on tape or record as well as a FREE guide to Quadraphonics. As the world’s largest duplicator of pre-recorded stereo tapes, we have a great deal of interest in what’s happening to Quadrophonics and we think you’ll be interested in these offers.

FREE-AMPEX STEREO TAPE CATALOG

- Contains the latest Ampex Stereo Tape Listings, 88 pages of open reel, 8-Track and cassette tapes.
- Over 6,000 listings.
- Many special tape packages.
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Get all the information from Ampex by taking advantage of this free literature offer. Simply fill out the coupon below, check the appropriate box and you’ll receive your FREE copies of: the latest Ampex Stereo Tape Catalog, a Guide To Quadraphonic Sound, the latest Ampex Tape-By-Mail Bonus Catalog and the newest quadraphonic tape listings. There’s no obligation... nothing to buy... and you’ll enjoy browsing through the most comprehensive tape catalogs ever offered by Ampex Stereo Tapes.

SAVE ON... OVATION RECORDS DEMONSTRATION RECORDS AND TAPES

Enjoy the complete listening involvement of 4-channel sound with Discrete Q-8 Cartridges and Discrete Quadraphonic Open Reel Tapes or if you haven’t gone quadraphonic yet listen to improved 2-channel stereo on Ovation’s new Compatible Stereo/Quadraphonic Records. When you finally convert to quad you’ll already have an excellent library of Quadraphonic records.

These special preview tapes, cartridges and records contain a broad sampling of Ovation’s complete catalog of jazz, rock, country, easy listening, big band sounds and much more.

SPECIAL PREVIEW OFFER

- Q-8 Cartridge regular $7.95 list now $5.95 with coupon
- Open Reel regular $9.95 list now $7.95 with coupon
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TEST YOUR KNOWLEDGE OF QUADPHONICS

Here’s a short quiz to see how much you know about Quadrophonics. There’s nothing to win... but there’s nothing to lose. So go ahead and take the test.

1. What is the difference between ‘discrete’ 4-channel sound and ‘matrix’ 4-channel sound?

2. Can 4-channel sound be derived from present stereo playback equipment?

3. Which tape format is best suited for 4-channel sound?

4. Does Q-8 sound make stereo sound obsolete?

5. Is Q-8 sound better for all types of music?

6. What does ‘compatible 4-channel/stereophonic sound’ mean?

7. How much new recorded music will be available in a 4-channel format?

8. Can Q-8 tapes be played back on standard 8-track tape players with no sound loss?

9. Because Q-8 uses four tracks instead of two tracks for playback, will you get less music on a Q-8 tape?

10. Will 4-channel sound be available from FM stereo broadcasts as well as records and tapes?

Know all the answers? If you don’t, send for our FREE GUIDE TO QUADPHONIC SOUND. If you do know all the answers you get an ‘A’ from AMPEX and OVATION.

FREE BOOKLET

To obtain your FREE guide to quadraphonic sound, fill in the coupon and send to Ampex. Please allow two weeks for delivery.
An infinite choice of speeds.

The variable control Lenco manual turntables offer an infinite selection of speed—a continuous sweep from 30 to 86 rpm. At the standard 16-2/3, 33-1/3, 45 or 78.26 rpm, there are click stops that can be precisely set or adjusted at any time.

With this, you can slow down a complex rush of notes, the better to appreciate the inner voices when you listen next at normal speeds. You can tune a recorded orchestra to match the instrument you play, and join in. Your tuning is not restricted to a paltry fraction of a note, either. You can exercise your urge to conduct, choosing whatever tempo suits you. And you can use it to extend your knowledge of the dance or language, or to accompany your slide or movie shows.

And at every one of these speeds, Swiss precision takes over. For example, the Lenco L-75's sleekly polished transcription tonearm shares many design concepts (such as gravity-controlled anti-skating, hydraulic cueing, and precision, knife-edge bearings) with arms costing more alone than the entire L-75 arm and turntable unit. And the dynamically balanced 8.8 lb. turntable reduces rumble, wow and flutter to inaudibility.

The L-75 complete with handsome walnut base at $99.50 offers professional quality and versatility at far less than studio-equipment prices. The B55 (lighter platter and an arm of almost identical specification) is only $85.00 with base. Both are available now at your Benjamin/Lenco dealer. Benjamin Electronic Sound Corporation, Farmingdale, N.Y. 11735, a division of Instrument Systems Corporation.

Lenco turntables from Benjamin

CIRCLE NO. 15 ON READER SERVICE CARD

Military Music: Coda

- I was impressed with the article on the history of military music by Aram Bakshian, Jr., in the July issue. I am extremely interested in modern martial music, and am trying to build a library on this subject. I have purchased all the recordings carried by local record stores and current albums listed in the largest of catalogs, yet I have been unable to obtain many of the selections that I want. I would very much appreciate any information you can provide concerning available books and articles as well as actual recordings.

BILLY G. TOMLIN
Williamstown, Ky.

Mr. Bakshian replies: "The best current source of military records I know of is a small New York shop that specializes in military figurines, books, and records, and does an extensive mail-order business. They carry many American and European records not available elsewhere, and some now out of circulation. Write for their record catalog, which costs $5. Their address is The Soldier Shop, Inc., 1013 Madison Avenue, New York, N.Y. 10021."

- Aram Bakshian Jr. errs in describing the serpent as a "brass-reed instrument" in his article "The Rum-Tum-Tum of the Military Drum" (July). The serpent is not reed nor brass. This fascinating instrument is made of wood and covered with leather. Its cup-shaped bell is ivory or brass. No doubt the instrument Mr. Bakshian has in mind is the contrabass serpentus, which is a kind of contrabassoon made of brass, with keys and a double-reed mouthpiece. The instrument could not have been used in the days of the Napoleonic wars, since it was invented in France in 1863.

The serpent is not totally extinct. It is still used today for special occasions for the sake of authenticity. Listen to Charpentier's Messe pour plusieurs instruments au lieu des orgues in France in 1863. Wagner scored for it in Rienzi and Georg Hoffnung had great fun with it in his "Music Festival Concert" on Angel 35590. Moreover, brand-new serpents are made today and sold by a firm in Germany at a cost of approximately $250.

GUSTAVE R. PORTELANCE
Montreal, Canada

Defective Record Rectification

- I read with interest John Eargle's article on record defects (June) and I am most grateful that I can now speak with some knowledge of the technical language of record defects.

Just after I read the article I obtained a bad copy of Crosby, Still, Nash and Young's new release "Four Way Street." I immediately analyzed the cause of the noise and complained to the manufacturer who supposedly checks for such things. As if the situation with classical records weren't bad enough, the obvious disdain for the quality of pop records which Mr. Eargle documents is something I would be ashamed to admit in public if I were in charge.

I agree with John Schaffner ("Letters to the Editor," June) that the manufacturers could at least make high-quality copies available to those willing to pay. If, as Mr. Eargle claims, it is only a matter of pennies per copy, I'd pay them gladly (and even let the companies make an exorbitant profit).

DANIEL J. FRALEY
Dallas, Tex.

Hofmann's Chopin

- Concerning Martin Bookspan's "Basic Repertoire" discussion of the E Minor Concerto of Chopin (June): the wonderful Dinu Lipatti performance on Seraphim (60007) with orchestra is apparently with Witolow Rowic and the Warsaw Radio Orchestra. The Hofmann performance on Everest (The Piano Music of Chopin X 923) is, on the other hand, without any orchestra at all. It bears no relation to the International Piano Library release and is a dubiously processed piano-roll performance of the work in which Hofmann manages to orchestrate the orchestral tuttis with the keyboard part to create a rather awesome solo piano work.

BRIAN GRAINGER
Somerville, Mass.

- I read with interest Martin Bookspan's Basic Repertoire discussion of recordings of Chopin's First Piano Concerto (June). Therein he said that the Archive of Piano Music (X 923—APM is one of the Everest labels)—was a product of an off-the-air transcription dating from 1938. This is an error. This recording was made from Duo-Art piano rolls and was recorded in real stereo at U.K.A. using the same Steinway piano that Arthur Rubinstein uses when he performs there.

BERNARD SOLOMON
Eveerst Record Group
Los Angeles, Calif.

Mr. Booksan replies: "As stated in the column, I have not heard the Archive of Piano Music recording, and simply assumed it was the off-the-air performance also available on the International Piano Library disc. Sorry."

From Rock to Bach

- I can't resist penning an answer to Mr. Joel Don-Batalla's ("Letters to the Editor," June) who "can dig Beethoven too, but the question is where to start?" I would suggest for Mr. Don-Batalla and his "rock-music-listening"

(Continued on page 12)
Only RABCO

Servo Driven - Straight Line - Tangent Arms

RABCO arms play the record as it was recorded — in a straight line.
RABCO arms do not have anti-skating devices — they do not need them.
RABCO arms are not "bent" to approximate tangency — they are straight and light.
RABCO arms use few bearings — with minimum friction.
RABCO arms produce negligible warp-wow — for example, in the ST4 the horizontal axis is in the plane of the record.
RABCO arms are not a collection of compromises — they are a direct and elegant approach to record reproduction.

SL-8E Arm - $169.00
ST-4 Combination - $159.00

Makers of the only servo-driven straight line arm.

11937 TECH ROAD
SILVER SPRING, MARYLAND 20904
A CASSETTE DECK FOR PEOPLE WHO DON'T LIKE THE WAY CASSETTE DECKS SOUND.

We don't blame them. Because we haven't liked the way they sounded either. So we've brought out the Pilot PTD100. And have made sure people won't be disappointed.

First of all our stereo cassette deck has an Automatic Level Control. By pressing a latching button below the recording and playback controls, the recording level is controlled automatically. Overload distortion is virtually prevented within a wide range of signal levels.

The PTD100 has a superior magnetic playback head. The biasing frequency is 100 KHz. The frequency response is 30 Hz -15 KHz with a total distortion ratio of less than 2%. Wow flutter is shown in our specs as 0.2% but actually has been measured at less. The PTD100's S/N ratio is 45dB.

A solenoid operated mechanical shutoff system (plus a manual one) works when the tape stops, or when the power is disconnected. The PTD100 is a 4-track 2 channel system that takes any standard cassette cartridge. The erasing effectivity is more than 60dB. And the rewind time for a full 60 minute cassette is just 90 seconds.

So here it is, the first stereo cassette deck from Pilot. We put a lot of time and effort into making it. But until we were happy with it, we couldn't expect you to be.

For the address of the Pilot Dealer nearest you write: Pilot, 66 Field Point Road, Greenwich, Conn. 06830.

PILOT
A subsidiary of National Union Electric Corp. (ACP)
Pilot Model PTD100. Manufacturers suggested retail price $169.95.
ONLY $120 MORE FOR
4-DIMENSIONAL SOUND

Add the new low-cost Dynaco Speakers and Quadaptor™

Converting your present stereo system to 4-dimensional sound need not be expensive at all. The inexpensive Dynaco Quadaptor™ ($19.95 kit, $29.95 assembled) is inserted between your present receiver or amplifier and the four speakers. Your present two speakers remain in front. Add two matched, 8-ohm speakers in back. That's it. No second stereo amplifier is needed. Now you can enjoy 4-dimensional stereo from today's FM stereo broadcasts and tapes as well as discs.

The most satisfying results are derived when high quality, full-range speakers are used in back as well as front, since it is faithful reproduction of all audio frequencies that provides the greatest sense of spatiality and directionality.

The new Dynaco A-10 aperiodic speaker system has been designed to provide this desired reproduction—yet they cost only $99.95 per pair. They use the same tweeter as the highly rated A-25 and the A-10's 6½" woofer incorporates the same magnet structure as that of the 10" A-25 woofer. Their compactness (8½"x14¾"x7¾" deep) and light weight (12 lbs.) make them ideal for unobtrusive mounting on a back wall. And this mounting is simplified by the hanging brackets built into the rear surface of each A-10.

The sonic and efficiency similarities between the A-10 and other Dynaco speakers permits them to be intermixed in the same 4-dimensional system. Since they also have about the same efficiency as conventional acoustic-suspension speaker systems, they can be intermixed with them as well.

The new A-10 and Quadaptor™ permit you to realize the full potential of your present equipment and library—at minimal extra cost.

DYNACO INC.
3060 Jefferson Street, Philadelphia, Pa. 19121

Please send information on the new 4-dimensional Dynaco equipment and the names of Dynaco dealers from whom I can obtain the $2.95 Dynaco/Vanguard 4-dimensional stereo demonstration disc.

Name
Address
City State Zip

DYNACO INC. 3060 JEFFERSON ST., PHILA., PA. 19121
NEW PRODUCTS

Dynaco SCA-80Q
Four-Dimensional Stereo Amplifier

- Dynaco's Quadaptor circuitry for obtaining four-channel effects from normal stereo recordings and specially encoded material is now available built into the SCA-80Q, an integrated stereo amplifier that supersedes the Model SCA-80. The unit is available in kit form or factory-assembled; the addition of four speaker systems—two in front and two behind—and a stereo program source completes the four-dimensional system. The amplifier has the appropriate controls to balance the four output signals (a single switch puts the amplifier into the calibration mode) and to turn off the rear speakers for two-channel stereo. Also, the SCA-80Q can be used as a conventional stereo amplifier to drive main and remote pairs of speakers.

The SCA-80Q's performance specifications are the same as the SCA-80's: 40 watts continuous power per channel, both driven into 8-ohm loads, with less than 0.5 per cent harmonic and 0.1 per cent intermodulation distortion. Power bandwidth is 6 to 50,000 Hz, and signal-to-noise ratios are better than 60 dB for phono and 80 dB for high-level inputs. The frequency response is 15 to 50,000 Hz ±0.5 dB. Except for the speaker selecting switch, which incorporates the Quadaptor switching functions, the control facilities of the SCA-80Q are identical to those of its predecessor. These include volume, balance, bass, and treble, a five-position input selector, switchable loudness compensation and low- and high-cut filters, and a mono/stereo mode switch with a third BLEND position that reduces separation between channels to 6 dB for a center-channel speaker or headphone listening (a jack that will drive 8-ohm phones is provided). Prices have also remained the same: $169.95 kit and $249.95 factory-wired. In addition, Dynaco is offering a four-dimensional-stereo demonstration record with specially encoded popular and classical selections from the Vanguard library of four-channel master tapes. It is available only from Dynaco dealers at a cost of $2.95.

Circle 144 on reader service card

Bang & Olufsen Speaker Systems

- Bang & Olufsen of America will be importing four new speaker systems into the U.S. The leader of the line, the Beovox 5700, is a three-way system with a ¾-inch dome tweeter, a 2¼-inch dome mid-range, and a 10-inch woofer augmented by a passive-radiator cone of the same diameter. Frequency response is 25 to 20,000 Hz, with dispersion rated at 160 degrees. The 5700's power-handling capability is 60 watts continuous. Nominal impedance is between 4 and 8 ohms. The 5700 is approximately 26 x 14⅞ x 12 inches in size and weighs 49½ pounds. Price: $260. Three other B & O speaker models are also available—one three-way and two two-way systems—ranging in price from $80 to $160. All the B & O systems can be purchased in teak or rosewood cabinets; oak enclosures are available on special order.

Circle 145 on reader service card

Pioneer T-8800 Stereo Tape Deck

- Pioneer's top-of-the-line stereo tape deck, the T-8800, is an automatic-reversing quarter-track design with two combined erase/record heads and two playback heads grouped around a central capstan. The reversing action of the two-motor transport is triggered by sensing foil applied to the tape by the user. A front-panel selector programs the cycling. The T-8800 can be set to play or record one side of a four-track tape through in either direction and then shut off, play both sides of a tape, starting in either direction, or play one tape continuously, one side after the other. Its capstan roller retracts when the transport stops to facilitate tape loading. Readily accessible reel-height adjustments are provided.

The T-8800 is a two-speed (7½ and 3½ ips) machine that permits mixing of line and microphone inputs through its separate slider-type recording-level controls for each channel of each input. The line inputs in the rear are duplicated by phone jacks on the front panel. A mode selector controls the track assignments for recording and playback, with positions for mono left, mono right, stereo, and sound-on-sound recording from left channel to right or right channel to left. Other controls are a lockable pause lever, tape-monitor switch, a bias-selector pushbutton for standard or low-noise tapes, and the solenoid-controlling push keys for transport operation. The front-panel headphone jack will drive 8-ohm phones, and output levels are adjustable—knobs for the two channels are mounted concentrically.

Frequency-response specifications for the T-8800 are 40 to 15,000 Hz ±2 dB (7½ ips) and 30 to 15,000 Hz (3½ ips). Wow and flutter are under 0.08 per cent for 7½ ips and 0.15 per cent for 3½ ips.

(Continued on page 16)
NEW DYNACO AMPLIFIER

SCA-80Q

$169.95 kit
$249.95 assembled

BUILT-IN 4-D CIRCUIT
...AT NO EXTRA COST

The most logical choice for a compact, powerful control amplifier is the new Dynaco SCA-80Q. The SCA-80Q not only is a one-piece stereo preamplifier and power amplifier, but it includes built-in Quadaptor™ circuitry for 4-dimensional stereo. No decoder is required.

The SCA-80Q is the same price as the SCA-80 which already has established a reputation for unexcelled value. The SCA-80Q has all the features as its predecessor and exactly the same performance. And you can connect either two speakers to it for conventional stereo, or four speakers for 4-D sound now (or later).

The best results are obtained when the SCA-80Q is used with speakers that have small impedance variations. The most accurate front-to-back separation is achieved when the impedance of the back speakers remains as close as possible to 8 ohms.

All of the different Dynaco speakers have been designed for uniform impedance. They are a most sensible choice for 4-D playback with the SCA-80Q. Their similar efficiency and sonic characteristics permit them to be used together in the same 4-D system. The larger A-50 ($179.95 each) as well as the compact bookshelf types A-25 ($79.95 each) and the new A-10 ($99.95 the pair) are appropriate for the front. The compactness and light weight of the bookshelf models, particularly the A-10, render them ideal for unobtrusive mounting on a back wall.

A 4-D system including the SCA-80Q and four full-range Dynaco speakers is the most economical and compact way to realize the full potential of your existing stereo, library and FM stereo broadcasts. And as recordings made specifically in the 4-D format become more available, your enjoyment will be greatly increased.

DYNACO INC.
3060 Jefferson Street, Philadelphia, Pa. 19121

Please send information on the new 4-dimensional Dynaco equipment and the names of Dynaco dealers from whom I can obtain the $2.95 Dynaco/Vanguard 4-dimensional stereo demonstration disc.

Name: ____________________________
Address: __________________________
City: __________________ State: ______ Zip: ______

DYNACO INC. 3060 JEFFERSON ST., PHILADELPHIA, PA. 19121
NEW PRODUCTS

THE LATEST IN HIGH-FIDELITY EQUIPMENT

Noise is more than 55 dB down for both speeds. The fast-forward/rewind time for 1,200 feet of tape is 110 seconds. The cabinet supplied with the T-8800 is of oiled walnut. Overall dimensions are approximately 22 x 9 1/2 x 16 1/2 inches. Price: $549.95. A remote-control unit will be available at a later date.

Toshiba SR-50 Record-Playing System

- Toshiba’s SR-50 record-playing system is a manual-turntable/tone-arm combination that utilizes a unique photoelectric phono cartridge. A low-mass shutter attached to the stylus cantilever modulates two beams of light according to the movement of the stylus. The light beams fall on a pair of light-sensitive transistors, which put out electrical signals (proportional to the amount of illumination) for the two channels. The electrical output of the phototransistors is amplified and equalized by an FET preamplifier built into the turntable base. The preamplifier has an equalized output sufficient to drive the high-level inputs of a stereo amplifier or receiver, so that the magnetic-phono inputs are effectively bypassed.

The Toshiba photoelectric cartridge (Model C-100P) has a frequency response of 20 to 50,000 Hz ±3 dB, with stereo separation better than 28 dB from 100 to 10,000 Hz. Recommended tracking force is 1 to 2 grams. Harmonic distortion is 0.65 per cent for a 1,000-Hz signal recorded at a velocity of 5 cm/sec (centimeters per second). The cartridge has a 0.3 x 0.8-mil elliptical stylus and a moving mass of 0.3 milligram. The electric lamp that energizes the cartridge has a rated life of 100,000 hours.

Sony/Superscope TC-160 Stereo Cassette Deck

- Sony/Superscope’s TC-160 heads a new line of stereo cassette decks that will ultimately include four models. Special operating features of the TC-160 are a dual-capstan transport that engages the tape at both sides of the head assembly, and a switch that changes bias and record equalization for optimum performance with both standard and chromium-dioxide tapes. In addition, there is a switchable limiter circuit that holds recording levels to a 0-VU maximum to prevent overload distortion. Slider-type recording-level controls that operate on both microphone and line inputs are used; playback levels are fixed except at the headphone jack, where a two-position switch permits adjustment of loudness. The transport controls are of the push-key type, with latching fast forward and rewind. There is also a PAUSE button and an oversized STOP push bar. The recording-level meters are calibrated and illuminated. Performance specifications with standard tape include a frequency response of 20 to 16,000 Hz and a signal-to-noise ratio of 49 dB. Wow and flutter are 0.1 per cent. The bias frequency is 85 kHz. On its walnut base the TC-160 has a mechanical noise (rumble) is over 55 dB. The motor and the motorboard are independently suspended from the base by flexible mountings. Tone-arm tracking error is ±1.5 degrees. With its walnut base and dust cover the SR-50 system measures about 22 x 15 1/2 x 7 1/2 inches. Price: $449.50.

Circle 146 on reader service card

GC Electronics Car Stereo Catalog

- GC Electronics’ Car Stereo and Radio Accessories catalog (booklet FR-132) lists more than fifty convenience items for owners of automobile tape players. These include speakers and speaker grilles and mounting hardware, tuners that plug into the loading slots of eight-track tape players, lock mounts and burglar alarms, and a variety of speaker switches, volume controls, and battery cables with plugs for many popular players. Also featured are maintenance aids for cartridge tape equipment, power converters (117-volt a.c. to 12-volt d.c.), cigarette-lighter plugs, and noise-suppressing devices that will block interference from automobile ignition systems. The catalog is fully illustrated.

Circle 148 on reader service card

STEREO REVIEW
A Marantz speaker system breaks up that old gang of yours.

Separation of sound is a true test of a speaker system. And to put Marantz—or any speaker—to the test you should listen to something you are already familiar with so you'll be able to hear for yourself that it's the speaker and not the recording that makes the difference. Oh, what a difference Marantz makes! What you thought were two oboes are now clearly an oboe and a flute and that barbershop quartet... well, they're really a quintet.

Let's face it: most speakers look the same, most speakers have an impressive list of specifications and ALL—ALL—ALL speakers claim to be the very A-1 HOT SHOT MOSTEST BEST.

But the proof is in the listening. And that's where the Marantz Imperial 5 comes in. The Imperial 5 is engineered to handle a plethora of continuous RMS power, yet has high efficiency suitable for low-powered amplifiers, has fantastic off-axis response, and a 3-position high frequency control and costs just $89 and gives you true stereo separation anywhere in the room and is, for the money, truly the very A-1 HOT SHOT MOSTEST BEST.

But on paper so is theirs. However keep this in mind. Marantz speaker systems are built by the makers of the most expensive stereo equipment in the world. And exactly the same quality that goes into Marantz receivers and Marantz amplifiers goes into the Marantz Imperial 5 speaker system.

To find out how much better it sounds, listen. That's all we ask. Listen. Then ask about the big savings on a complete Marantz system.

We sound better.


CIRCLE NO. 43 ON READER SERVICE CARD
**HEAD STRONG**

**AUDIO QUESTIONS and ANSWERS**

By LARRY KLEIN  Technical Editor

**Speaker Theory**

Q. Before I buy my systems I want to learn all I can about loudspeaker design theory. Do you have any suggestions for sources?

A. Study speaker theory if you like, but don't be overconcerned with it as a guide to choosing a system for use in your home. There are at present on the speaker market good and bad examples of practically every design theory extant. And no one, however skilled and trained, is in a position to know how good a speaker system is solely on the basis of information provided in sales literature. A complete set of anechoic-chamber frequency-response measurements taken at a variety of angles, tone-burst tests, harmonic-distortion measurements, and so forth can, perhaps, for a knowledgeable engineer, provide enough information for him to separate the good from the mediocre. But it is, in my opinion, beyond the talents of most audio engineers to differentiate between the excellent producers and those that are merely very good on the basis of test data alone.

There are numerous books available, some on the layman's level, dealing with speaker design theory. However, the reader should be warned that the authors are frequently biased for (or against) a particular design approach, and therefore no single book should be taken as the final and authoritative word on the subject. In addition, the latest designs may not be discussed in current publications.

Readers who are interested in a list of titles can obtain a copy of it by sending a stamped self-addressed envelope to STEREO REVIEW, Dept. SB, 1 Park Ave., New York, N.Y. 10016.

**Homemade vs. Commercial Recordings**

Q. I recently had an opportunity to record our local sixty-five-member community orchestra playing the Brahms Double Concerto. My taping equipment, though not very good, is certainly not equal to studio-quality equipment. However, when I compared my tape with a commercial pressing of the Cleveland Orchestra with Oistrakh and Rostropovich, my tape sounded superior in every technical respect to the commercial disc. My point is not to assert that my equipment or recording technique is so good, but to ask why the commercial disc is so bad, given the record company's professional engineers and probably expensive recording equipment.

A. Like Mr. Gibbs, I too have been puzzled for many years by the poor quality of many commercial recordings. Several years ago, when trying to pick out twenty-five stereo demonstration discs for an article, I was appalled at how many discs previously recommended by critics and recording companies were eliminated before we could find twenty-five with really good sound.

Among the many reasons for bad-sounding commercial discs are an inappropriate choice of recording location or difficulties in setting up the equipment in a hall never meant for recording. In this area, both professional and amateur recordists face the same problems, and one would suppose, given his equipment and experience, that the professional would turn out a better master tape. However, the amateur's efforts are seldom made into discs—and it is at this juncture that most of the "infidelity" creeps in. The record company has the special problem of recording the material (or doctoring it) for optimum reproduction on disc. This sometimes demands severe compression of the recording level to obtain the necessary playing time on a side and to keep from producing a record that cheap players can't track. And then there are the various kinds of distortion that can arise through lack of care during the cutting, editing, mixing, dubbing, equalization, mastering, and pressing processes, all of which are expensive and time-consuming. At the same time, the engineer or his colleagues must be aware that the producer has paid a premium for the recording, so that it is not cost-effective to produce a record that is inferior in quality.
You can't please everybody. Some people just can't enjoy Mantovani when Dr. Welby is on (and vice versa).

But with Koss Stereophones you can live and let live. Because your wife won't hear your music. And Mantovani's strings won't interfere with her program.

Choose the Koss ESP-9 Electrostatic Stereophone and you'll hear smooth, distortion-free sound over the entire audible spectrum of ten octaves. A greater range than even the finest loudspeaker system. Breathtakingly clear from the brilliance of the highest flute to the deepest double bass.

Or try the Koss PRO-4AA Professional Dynamic Stereophone. Used and enjoyed by both the professional and amateur music enthusiast. Only the PRO-4AA provides crisp, clean response two full octaves beyond the range of ordinary dynamics. With a deep, full-timbered bass that's never boomy.

To get complete information, write for our free full-color catalog, c/o Virginia Lamm, Dept. SR-6.

Or if hearing the sound of Koss suits you better, your favorite Stereo Dealer or Department Store can demonstrate how to live and let live with Koss Stereophones . . . from $19.95 to $150. Just tell them Dr. Welby sent you.
If one cassette could do it all, we'd only make one cassette.

When we first introduced the cassette a few years ago, one type of cassette did everything. Now, however, the cassette has grown up. You've found more uses for it. Some demanding greater range and frequency. Others which are just for fun. One cassette can't do it all anymore, and that's why we're introducing an entire line of cassettes. It takes four grades of tape: speech to symphony.

**The Challenger:** For voice recording and other work that doesn't demand wide range and frequency. A quality cassette... at a surprisingly low price. P.S. The Challenger is perfect for your children in school.

**The Norelco 100:** Here is a good all-around cassette for people who enjoy recording but don't want to spend the time and money for high fidelity. It comes with a factory lifetime guarantee.

**The Norelco 200:** This is the famous Norelco cassette that is the standard of the industry. It's perfect for fine music recording. The finest quality Low Noise tape most people will ever need. Of course, it comes with a factory lifetime guarantee.

**The Norelco 300:** This is the highest quality tape cassette we've ever designed. For those who demand sound perfection. It's a High Output-Low Noise cassette with extended frequency and dynamic range. Plus a factory lifetime guarantee. If you really appreciate fine quality sound, you'll love it.

Cassettes by the people who invented them. Norelco®

which are not part of a one-step home tape recording.

Given the above, you can see how a "home-grown" master tape of a live performance might sound better than a commercial disc of similar material that has gone through extensive processing. With all the problems that can arise during the production of commercial discs, I find it a wonder that any of them provide first-class reproduction.

Incidentally, I was recently given several discs made by four different Japanese manufacturers. Although they were intended specifically as four-channel demonstration discs, I was startled by their clarity and openness when played as normal stereo material. I don't know what specific factors were responsible for their superb sound quality, but based on what I heard, Occidental record manufacturers would appear to have something to learn from our Far Eastern friends.

**Extra Preamp A.C. Outlets**

Q: Now that I have three different tape machines in my stereo system, I find that there are not enough a.c. outlets on the back of my preamplifier to accommodate all my equipment. Is there any reason why I can't plug a so-called "cube tap" into the preamp's outlets?

ROBERT CREED
New York, N.Y.

A: Instead of a cube tap, I made up a short a.c. extension cord which I plugged into one of the switched outlets on the back of the preamp. The extension cord a.c. outlet is the type that can be fixed in place. I have it screwed to the inside rear of my component cabinet, and the line cords from the components are led to it. There are several advantages to this scheme. First, the jam-up caused by six to ten a.c. line cords going to one small corner of the preamplifier is minimized, thus making for a neater and more accessible installation. In addition, the chances of hum pick-up from a mass of a.c. wiring in close proximity to an adjacent grouping of signal-carrying leads is minimized.

One precaution: avoid plugging any heavy-duty appliance into your switched accessory outlets since its current will be drawn through the preamplifier on/off switch, which may fail in the long run because of this. The only "heavy-duty" audio units that come to mind are some bulk tape erasers. Cooling fans are okay. As a final touch, I have a small 7-watt night light plugged into the extension a.c. outlet. I find it quite helpful when changing leads in the back of the preamplifier.

Because the number of questions we receive each month is greater than we can reply to individually, only those questions selected for this column can be answered. Sorry!
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They seem to do everything. And they do it right. Even when it comes to having a drink. It has to be Seagram's V.O. Very special. Very Canadian. Very right. Known by the company it keeps.

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FM/AM STEREO

KENWOOD sets the pace again with this remarkable new stereo receiver: 300 watts of pure music power to drive three sets of stereo speakers simultaneously and deliver distortion-free, high fidelity sound. New instant tuning with the front panel Automatic Tuning Bar or fingertip Remote Tuning with Volume Level Control. Check the performance specifications of this masterpiece...then visit your nearest KENWOOD Dealer and check the performance. You will be amazed!

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FM TUNER SECTION—Usable Sensitivity (IHF): 1.5 µV; Harmonic Distortion (at 400 Hz, 100% Mod): Mono, less than 0.4%/Stereo, less than 0.6%; Signal-to-Noise Ratio: better than 70 dB; Capture Ratio (IHF): 1.5 dB; Selectivity (Alt. Channel, IHF): better than 75 dB; Image Rejection: better than 100 dB; Stereo Separation: better than 35 dB at 1k Hz

AM TUNER SECTION—Usable Sensitivity (IHF): 15 µV; Signal-to-Noise Ratio: 50 dB at 1mV input; Selectivity (IHF): better than 30 dB; Image Rejection: better than 70 dB; Dimensions: 17"W, 6½"H, 15½"D; Shipping Weight: 40 lbs.; Price: $549.95; Oiled Walnut Wood Cabinet: SR-77, $24.95

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CIRCLE NO. 59 ON READER SERVICE CARD

ASSEMBLING THE MUSIC SYSTEM

This year's Audio Basics series is now ten columns old, and nine of them have dealt with speakers and power amplifiers. Tight as the space budget is, I think the emphasis on these components has been justified by their central importance in the music system (without both of them there is no system, unless you consider headphones a satisfactory alternative) and the interdependent factors that link the choice of one to the choice of the other. Now, before we get into specifics on additional components, let's take a broad look at the final system to see how it should logically go together.

First, the system needs a program source—tape, phonograph record, or radio are the options—and a means of connecting it physically and electrically to the power amplifier that energizes the speakers. For those who have never seen one, a power amplifier, when it takes the form of a separate component, is a pretty hefty package that frequently has no controls of its own. The level to which it drives the speakers is determined by the strength of the electrical signals it gets from the components preceding it. The connecting device should have, at minimum, a volume control to adjust the signal strength going to the power amplifier, and a switching complex to permit a choice between program sources. In its present-day form it usually has a good deal more, and goes by the name “preamplifier.”

In the strictest audio sense, a "preamplifier" is any amplification circuit that precedes the power amplifier and has something to do with preparing a signal for it. Thus, a tape deck contains playback preamplifiers to boost the signal from the tape to the specified strength needed to drive the power amplifier. But the bulk of the modern preamplifier as an integral audio component is a series of switches and controls that choose between the various program sources, optionally filter out some of the high or low frequencies to reduce noise in the program source, and perform tape-monitoring chores (i.e., permit immediate source-tape comparison while recording). There are also a master volume control, a stereo balance control (in stereo preamplifiers), and tone controls to boost or diminish low and high frequencies. The only amplification circuits a preamplifier really has are associated with these tone controls, and with the inputs for magnetic phono cartridges. (The record player is one of the few audio components without built-in amplification.)

The preamplifier is of sufficient interest to deserve its own column later on. Right now, however, we should take note of the physical forms in which this component is available. The preamplifier and power amplifier logically go together, and so it was inevitable that they be combined on one chassis to create the integrated amplifier, the power amplifier being located at the rear of the unit, and the preamplifier (with its control panel) up front. The later addition of a tuner to the package brought forth the first receiver. The upshot is that you can now buy these various components separately or incorporated into one unit. But keep in mind that, together or apart, they all retain their individual characteristics and specialized tasks.

STEREO REVIEW CIRCLE NO. 24 ON READER SERVICE PAGE
Every record you buy is one more reason to own a Dual.
The 1218: It will probably become the most popular turntable Dual has ever made.

There's a lot of the 1219 in the new 1218, bringing even more Dual precision to the medium-price range. Most notable of these features is the twin-ring gimbal of the tonearm suspension. The 1218's motor also combines high starting torque with synchronous-speed constancy.

Anti-skating scales are separately calibrated for conical and elliptical styli, thus assuring equal tracking force on each wall of the groove. (When Dual first introduced this feature, we said it provided "more precision than you may ever need." With four-channel records on the way, such precision is no longer a luxury.

Perfect vertical tracking in the single-play mode is provided by the Tracking Angle Selector, designed into the cartridge housing.

Other 1218 features: Vernier counterbalance with click-stops. Feathertouch cue-control with silicone damping. Single-play spindle rotates with platter to prevent center-hole enlargement. Pitch-control for all three speeds. One-piece cast platter weighs 4 lbs. Will track at as low as 0.5 gram. Chassis dimensions less than 11" x 13". $139.50.
Your records probably represent the biggest single investment you have in your entire component system. And the most vulnerable.

It's important to know that your records can remain as good as new for years, or begin to wear the very first time you play them. And since your collection may be worth hundreds or even thousands of dollars, you don't want to worry every time you play a record.

**How to protect your investment.**

The turntable is where it all happens. It's the one component that actually contacts your records and tracks their impressionable grooves with the unyielding hardness of a diamond. If the tonearm performs the way it should, your records can last a lifetime.

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

Then the stylus will be able to respond freely to all the twists and turns in the record groove, without digging in or chopping away. And your records will sound brand new every time you play them.

**How Dual does it.**

Dual turntables are designed with great ingenuity and engineered to perfection. In every aspect of performance.

For example, the tonearms of the 1218 and 1219 pivot exactly like a gyroscope: up and down within one ring, left and right within another. This system is called a gimbal, and no other automatic arms have it.

Both these models also provide perfect 15° tracking in single play and virtually perfect tracking throughout multiple play.

**The professionals' choice.**

Your favorite record reviewer probably owns a Dual. So do most other high fidelity professionals, such as audio engineers, hi-fi editors and hi-fi salesmen.

It's their business to know every type of equipment available, and they have easy access to whatever they need or want for their own system.

For many years, their personal choice in record playback equipment has been Dual. Not only for the way Duals get the most out of records (without taking anything away) but for their ruggedness and simplicity of operation.

**Which Dual for you?**

It's not an easy decision to make. There's such a wealth of precision built into every Dual that even the testing labs can measure only small differences in performance among them.

Even our lowest priced turntable, the 1215, boasts features every turntable should have, and few do. The 1218 and 1219 have even more features and refinements. All three models are described on the following pages.

If this brochure doesn't help you decide which one is best for you, perhaps a visit to your dealer will.
The 1219: For the purists who insist upon a full-size professional turntable.

Ever since its introduction, the 1219 has been widely acclaimed as the "no-compromise" turntable. Although measuring less than 15" x 12", the 1219 offers a full-size, dynamically balanced platter that weighs 7 lbs.

The gimbal-mounted tonearm is 8 3/4" long from pivot to stylus tip. This unusual length, combined with correct engineering geometry, reduces horizontal tracking error to the vanishing point while maintaining one-piece stability.

Further, the highly sophisticated Mode Selector achieves perfect 15° tracking in single play by shifting the entire tonearm base—down for single play, up for multiple play. Maximum vertical tracking error in multiple play is only 1.5°.

Other major features of the 1219 include: powerful continuous-pole/synchronous motor, cue-control damped in both directions, and pitch-control. Will track at as low as 0.25 gram $175.00.
Unique gyroscopic gimbal suspension centers and balances tonearm within two concentric rings. All four pivots have identical low-friction, hardened steel-point bearings. Vertical friction less than 0.007 gram, horizontal friction less than 0.015 gram.

The 1219's powerful continuous-pole/synchronous motor easily brings massive 7 lb. platter to full speed in less than a half turn. 1218 has similar motor for its 4 lb. platter. Both motors maintain precise speed independently of line voltage.

Anti-skating control is calibrated separately for elliptical and conical styli. (Each skates differently.)

Mode Selector of 1219 provides perfect 15° vertical tracking in single-play mode by lowering entire tonearm base to parallel tonearm to record. Base lifts to parallel tonearm at center of stack in multiple-play.

Feathertouch cue-control is silicone-damped for ultra-slow descent. In 1219, ascent is also damped to prevent bounce.

1219 tonearm is 8¾" from pivot to stylus, virtually eliminating tracking error while maintaining one-piece stability. 1218 tonearm is only ½" shorter.

Tracking Angle Selector of 1218 provides perfect vertical tracking in single play and at center of stack in multiple play. Selector knob is designed into cartridge housing.
The 1215: The choice of many professionals, even though the least expensive Dual.

At $99.50, we don’t suggest that the 1215 is a low-cost turntable. However, despite this modest price, it provides the precision engineering, reliable operation and special features that the most critical users insist upon.

The low-mass tonearm tracks flawlessly at as low as 0.75 gram, and gets the most out of high compliance cartridges. Among the 1215’s many features are: Vernier-adjust damped counterbalance, tracking force and anti-skating applied simultaneously by a single control, feather-touch cueing, hi-torque constant-speed motor, 3¾ lb. platter and interchangeable multiple-play spindle that holds up to six records.

Like all Duals, the 1215 also provides a pitch-control that lets you match the pitch of recorded music to live musical instruments or compensate for off-pitch records. $99.50.
LOUDSPEAKER EFFICIENCY: The term "efficiency," as applied to loudspeakers, is familiar to most audio enthusiasts. But, as so often happens when a complex subject is dealt with in simple terms, its meaning has become distorted in common use. To most people, an "efficient" speaker is one that requires relatively little amplifier power to make a loud sound. Although this may be true under certain conditions, it is by no means an accurate definition.

The Institute of Electrical and Electronics Engineers (IEEE) defines loudspeaker efficiency (called "rating-efficiency") as the ratio of the acoustic-power output to the electric-power input. In other words, if 8.95 volts of test signal from the output of an amplifier were applied to a speaker with a true 8-ohm impedance, the speaker would be receiving 10 watts of power (watts = volts²/resistance). If the measured total of radiated acoustic power from the speaker is 1 watt, then the speaker's efficiency is 10 per cent at the specific test frequency. Note that the calculated efficiency will be different at every frequency, unless the speaker has the ideal (and so far unattained) characteristic of a uniform frequency response and impedance over its working range. If there is a peak of 3 dB (a very minor response irregularity for a speaker) at some other frequency, the efficiency would be double at that point. A 3-dB depression in the response would correspond to a 50 per cent loss in efficiency, and so forth.

Since the output of a practical speaker always varies at least several decibels over its working frequency range, speaker efficiency can at best be specified as a rough average over a range of frequencies. The frequency-response curves in Fig. 1 (next page) illustrate how two speakers with identical efficiencies over much of their frequency range can sound as if they have very different efficiencies. Speakers A and B have similar characteristics at low and middle frequencies and at the highest frequencies. If they were rated at 400 Hz, they could be said to have equal efficiencies. But speaker A has a broad peak in its upper mid-range, just where speaker B has a depressed response. Therefore, when driven with program material of equal power, A will sound much louder than B if one switches back and forth between them during a listening test. Although the listener might assume that speaker A is more efficient than speaker B, it merely sounds louder.

And, to complicate the matter, even if two speakers have identical on-axis frequency-response curves, their efficiencies may have little relationship to their apparent sound volume. The explanation lies in the key word total in the measurement of radiated acoustic power. This includes the power radiated in all directions—to the sides, top and bottom, and to the rear—as well as directly in front of the speaker, where the pressure frequency response is most often measured.

In a "live" room, a sizeable portion of the sound a speaker radiates to the sides and rear is reflected from room surfaces. By this path it eventually reaches our ears, even though it will be considerably attenuated at the higher frequencies. In such an environment, the subjective sound level may relate well to the true speaker efficiency. On the other hand, in an anechoic chamber, out of doors, or in a well-padded room almost all the audible sound comes directly from the speaker to the listener. Little or no sound is reflected to the listener's position, simply because sound radiation at other angles is largely absorbed—or at least never reflected—by the surroundings.

To see how the room's reflective properties affect loudness, let us compare the two polar-response curves shown in Fig. 2. Speaker A is an ideal omnidirectional radiator with equal output in all directions, but speaker B is highly directional and beams strongly on its forward axis. The areas enclosed by both curves are equal, indicating that both speakers have...
the same total power output. In a nonreverberant room, or out of doors, a listener facing both speakers would hear B as being much louder than A, and would erroneously assume that B is more efficient. However, if the listener were to move toward the side of the speaker, the situation would be reversed. Speaker A would then sound louder than B and thus seem to be more efficient. In an acoustically bright, highly reflective room the two speakers might appear to deliver equal volume, though a listener in the on-axis position would still consider B to be the more efficient.

Since determination of true speaker efficiency is a rather involved process and would be of little value if presented in an abridged form, we (as well as most manufacturers of loudspeakers) settle for a very rough recommendation for the power rating of the driving amplifier. In view of the factors described here, plus such imponderables as listening-room size and personal taste, this is probably the most realistic method of handling the situation. After all, most of us care little whether the speaker's true efficiency is 1 or 10 per cent. What concerns us is whether it can deliver sufficient undistorted sound with the available amplifier power, or how powerful an amplifier will be required to get the desired sound level. And even more important than the question of "efficiency" is the sound quality the speaker delivers, which has absolutely nothing to do with its efficiency, however defined or measured.

EQUIPMENT TEST REPORTS
By Hirsch-Houck Laboratories

Bose 501 Speaker System

- The Bose 501 is a moderately priced, floor-standing speaker system that combines direct and reflected sound to produce a broad spatial effect in the listening room. Unlike the more expensive Bose 901 system, which uses nine small full-range drivers in each speaker, the 501 is a more conventional two-way design. A forward-facing 10-inch woofer operates in a fully sealed enclosure, and the two 3½-inch cone tweeters, which are aimed at about a 45-degree angle toward the rear, radiate from the sides of the enclosure. Since the crossover is very gradual, the high and low-frequency radiators are both active over most of the range between 1,000 and 4,000 Hz. At higher frequencies the contribution of the woofer is negligible, and the sound reaching the listener is almost entirely reflected from the wall behind the speaker.

The Bose 501 has been designed to produce a relatively uniform acoustic-power output over its full operating frequency range. In this respect, the 501 resembles the 901. It also shares the 901's characteristic of spreading the apparent sound source across the wall behind the speakers, allowing a good stereo effect to be heard almost everywhere in the room and not sounding excessively bright when heard close-up.

Although many of the special properties of the 901 system have been retained in the 501, there have been some compromises to reduce its cost to less than half that of the 901. The 501 has slightly less low-bass output (below 40 Hz), lower power-handling ability, and somewhat reduced clarity in complex passages. On the other hand, it does not 

(Continued on page 36)
Sousa lives in the new Altec Segovia

If you're going to listen to Sousa, it should sound like Sousa. Oom-pa, oom-pa, oom-pa-pa. It should be so real that you can reach over and nudge the tuba player when he gets out of step.

The new Altec Segovia is the first bookshelf speaker system that lets you hear every sound clearly and distinctly and naturally. Oom-pa. From bass drum to triangle. There's nothing added and there's nothing taken out. Oom-pa. All you hear is what Sousa wanted you to hear. Oom-pa-pa.

Ask your dealer to put on some Sousa when you listen to the new Altec Segovia speaker system. You've never heard him so good.

The new Altec Dynamic Force Segovia sells for $250.00. It's the culmination of years of building professional sound equipment and working with room acoustics and equalization while developing the proven Altec Acousta-Voicette Stereo Equalizer. Hear it at your local Altec dealer today. He's in the Yellow Pages under "High Fidelity & Stereo Sound Equipment" under Altec Lansing.

OCTOBER 1971
have an external active equalizer, is much more efficient than the 901, and can be driven from almost any amplifier or receiver rated at 20 watts or more. The Bose 501, a 4-ohm system, is 14⅛ inches square and stands 24 inches high. It is finished in walnut vinyl veneer, with a textured grille cloth on three sides. Price: $124.80.

**Laboratory Measurements.** Like the 901, the Bose 501 does not lend itself readily to conventional measurement methods. There is no single microphone placement that can realistically sample the total output of the speaker. Our multiple microphone technique, in a normally "live" room, is probably the most meaningful method. However, one would expect the high-frequency response of the system to be greatly dependent on speaker placement and on the reflective properties of the furnishings and walls. This proved to be the case.

The averaged frequency-response curve was smooth and uniform, within ±4 dB from 35 to 3,500 Hz, which is the useful frequency range of the forward-facing woofer. The bass output was especially strong in the 40- to 100-Hz region. Between 3,500 and 10,000 Hz, the output—under our test conditions—fell off at about 3 dB per octave. It appeared to drop much more rapidly between 10,000 and 15,000 Hz, but this was not significant since our distant microphones are not effective in that frequency range, and in most rooms little energy above 10,000 Hz reaches a listener 10 to 15 feet from the speaker.

The strong bass output of the 501 is very real, as our measured distortion curve showed. At a 1-watt drive level, which produced a healthy sound output with this fairly efficient system, the distortion remained low—under 3 per cent down to 40 Hz and increasing to 9 per cent at 30 Hz. To measure the high-frequency tone-burst response, we had to place the microphone toward the rear of the speaker, in line with the tweeter. The transient response of the Bose 501, measured in this manner, was excellent, as it was at lower frequencies on the woofer axis. In the intermediate range, where all three drivers are active, it is difficult to make tone-burst measurements because of interference effects.

- **Comment.** Simulated "live-vs.-recorded" listening tests essentially confirmed our measurements. In the test room, the Bose 501 required a moderate tone-control treble boost, after which it proved to be an extremely accurate reproducer whose output was difficult to distinguish from the original program. To check their sensitivity to room acoustics, and to compare them with the Bose 901 system, we set up a pair of 501's in a living room, close to a pair of 901's. Here the wall behind the 501's had much better reflective properties than that of our test room, and no treble boost was needed. As might be expected, there were both similarities and differences between the sound of the two speakers. The 501 had much the same freedom from critical listener placement and the broad panoramic sound spread that characterize a reflecting speaker system such as the 901. It seemed to have a smoother lower mid-range response (the 901 tends to emphasize the 100- to 200-Hz region), and subjectively the 501 actually seems to have stronger highs. Its deep bass, excellent by any standards, is nevertheless not quite a match for the extended low-frequency performance of the 901.

The Bose 501 appears to us to be an excellent compromise design, as compared with the unconventional 901. It is better adapted to installation in most rooms, being less critical as to spacing from the wall. Its sound is not as dramatic in its clarity and spread as that of the 901, but is distinctly different from most direct-radiating systems. Unlike the power-hungry 901, it is easy to drive and should be compatible with even a low-price receiver. Best of all, perhaps, is its relatively low price, which is less than half that of the 901 system.

The Bose Corporation states that the 501 was designed to outperform all speakers costing less than the 901. This is a rather ambitious goal, and we would not presume to judge its degree of attainment here (we haven't heard all the competing speakers, for one thing). Nevertheless, we feel safe in saying that the 501 is certainly the equal of any speaker at anywhere near its price, as well as many costing far more.

For more information, circle 156 on reader service card.

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**Pioneer SX-2500 AM/Stereo FM Receiver**

- **Pioneer's SX-2500 AM/stereo FM receiver offers a rare combination of performance and flexibility. It is an automatic-tuning receiver, with the motor-driven dial pointer sweeping through the FM band (or the AM band) in about nine seconds. A light touch on one of the two tuning-direction buttons will cause the receiver to move one station up or down scale. To move it to a station at the other end of the dial, the appropriate button is depressed until the desired station is approached by the pointer. When the button is released, the tuner seeks out the exact center of the upcoming station channel and locks into it. The receiver is muted while scanning and can be set to respond only to stereo broadcasts or to local signals that exceed a predetermined signal strength.**

A remote-control accessory with a twenty-two-foot cable duplicates the functions of the auto-tuning buttons and also has a volume control. The attractively styled front panel of the receiver carries an imposing array of controls. The combined power/speaker-selector switch energizes either, both, or neither of two pairs of speakers. Adjacent to it are the stereo-headphone jack and remote-control socket. The bass and treble tone controls, which operate on both channels:

(Continued on page 38, STEREO REVIEW)
The new Revox A77 Mk III.
It's still not perfect.

Nothing is.

But the new A77 Mark III is certainly the
best recorder Revox has ever made.
And that's saying something.

The Mark III is an improved version of
our critically acclaimed A77. The re-
corder that The Stereophile magazine
(1-71) described as, "Unquestionably
the best tape recorder we have ever
tested . . . ."

And that judgement is as true now as it
was then.

However, at Revox we've never been
content to rest on our laurels. We
thought we should make the best even
better.

But in bringing out a new model, we
didn't discard all of the time tested fea-
tures and superior performance that
distinguished the original A77.

Instead, we made only those changes
which would meaningfully improve per-
formance and reliability.

Not a radical transformation, but a pro-
gram of rational development.

As a result, you have to examine the
new A77 Mark III rather closely before
you see any external differences at all.

On the other hand, from the moment
you start to use the new Revox, you'll
begin to appreciate the changes we've
made inside.

For example, we've designed a new
oscillator circuit for greater efficiency
and lower distortion. Modified and
strengthened the self-adjusting braking
system. Devised a new hardening proc-
ess to reduce capstan wear. Improved
tape handling and spooling. And made
a number of other changes. A total of
eighteen . . . some major, some minor.

All in all, we haven't created a revolu-
tion.

We've just done what we set out to do
. . . that is carry the art and science of
tape recording a few steps closer to
perfection.

And, in the process, we've given you
eighteen more reasons why . . .

Revox delivers what all the rest only promise.
nells simultaneously, use eight-position switches instead of the usual continuously variable potentiometers and therefore have positive reseatability.

The mode selector permits either channel, or the combined right and left signal, to be played through both speakers, and provides normal and reversed-channel stereo operation. The volume and balance controls are concentric, with loudness compensation added by a separate pushbutton switch. Other pushbutton controls include tape-monitor switches for two separate tape recorders, high- and low-frequency filters, a switch for connecting either of two magnetic-phono inputs, and an FM multiplex noise filter. Adjacent to the auto-tune controls are the buttons for limiting its reception to stereo or local broadcasts and an interstation-noise muting threshold control. Completing the front-panel control lineup are the input selector (AM, FM MONO, FM AUTO, PHONO, AUX 1, AUX 2) and the tuning knob.

On the "blackout" tuning-dial face there are illuminated program legends (AM, FM, PHONO, AUX) and the FM STEREO indicator. Two tuning meters read zero center for FM tuning and relative signal strength for FM and AM. The plastic dial pointer glows only when a station is tuned in. The rear of the SX-2500 contains all the input and output jacks, plus separate preamplifier output and main amplifier input connectors with a slide switch to decouple them for inserting an equalizer or other accessory in the signal path. A DIN connector parallels one of the sets of tape jacks, and there is a center-channel output. Each output stage is fused as well as being protected by internal electronic circuitry, and the speaker outputs accept polarized plugs (included with the receiver) that reduce the possibility of accidental short. There are three a.c. outlets, one of them switched, and a combination a.c.-line fuse holder and voltage selector that can be set for operation at line voltages from 110 to 240 volts.

In addition to practically every operating convenience one could desire, the Pioneer SX-2500 carries impressive performance ratings. The FM tuner includes two FET tuned r.f. amplifiers and an i.f. section with two crystal filters and several IC amplifiers.

The Pioneer SX-2500 is supplied in a wooden walnut-finish cabinet, measuring 19 ¾ x 5 ¼ x 15 ½ inches. It weighs 33 pounds. The price is $549.95, including the remote-control unit.

Laboratory Measurements. The SX-2500 audio section easily surpassed its key specifications. At the clipping point it delivered 79 watts per channel into 8 ohms, 115 watts into 4 ohms, and 46 watts into 16 ohms, all with both channels driven. At 70 watts per channel, the distortion was under 0.1 per cent at 75 to 3,000 Hz, reaching 0.5 per cent at 32 and 20,000 Hz. At half power or less, the distortion was under 0.15 per cent at 20 and 20,000 Hz, and under 0.05 per cent over much of the audio range.

The harmonic distortion for a 1,000-Hz test signal was just over 0.2 per cent at 0.1 watt, decreasing to less than 0.03 per cent in the 15- to 40-watt range and reaching 0.1 per cent at the rated 72 watts output. The IM distortion followed a similar pattern, decreasing from 0.45 per cent at 0.1 watt to 0.07 per cent between 15 and 50 watts, and rising to about 0.5 per cent at rated output. The hum and noise were very low—74 dB and 78 dB below 10 watts output on the phono and high-level inputs, respectively. The phono dynamic range was better than average, with 1.3 millivolts needed for 10 watts output and overload occurring at 90 millivolts. The tone controls had ideal characteristics, very effective at the frequency extremes but with little mid-range effect except at their full settings. The filters had mild 6-dB-per-octave slopes, beginning at about 90 Hz and 3 kHz. The RIAA phono equalization was accurate within ±1 dB over its range of 30 to 15,000 Hz.

The FM tuner sensitivity was 2.1 microvolts. However, (Continued on page 40)
AKAI's exclusive glass and crystal ferrite head is the heart of superb AKAI recording equipment—the little part that makes the big difference. We call it the GX head. It is so unique and dependable that AKAI actually guarantees it for 150,000 hours of superb fidelity play. That's 80 years if you used it 5 hours a day—every day of the year!

The crystal ferrite core of this remarkable head forms a precise focused field that eliminates bias—records and reproduces high frequencies with absolute fidelity.

It's dust-free, oxide-free and wear-free. As a result, there is no degeneration of sound from tape dust or friction. And, the GX head delivers greater frequency response as a result of its precision gap width and gap depth. And, it's only available from AKAI.

The remarkable GX head is just one of the many innovations that have influenced more than 6,000,000 Americans to buy AKAI in over 100 countries abroad. Now the same matchless quality and craftsmanship are here. There are over 30 fabulous AKAI recorders and tape deck models—a sensational spectrum of advanced sound systems—and also the exciting and exclusive line of video tape recorders using AKAI's revolutionary 1/4-inch tape system. See the entire line at your AKAI dealer.

For those who demand the best, AKAI is heads above all others.
the limiting was complete at about 4 microvolts, making this in effect one of the more sensitive tuners we have used. FM distortion at full modulation was 0.8 per cent. The stereo FM frequency response was ±1 dB from 30 to 15,000 Hz, and there was hardly a trace of 19- or 38-KHz signal in the output. The channel separation was about 30 dB from 100 to 4,000 Hz, falling to 21 dB at 30 Hz and to 15 dB at 15,000 Hz.

The measured FM signal-to-noise ratio was about 71 dB, image rejection was 83.5 dB, and AM rejection was 51 dB—all figures representing good performance. We made no measurements on the AM tuner, but it sounded about as good as any we have encountered in our tests of stereo receivers.

Comment. The Pioneer SX-2500, subjectively, was as easy and pleasant to use as its impressive specifications would suggest. The FM interstation-noise muting worked perfectly (it should be noted that the muting operates during manual tuning only when the LOCAL station button has been depressed). Everything else also worked exactly as claimed, smoothly and without extraneous noises. The SX-2500 is about as sensitive and powerful as any we have seen, and little more need be said about its electrical performance.

We were intrigued by the automatic tuning. Most electronically tuned receivers use silicon voltage-variable capacitors. This has the disadvantage of giving only a crude indication of operating frequency, being subject to drift unless automatic frequency control (AFC) circuits are used. In contrast, the Pioneer SX-2500 uses a motor to tune the receiver physically. The dial pointer moves, and the full dial calibration accuracy is available. Unlike some others, it scans in either direction and is absolutely noiseless in operation. When the receiver is switched off it remains set on the previously tuned frequency, unlike some of the electronically tuned receivers that must be reset each time they are turned on. As a bonus, the Pioneer scanning mechanism works on AM as well as FM.

Remote volume control is handled nicely by a pair of cadmium-sulfide photo-resistor assemblies. They plug into a socket recessed in the right side of the receiver and effectively shunt the volume control in the receiver. In use, the remote volume control is set to maximum and the receiver is set for the highest desired playing level. The remote control can then reduce the volume as desired. Since the remote volume-control knob actually varies the d.c. voltage on a miniature lamp in the photo-resistor assembly, there is no deleterious effect on the noise level or frequency response. There is a slight time lag when the volume is changed, but one soon becomes accustomed to this.

We enjoyed using the Pioneer SX-2500. It is truly "deluxe" in an age when that adjective seems to be applied indiscriminately to many less worthy products. Although the SX-2500 is not inexpensive, we feel that the buyer gets fine value for his investment.

For more information, circle 157 on reader service card

Advent Model 201 Cassette Tape Deck

The powerful a.c. motor of the 201 transport provides the fastest wind and rewind performance we have encountered in a cassette machine. About 45 seconds is required to handle a C-60 cassette. The fast-forward and rewind control is a nonlatching lever that must be pushed in the direction of tape motion and held there during the winding operation.

The transport has a full mechanical shutoff, disengaging the pinch roller and shutting off the motor when the tape reaches its end or if the cassette jams. The three-digit, pushbutton-reset index counter is notably free of slippage and is therefore really useful for indexing. Advent supplies a chart showing the relationship of counter reading to playing time for C-60 and C-90 cassettes. (Although Advent does not proscribe the use of C-120 cassettes, it suggests, because of their thinner oxide coatings, that they be used only for limited-fidelity applications.)

Like the previous model, the Advent 201 has a single large, illuminated VU meter on the front panel. It can be switched to read the level of either channel or the higher of the two. It also reads playback levels and is used for calibration of the Dolby circuits. Recording levels are set by individual controls for each channel and a single master control. Together with the switchable meter operation, this makes level setting a relatively foolproof process. A rocker switch connects a single-channel input to both recording channels for mono.

Two lever switches provide much of the operating versatility of the Advent 201. One turns the Dolby system on or off. (As is well known by now, the Dolby can provide up to 10 dB of hiss reduction in the record-playback process.) The other switch, labeled REG and CrO₂, has a double function. The REG position is used with most iron-oxide tapes. For the new chromium-dioxide (Crolyn) tapes the switch is set to CrO₂. This increases the recording bias level for minimum distortion and also changes the playback tone. (Continued on page 42)
No matter which one you choose you can't go wrong. Every Empire long playing cartridge is fully shielded, with four poles, four coils, and three magnets (more than any other brand). Perfect magnetic balance, with a signal to noise ratio of 80 dB, they feature a moving magnetic element and stylus lever system .001 inch thick. The performance is phenomenal!

The Experts Agree — For example: Stereo Magazine who tested 13 different cartridges rated the 999VE tops in lightweight tracking ability.

Hi Fi Sound Magazine called the 999VE “a real hi-fi masterpiece...a remarkable cartridge unlikely to wear out discs any more rapidly than a feather held lightly against the spinning groove.”

High Fidelity Magazine said of the 1000ZE “The sound is superb. The performance data among the very best.”

Records and Recording Magazine stated emphatically that the 999VE stereo cartridge is “a design that encourages a hi-fi purist to clap his hands with joy.”

FM Guide wrote “...using the 1000ZE. It works beautifully...giving great results.”

Audio Magazine observing a remarkable 35 dB stereo spread between left and right channels in the 999VE said “Outstanding square waves. Tops in separation.”

Popular Science Magazine picked the 999VE hands down as the cartridge for “the stereo system I wish I owned” designed by Electronics Editor Ronald M. Benrey.
back equalization to compensate for the rising high-frequency response of CrO₂ tape. This latter function also serves to further reduce the hiss during playback.

The inputs and outputs are recessed into the left side of the base, together with a playback-level control. There is no headphone jack, though the playback outputs can drive 600-ohm phones if a suitable plug adapter is used. A push-button injects a standard-level calibrating signal for adjusting the Dolby system for a particular tape. The Advent 201 does not have built-in microphone preamplifiers. An optional external preamplifier (powered from a jack on the side of the deck) is available for those who wish to make "live" recordings. The price of the Advent 201 is $280. The external microphone preamplifier is $20.

- **Laboratory Measurements.** The Advent 201 easily met its specifications and established itself—at least for the time being—as the best cassette recorder we know of. Having used it to evaluate the forty types of cassette tape in a survey report (September 1971), we have a familiarity with, and respect for, its capabilities.

With a good non-chromium-dioxide tape (we used 3M ER/BT), the record-playback frequency response was ±1.5 dB from 31 to 13,500 Hz after the low-frequency ripples caused by head-fringing effects were averaged out. With Advocate Crolyn tape, the response variation was less than ±2 dB from 31 to 15,500 Hz, and the signal-to-noise ratio was somewhat improved. The Dolby circuits had a negligible effect on frequency response—unlike those of the "first-generation" Dolby decks, which tended to exaggerate the highs slightly. With TDK SD and other "extended-range" tapes, the response above about 3,000 Hz rose smoothly to a maximum of approximately 5 dB at 15,000 Hz. This adds a little "sparkle" to recordings, which can sometimes be beneficial. The recording bias of the 201 can be adjusted to provide optimum response from any tape, but a simpler solution for TDK and other tapes with a similar high-frequency rise is to introduce a little treble rolloff with the amplifier tone controls if the brightness of the sound is annoying. The characteristics of many tone controls should be ideal for this.

The playback frequency response, using a BASF calibrated test cassette, was ±1 dB from 100 to 10,000 Hz, rising to +3.5 dB at 40 Hz. This low-frequency rise appears to be a property of the test tape. Wow and flutter were 0.17 percent, unweighted. An input of 31 millivolts was needed for a 0-VU recording level, and the corresponding playback level was 530 millivolts (0.53 volt).

With TDK SD tape, the signal-to-noise ratio was 48.5 dB referred to 0 VU (which, for this machine, is set at the standard Dolby calibration level). Switching on the Dolby improved this to 54 dB. At least part of the remaining noise was inaudible hum—which nevertheless affected our meter readings. The benefits of CrO₂ tape—and especially of the playback equalization used by Advent with this tape—is evident from the 53 dB signal-to-noise ratio achieved with Advocate Crolyn tape. The Dolby circuits improved this to 55 dB because of the residual low-frequency ripple mentioned previously. Filtering out frequencies below 200 Hz yielded an ultimate signal-to-noise ratio of 57 dB. It should be noted that the noise was totally inaudible, even at extremely high playback levels.

The distortion characteristics of the Advent 201 have been substantially improved over those of the Model 200. At 0 VU, the distortion was 1.9 percent with Crolyn tape, and even at +3 dB (full-scale meter reading) it was only 2.8 percent. Unlike last year's Dolbyized cassette decks, the Advent 201 is remarkably tolerant of high recording levels. Incidentally, if the 3 percent distortion level is taken as the reference point for signal-to-noise specification (as is the case with most open-reel machines), the Advent 201 could fairly be rated at 60 dB!

- **Comment.** It is difficult to restrain our enthusiasm for the Advent 201. The unit came supplied with a demonstration tape that had been dubbed onto Crolyn tape by that specific machine from a Dolby "A" master tape. The sound quality, especially with the finest playback amplifiers and speakers, was literally awesome, as was the total absence of audible hiss or other background noise. If anyone suspects a special gimmick approach was used to make the recording, let him make his own recordings and be convinced.

Comparing the Advent 201 with the finest home open-reel tape decks we have tested (a comparison that it obviously invites), we find that:

1. Listening quality is matched by only one other open-reel recorder operating at 3½ ips, and by very few operating at 7½ ips.

2. Its signal-to-noise ratio with the Dolby circuits switched in compares with that of the best of the open-reel decks we have tested at any speed. (Admittedly, the others did not have the benefit of the Dolby system.)

3. Its distortion is comparable to that of any good open-reel machine, and better than many.

4. Its flutter, while measurable higher than that of the good open-reel units, probably could not be heard except under the most critical conditions.

5. Its fast winding, indexing, and general accessibility to any portion of a recording is better than that of any reel machine and approaches the convenience of a disc record.

Summarizing, the Advent 201 is a tape deck of superlative quality. It is difficult to imagine how its sonic performance could be substantially improved, but without doubt a lot of Advent's competitors are concentrating on that problem and we'll soon see (and hear) the results. For the time being, this is the one that sets the standard for cassette recorders.

For more information, circle 158 on reader service card

(Continued on page 44)
Among the "stereo set" it's pretty much a toss-up.

About half the audio enthusiasts to whom we've spoken say they still prefer their components separate.

The other half feel that if you don't sacrifice quality in either the receiver or the changer, why not wrap them up in one component package?

Bogen, a leader in sound for just about 40 years, agrees. You should turn on whichever turns you on.

If you're a "separatist," we offer you the superb "best-buy" BR360 120 watt (IHF) AM/FM Stereo Receiver. Its many features include slides and push-buttons in place of conventional dials, handsome contemporary styling, and Crescendo Control... the exciting and exclusive Bogen feature that restores the dynamic range of music as it was originally performed. No other receiver has it.

For the compact lovers of togetherness, Bogen presents the BC360. Atop the exciting BR360 we've mounted a deluxe BSR 4-speed automatic turntable... with anti-skating, cueing, automatic system shut-off, Pickering mag cartridge with diamond stylus, and the many other features you look for in a precision automatic table.

Suggested list prices: only $299.95 for the receiver (walnut enclosure optional); $379.95 for the compact, finished in handsome walnut.

To round out your stereo system, Bogen offers a choice of superb "Row 10" speaker systems, cassette and 8-track tape decks, precision turntable and headphones. For details, specs, and "where-to-buy" information, write us today.

BOGEN LEAR SIEGLER, INC. BOGEN DIVISION PARAMUS, NEW JERSEY 07652
The new Tandberg 4000X tape recorder fills, in a sense, the gap between the 6000X and 3000X models. Its operating controls have been slightly modified, but it offers essentially the same high quality of performance. The unique feature of the 4000X is its built-in pair of 4 x 7-inch oval speakers and its 20-watt stereo power amplifier, both accommodated with no size increase over the 4000X's brethren in the Tandberg line.

The Tandberg 4000X transport, like that of the 3000X, uses a single two-pole induction motor with tape speeds of 1½, 3¾, and 7½ ips. It retains the familiar Tandberg "joystick" control lever, which, with the transport in vertical position, puts the tape into motion at normal speed when pushed down, and into fast forward or rewind, respectively, when pushed to right or left. In the center ("neutral") position it brakes the tape to a swift, smooth stop. Pushing the lever up lets the reels turn freely for easy loading. The tape is loaded in a simple straight-line path across the heads.

The 4000X has a separate erase head and separate recording and playback heads and amplifiers. A fourth head supplies cross-field biasing, which is responsible for much of the outstanding frequency-response—and, indirectly, low-noise—performance of these machines. Its heads appear to be identical to those used in the two other Tandberg machines. In the rear are line and phono-cartridge inputs, with a switch to select flat response for ceramic cartridges or RIAA equalization for magnetic cartridges. The line outputs are in the rear of the recorder, as are two standard phone jacks for driving external speakers (4-ohm impedance is recommended for maximum amplifier power). A switch on the back panel, accessible from the top of the deck, activates the internal speakers, external speakers, or both. A socket in the rear of the 4000X can be used with an optional foot-control accessory for remote stop/start control of the transport.

The basic operating controls are a row of pushbutton switches on the panel. There are separate record-interlock pushbuttons for the two channels, and a second pair of pushbuttons connects either the input signal or the playback-amplifier outputs to the line outputs and monitor amplifiers for off-the-tape monitoring. Pressing the button for only one channel feeds that signal to both outputs. A STOP/START switch serves as a pause control. Acting through a solenoid, it stops and starts the tape instantly, with no start-up "wow." Another button, marked NORMAL/SPECIAL, connects the playback amplifier of each channel to the recording amplifier of the opposite channel for sound-on-sound recordings and echo effects.

At the left of the panel are the two Vu meters; they light up and operate only during recording. Below them are individual channel-input selectors and recording-level controls. In the MIC/LINE position, the line inputs are active unless a microphone is plugged into one of the jacks on the panel. The microphone inputs are designed for dynamic microphones of 200- to 700-ohms impedance. In mono (but not stereo) operation, a microphone input can be mixed with another program source. Near the "joystick" control are the power switch, pushbutton-reset four-digit index counter, stereo headphone jack (for phones of 200 ohms or higher impedance), and the playback amplifier controls. These last-concentric volume controls and concentric bass and treble tone controls—affect only the speaker and headphone outputs. Both internal and external speakers are muted when the headphone jack is used. The line-output level is not adjustable.

The Tandberg 4000X, which measures about 15½ x 12½ x 6½ inches, is supplied on a walnut base. For vertical operation, a pair of feet and a cover to conceal the cables and connectors in the rear (which then becomes the top) are supplied. The price is $429. A smoked plastic dust cover is $9.60 additional.

- **Laboratory Measurements.** The performance of the Tandberg 4000X was as outstanding as that of the other recent Tandberg models we have tested. At 7½ ips (using 3M Type 203 tape), the record-playback frequency response was ±2 dB from 32 to 26,500 Hz. At 3½ ips, the response was ±3 dB from 22 to 23,000 Hz, and at 1½ ips it was ±5 dB from 40 to 12,000 Hz. The playback frequency response at 7½ ips was ±1.5 dB from 50 to 15,000 Hz (the range of the Ampex test tape for that speed), and ±1 dB from 50 to 7,500 Hz at 3½ ips. In fast-forward or rewind modes, 1,800 feet of tape was handled in 112 seconds. Wow and flutter were a low 0.015 and 0.07 per cent at 7½ ips, 0.04 and 0.1 per cent at 3½ ips, and 0.03 and 0.14 per cent at 1½ ips.

The input amplifiers were unusual in requiring only 4 millivolts at the LINE inputs for a 0-VU recording level. The magnetic-phono inputs required 1.15 millivolts, and with a ceramic cartridge 8.4 millivolts were needed for 0 VU. The inputs of the 4000X were designed to make accidental overload virtually impossible. By turning down the level controls, we could put 10 volts into any input without causing distortion. The output from a 0-VU signal was 0.8 volt at the line jacks. The harmonic distortion for a signal recorded at 0 VU was 2 per cent at 7½ ips, reaching the standard reference level of 3 per cent at slightly over +2 VU. However, at 3½ ips, a +6-VU recording level could be applied before distortion approached 3 per cent.

Referred to the 0-VU recording level, the signal-to-
If music is important in your life, sooner or later you will own...

the most highly reviewed speaker regardless of size or price.

Covered by U.S. and foreign patents, issued and pending.

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noise ratio (unweighted) was 57 dB at the two higher speeds, and 52 dB at 1⅛ ips. However, in each case, the standard distortion-level reference measurement of 3 per cent allowed somewhat more input to be applied, which effectively increased the signal-to-noise ratios to 57 dB at 7½ ips, 61 dB at 3⅜ ips, and 54 dB at 1⅛ ips. (The improved figure at 3⅜ ips was the result of the +6-VU recording level needed to reach 3 per cent distortion.) These figures easily represent state-of-the-art performance for an open-reel tape machine, and reflect Tandberg's policy of designing in 3⅜-ips performance that is at least as good as 7½ ips from every audible standpoint.

Since the monitor amplifiers and speakers are the principal features distinguishing the 4000X from the other Tandberg models, we also measured the amplifier performance. Into the recommended 4-ohm loads we measured about 12 watts per channel at the clipping point. Distortion was low at middle frequencies and at reduced power over much of the audible range. At the rated 10-watt level, the distortion was 1 per cent at 100 and 4,000 Hz, reaching a minimum of just over 0.4 per cent at 1,000 Hz. The limited low-frequency power-handling ability of the amplifier was reflected in its rather poor IM characteristic, with the distortion always 1 per cent or more at any power output. But the 1,000-Hz harmonic distortion was under 0.2 per cent at normal listening levels. The speakers sounded as good as could be expected. However, we would consider it a waste of a superb recorder to listen to the Tandberg 4000X only through its own amplifiers and speakers. It deserves the best possible external amplifier and speakers.

Comment. Judged as a tape deck, the Tandberg 4000X ranks with the 3000X and the 6000X—in other words, it is one of the finest units to be had at any price. In recording FM programs, absolutely no change in sound could be heard in an input-vs-output comparison at the two higher tape speeds. With most recorded music, even the 1⅛-ips speed did not alter the frequency response, noise, or distortion in any discernible way, and the super-critical test of switching from input to output while recording FM interstation hiss did not faze the 4000X. At the two higher speeds there was no audible change in noise character (though at the slowest speed the loss of highs in the noise signal could be clearly heard). All in all, one could hardly ask for more from a tape recorder, given the present state of the art.

It is interesting to compare the features of the 4000X with those of the other Tandberg models that bracket it in price. The 4000X has the solenoid-activated start/stop mechanism of the 6000X, but otherwise it is more akin to the 3000X. The 6000X has a very effective limiter circuit, full microphone/line mixing facilities, and a hysteresis-synchronous motor—none of which are offered on the other models. Since all three perform—and sound—pretty much alike, the appeal of the 4000X must be to those who wish to use it as the nucleus of a modest hi-fi system or who need a relatively portable machine with built-in monitor amplifiers and speakers of medium quality for on-location recording jobs.

For more information, circle 159 on reader service card.

It's anything but standard.

Look at its features. Listen to its sound. You'll know it's a top quality stereo receiver. Then check its budget price and you'll know it's a top buy, too.

Standard's SR-500U receiver has IC for all audio amplifier stages, FET'd front end, 12/12 watts RMS (8 ohms) with both channels driven, a THD of less than 0.9% at rated output, and an FM sensitivity of 2.5 uV. Plus dual speaker system selector, Hi filter, FM muting, tape monitor controls, large tuning meter, stepped bass and treble controls, and black-out dial face. All in a handsome, walnut-finished wood cabinet that is included in the remarkable budget price.

The difference between standard and Standard? Come in and hear us out.
Ask your franchised dealer* to A-B the BOSE 501 with any speaker he carries that uses woofers, tweeters and crossovers.

There is an important reason why we ask you to make this test. There are inherent limitations of performance in the use of a woofer, a tweeter and a crossover—limitations covered in detail in earlier issues. The bypassing of these limitations played a large part in the advances which have made the BOSE 901 the most highly reviewed speaker, regardless of size or price.

We set out to design a lower priced speaker which would preserve as much as possible of the performance of the 901. Most important, we were able to design into the 501 much of the 901's great advance in spatial properties. The BOSE 501 is the second DIRECT/REFLECTING® speaker system.

But it became evident that there was no way to keep the advantages of multiple small full-range drivers and equalization. The cost problem was too great. We were forced to accept the woofer-tweeter-crossover combination as the only feasible compromise and set out to achieve the fullest possible realization of this design approach.

Our engineers designed a unique woofer with an unusually long voice coil which provides tight control of bass transients. They developed a new and different approach to crossing over the outputs of the woofer and the two tweeters. In the process they became convinced that $125 is about the limiting price for improving the performance of a speaker containing woofers, tweeters and crossovers.

The design goal of the 501 was to outperform any other woofer-tweeter-crossover speaker. You be the judge. If we have succeeded, the results will be obvious to you when you make the comparison.

*Literature sent in answer to your request will include a list of franchised BOSE dealers in your area who are capable of demonstrating BOSE speakers to their full performance.

BOSE 501 DIRECT/REFLECTING® Speaker System
$124.80 ea. Patents applied for.

NATICK, MA. 01760

You can hear the difference now.
THE CHICKEN OR THE EGG?

On Thursday, June 10, at the Montreux-Palace Hotel in beautiful (but rainy) Montreux, Switzerland, CBS auditioned its new four-channel disc. Taken together with the accompanying announcement that CBS would have fifty quadrasonic discs ready for release this fall, it was by far the biggest shoe dropped thus far in the unbelievably confused four-channel floorshow.

Why all the confusion? Because there are a myriad different possible systems for four-channel reproduction, some of them compatible to a greater or lesser degree with other systems, with stereo or even monophonic systems, and some of them not compatible with anything except the egos of the companies that developed them.

In the music reproduction business, hardware (equipment) and software (discs and tapes) coexist in a sort of chicken and egg relationship. Hardware manufacturers are loath to put too much muscle (or money) into marketing playing equipment until they see the general availability of material to play on it. And software manufacturers see little point in issuing material in one or another format until they know what sort of hardware it is going to be played on.

And that is why the demonstration and announcement by CBS—in conjunction with the Sony Corporation of Japan—added up to such a deafening report. Sony will make the equipment, CBS will make the records, and one combine at least has set off full speed ahead on a predetermined course, damn all the torpedoes.

I was in Montreux to hear the demonstration and, without attempting to explain matters beyond my technical competence, I can say that it was sufficiently impressive. The qualifier is there not to express technical reservations but, perhaps, aesthetic ones (of which more later). Most of the material auditioned has been presented before at one or another four-channel tape demonstration. The difference was that this time the sound source was a disc. Perhaps that is the four-channel sound source of the future, and perhaps not.

CBS, as I said, is readying fifty discs for release. Full details are not yet available as to just what they are, but an advance list of twenty that I have seen will give the reader some idea. The list is made up entirely of previously released albums, nineteen of which are popular or jazz and one of which ("Switched-On Bach") might be called classical by some. The other titles include "Blood, Sweat & Tears II," "Bridge Over Troubled Water," "Johnny Mathis' Love Story," "Ray Conniff's Love Story," "Andy Williams' Love Story," and so on.

Of the other companies, Vanguard will have forty quadrasonic disc releases, and I think it is safe to predict that there will be classical items included. Certainly Vanguard has the material—Maurice Abravanel and the Utah Symphony recorded specifically for four-channel reproduction. All the Vanguard material has also been previously released, so there is nothing totally new there either. Vanguard's discs will be mastered in the CBS system, but the company has also made a demonstration disc for Dynaco using their system and may do others.

Quadrasonic records in the Electro-Voice system have already been released by Ovation, Project 3, and Crewe. For a report on some of these, see Paul Kresh's article on page 66 of this issue.

At RCA the situation remains as it was before the CBS announcement. RCA will continue to make quadrasonic tape cartridges (discrete) but will refrain from pressing four-channel discs until such time as they either develop themselves or are presented with a technique that matches their requirements (or, one is tempted to add, they are presented with a fait accompli in the marketplace—exactly what Columbia is trying to bring off.)

There are few rumblings of any sort from the other companies. Most of the (Continued on page 52)
Our new receiver incorporates an advanced engineering concept made famous by a leading tea bag.

Not long ago, the tea people demonstrated that it was possible to increase the performance of a tea bag simply by changing its fundamental structure.

A similar approach has given birth to a whole new line of stereo receivers, the first of which is here now: the Harman-Kardon 930.

The 930 is the first receiver ever built with twin power. Unlike every other receiver, it has two separate power supplies—two separate transformers, two separate rectifier circuits and two separate filter sections.

To really appreciate what this means, you have to hear it in action.

Let's say you're listening to an orchestra through a conventional receiver. Suddenly a stirring bass passage comes along—a protracted organ chord for example.

To reproduce all that bass, a huge amount of electrical power is required. In conventional stereo receivers, both amplifiers pull that power from a common source. The amplifiers begin struggling for whatever they can get. The result is a loss in acoustical power—and a debilitating interaction between the two amplifiers.

This can't happen with the 930. Because the amplifiers, each with its own power source, have no trouble meeting the demand for power.

The result is virtually distortionless sound—not just at 1,000 Hz, but throughout the entire frequency spectrum. Total harmonic distortion remains below 0.5% from 20 Hz to 20,000 Hz (at full rated output, 45/45 watts RMS, both channels driven simultaneously into 8 ohms). You can draw the distortion curve with a straight edge.

Because of twin power, the 930 offers remarkable square wave response: less than 5% tilt at 20 Hz; rise time is less than 2 microseconds.

But there's more to a receiver than amplifiers and power sources. The 930 also offers a tuner every bit as sophisticated as the rest of the system—and quite a few other things we'd like to tell you about.

Write us and we will: Harman-Kardon, Inc., 55 Ames Court, Plainview, New York 11803.

The Harman-Kardon 930.
The first receiver with twin power.
Some Clear Information from Advent on Cassettes

For more than two years, we at Advent have tied our company’s future to helping establish a new level of performance in cassette recording—one that would put the sound quality of cassettes on at least par with the best present stereo records. Since we have done a good deal more toward this goal, quite frankly, than any other audio manufacturer, we feel we can and should provide you, the prospective buyer, with some very clear information on the present state of cassette recording.

Here, then, are questions and answers that we believe will provide the information you need on cassettes:

How good a recording can I make on a cassette?
With the best present cassette decks, employing both the Dolby System® and chromium-dioxide (Crolyn®) tape to fullest advantage, you can now expect record-playback performance that is actually in excess of what you will need to record the best records and broadcasts. You will not hear any significant difference—in frequency range, clarity, and noise level—between the original source and the cassette copy. Only live recording with high-grade professional microphones will explore the full quality now available in the best cassette recorders.

How good are commercial cassette recordings?
The majority of cassette releases you are likely to encounter in a store right now are still not impressive. But most Dolbyized releases, provided they are made from high-quality, quiet master recordings and played back on a deck equipped with the Dolby System, are just as pleasing in overall listening quality as their disc equivalents. (A given record may win in one department of performance, the cassette in another, but things are substantially the same for the listener and his overall enjoyment.) Cassettes, we are convinced, can be even better than records. More on that in a moment.

How many Dolbyized releases can I count on in the reasonable future?
It’s hard right now to spot the few Dolbyized releases in a sea of older-style cassettes, but there will be a really good choice before very long and an interesting variety as early as this Christmas. The list of labels now Dolbyizing cassette releases includes Ampex, Columbia, London, The Musical Heritage Society, Precision Tapes, and Vox, and the releases range from Mahler’s Ninth to the latest entry from The Firesign Theater. And then there will be us.

Is Advent going into the pre-recorded tape business?
It looks that way. We plan to issue a first-class library of Dolbyized cassette releases on chromium-dioxide tape, and to do so pretty quickly. Chromium-dioxide tape is, we are sure, the final step necessary for cassette releases that in many cases should clearly exceed the quality of disc records, especially in the absence of the rumble, echo, and mold-grain noise that clouds the sound quality of many discs. Something might come up to slow us down, but right now we plan to be on the market before the end of 1971 with cassette releases of the highest quality obtainable. We think they will be ear-openers.

Does chromium-dioxide make all that much difference?
Absolutely. Other new formulations for cassette tapes are clearly very good, but Crolyn appears to be the critical difference between making cassette releases as good as records and making cassettes that are preferable to records. Its combination of great signal-handling capacity and increasing sensitivity at high frequencies is ideal for cassettes, and while its use in home recording is important enough in itself, its potential for commercial releases would be almost criminal not to use properly. As just noted, we intend to use it properly.

Does Crolyn tape require a special machine?
Yes. To take advantage of its special properties, Crolyn requires a change from the conventional recording bias for cassettes, and several recorders now provide a switch to choose between Crolyn and conventional tape formulations. It’s worth stressing, though, that the Crolyn characteristic we chose in the Advent 200 and 201 is distinctly different from that of other cassette decks. The usual characteristic simply exploits Crolyn’s ability to absorb high signal levels. Our approach provides special equalization not only for recording...
but also for playback, and it yields what we believe is an optimum combination of maximum high-frequency response with minimal noise. Other manufacturers are free to use our equalization characteristic, and we hope they will. For now, however, cassette decks made by Advent are the only ones we think yield the full benefit of chromium-dioxide tape.

What makes a really good cassette recorder?
Aside from the use of the Dolby System and Crolyn tape, the basic requirements are good low-noise electronics, proper magnetic heads (of a gap length that provides the optimum combination of high-density recording and low-noise playback) and a transport mechanism that treats cassette recording fully as seriously as open-reel recording. Before the Dolby System helped make wide-range cassette recording feasible, there wasn't much incentive for a top-quality cassette transport mechanism, and most present machines still use lightweight mechanisms that aren't very promising for continued performance over the long haul. But we and others now have rugged, really reliable mechanisms that minimize the eccentricities of cassettes themselves and should go on for years under very heavy use. We also expect outstanding performance and longevity from a new magnetic head first used in our Model 201.

Are cassettes as long-lived and damage-proof as they are supposed to be?
In essence, yes. Cassettes show every sign of outlasting records in audibly ungraded form and should be really immune to the accidental damage — from kids, dogs, and casual listeners — that plagues records. For all intents and purposes, and given reasonable care, they can last pretty near forever in excellent shape. The weakest point in cassettes remains the actual plastic cassette mechanism, which calls for manufacture of highest precision. Some brands of cassettes still jam because of inattention to their role as mini-mechanisms, but the best brands are both very good and improving very quickly. The growing number of ambitious cassette machines is certain to bring further improvements in the cassette itself.

Is cassette recording all that enjoyable?
Better than that. From our own experience, cassettes leave both records and open-reel tapes far behind in all the respects that determine whether something is fun to do. They are wonderfully easy to handle, wonderfully suited to the casual life most of us lead, and wonderfully simple in a way no other medium is. If you buy a really good cassette recorder, you will use it. And enjoy it constantly.

At the moment, we at Advent manufacture one highest-quality cassette tape deck, the Model 201, which retails for $280 and is well worth it. We also market DuPont's Crolyn tape under our own Advocate label in blank cassettes, and plan to have pre-recorded releases on Crolyn available very soon. Finally, we manufacture two Noise Reduction Units that can add the Dolby System to existing cassette machines. Any of these products will indicate, we think, the seriousness with which we take cassette recording and our ability to make the right choices in design for use by real people in real situations. We hope you will listen at your nearest Advent Dealer to what we have now, and that you will keep your eyes and ears out for our line of pre-recorded cassettes.

Thank you.

Advent Corporation, 195 Albany Street, Cambridge, Massachusetts 02139

Gentlemen:
Please send me information on your cassette equipment, along with a list of your dealers, and put me on your mailing list to receive a copy of your pre-recorded tape catalogue when it becomes available.

Name
Address
City
State Zip

Advent Corporation, 195 Albany St., Cambridge, Mass. 02139

Gentlemen:
Please send me information on your cassette equipment, along with a list of your dealers, and put me on your mailing list to receive a copy of your pre-recorded tape catalogue when it becomes available.

Name
Address
City
State Zip

Advent Corporation, 195 Albany Street, Cambridge, Massachusetts 02139
We asked 30 F.M. station engineers* what they thought of the Bang & Olufsen SP-12 cartridge

Here's what they said:

WVCG/WYOR Coral Gables, Fla. . . . this excellent cartridge is ideally suited for professional applications. SP-12 would be a good choice for the new 4-channel-stereo discs.

K-BUC San Antonio, Texas The cartridge is without a doubt the "Rolls Royce" of the broadcasting industry!

KRBE Houston, Texas Low's and Hi's came through very impressively over entire audio range. The SP-12 is an excellent cartridge surpassing both the Shure V-15 and the Stanton 681EE in all respects in my tests.

KMND Mesa, Ariz. If there could be any comment at all, it would have to be that the cartridge seemed to display a very smooth and pleasing sound. The very flat and very clean, clear and brilliant response. The separation is very good and both channels are quite consistent on response.

KBAY San Jose, Cal. Up 'til now the Shure V-15 type II has been our favorite for critical listening. After installing the B & O cartridge in the shell the Shure cartridge was in, we've left it there. It sounds great! Exceptionally clean, undistorted, pure sound. One London Phase Four recording in particular has always broken up during a highly modulated passage, we assumed the record was over-modulated, until we played it using the B & O cartridge.

WKJF-FM Pittsburgh, Pa. Tracking so far, has been excellent. SP-12 has been used "on air" 7 hours a day since received and not stuck or skipped yet.

WEMP Milwaukee, Wis. We appreciate the wide-range response without the harsh "edge" that so many cartridges add to the sound.

KBIG La Jolla, Calif. An excellent cartridge, none better on the market today.

 majors have been recording four-channel material, or material that can be remixed to provide a four-channel master, for years but have no plans to release it in that form (it has all, of course, already been released in two-channel stereo) until they know which technique will be the accepted one.

In brief, then, the short-range problem facing manufacturers of software for four-channel reproduction is not so much one of working up the technology, but of intuiting or trying to influence which way the market will go. Whether one system is inherently better than another is really a matter of guesswork—there is no reason to believe that the matrix systems, for example, have already reached their ultimate development.

The long-range problem of quadrasonic reproduction is something else again. It is neither technological nor economic, but aesthetic: How will the medium be used? A fact that is obvious to virtually anyone with any musical sensibility is that most of the four-channel recordings one can hear today, matrixed or discrete, tape or disc, are, in one way or another, unsatisfying. This has nothing to do with the electronic medium itself; it is a matter of how the medium has been used, on what aesthetic basis the music was recorded and mixed in the first place. One cannot blame the producers; these are their first experimental efforts. But they, and the industry as a whole, are going to have to face up to this whopping big problem squarely and soon.

What are the resources and conditions for quadrasonic recording? Musically speaking, we have the entire range of program material that has been available before. Perhaps we now have also some few pieces of material that were too complex acoustically for two-channel stereo. In the medium itself we have four channels, more or less distinct, through which to carry information. These channels will deliver their signals to four separate speakers placed, we can probably safely say, at the corners of a four-sided geometrical figure, be it a square, a rectangle, or a diamond.

What we have, then, is a totally arbitrary and artificial arrangement for listening to music (mono and stereo are also, of course, artificial and arbitrary, but since they subsume fewer acoustic possibilities, they are at least less arbitrary for that).

What is necessary now is not only to perfect the techniques of reproducing pre-existing acoustic environments (concert halls, churches, etc.) correctly and accurately through this medium, but, beyond that, learning to translate the music directly from the score into aural terms that make aesthetic sense in the new mode. The industry is going to need some new and good musical minds on the engineering level for this, and it could do worse than to start looking for them now.
no brushes
no commutator
no belt
no idler reduction mechanisms
no motor hum
no wow*
no flutter*
no rumble*
no tone arm
no cartridge

The Panasonic
Ultra Hi-Fidelity Turntable.

For about $335.
Yes.

*The Panasonic Ultra Hi-Fidelity Turntable, Model SP-10 with wow less than 0.33% RMS,
Flutter less than 0.02% RMS. Rumble less than -30dB. Speeds 33 1/3 and 45 rpm. Fine Speed Control ±2.0%.
Build-up Time 1/2 rotation at 33 1/3 rpm. Multi-pole DC Brushless Motor, Drive System Direct Drive.
Electronic Control Turntable 12" Aluminm Discast. Turntable about $300. Base about $335.
Panasonic, 200 Park Ave, New York 10017. To your nearest franchised Panasonic Hi-Fi dealer,

CIRCLE NO. 78 ON READER SERVICE CARD

Panasonic®
just slightly ahead of our time.
TEAC introduces something you’ve never heard on a cassette before. Silence.

Put a blank cassette on your machine and push the record button.
Now play it back.
By rights you should hear nothing. A blank tape. But not so. What you hear is hiss, crackle and other undesirables.
That’s what the new TEAC 350 cassette deck takes out. Because TEAC put the Dolby Noise Reduction System in. Similar to the Dolby System the pros use recording master tapes.
It improves signal-to-noise ratio by as much as 5dB at 1kHz, 10dB at 4kHz and above.
Eliminating coloration and audible noise inherent in the tape or induced by the recorder in the recording process.
But don’t mistake the TEAC 350 for just another improved cassette recorder. It’s a completely new deck designed especially for the new low-noise cassettes.
The heads are high density ferrite, like those on expensive open-reel recorders, for sharp, clear high frequency response.
Diamond hard and precision milled, they’re so durable TEAC guarantees them for the life of the machine.

Low-noise cassettes use a deeper bias than regular cassettes. A new multiple function tape selector switch selects the exact bias and equalization for any kind of tape — regular, high energy and chromium dioxide.
Low-noise cassettes also require a higher recording level. A problem, because VU meters have an inherent time lag. By the time you see it peaking, distortion’s already set in. So TEAC not only extended the VU meters (+6dB vs. +3dB), they also gave the 350 a peak level indicator (utilizing light emitting diodes) that warns you of overload before the meters do.
Other features setting a new standard of excellence in the range of a cassette tape deck: Auto-stop mechanism, professional studio quality microphone amplifier, light-touch fingertip pushbuttons, four exclusive linear record level/output controls, strobe tape-run indicator lamp.
TEAC 350, the cassette tape deck that breaks the sound barrier for reproduction close to open-reel.
Really.
$279.50.
Ask for a demonstration of the new 350 at your nearest authorized TEAC dealer’s.
Wow and Flutter:
0.13%
Frequency Response:
30 - 16,000 Hz (chromium dioxide tape)
Signal to Noise Ratio:
58dB (with Dolby process)

*Dolby is a trade mark of Dolby Laboratories, Inc.
The best of both whirls

For manual play, experts and hi-fi enthusiasts agree the most esteemed name in transcription turntables is Thorens. Among automatic turntables, PE offers unparalleled value. Perfection in performance. At better hi-fi dealers everywhere. Distributed exclusively by: Elpa Marketing Industries, Inc., New Hyde Park, N.Y. 11040/Scottsdale, Ariz. 85253
Mozart’s

“Eine kleine Nachtmusik”

Throughout his life Mozart was frequently called upon to compose music for the simple purpose of entertaining his listeners. In his catalog there are many serenades, divertimenti, and cassations intended primarily for outdoor performance, and written to grace wedding festivities or to provide pleasant interludes between the courses of a banquet. That Mozart, even for such slight occasions, nonetheless composed music of lasting value and beauty is one of the most extraordinary aspects of his genius.

It was Mozart himself who first referred to his Serenade in G Major for Strings (K. 525) as “Eine kleine Nachtmusik” — “A Little Night Music.” The four-movement score, really a symphony in miniature, was the product of the summer of 1787. Mozart’s autograph catalog of his music gives the serenade’s scoring as “2 Violine, Viola e Bassi.” Because of this, both the Breitkopf and Härtel edition and the Köchel catalog of Mozart’s music place “Eine kleine Nachtmusik” among the composer’s string quartets; but the fact that the word bassi is the plural form indicates that Mozart wanted at least two instruments for the bass line—cello and double bass, in all likelihood. At the very least, then, “Eine kleine Nachtmusik” was intended for string quintet—but long ago, and perhaps even while Mozart was alive, the custom of performing this delectable score with string ensembles of various sizes was established.

Of the thirty-three surviving serenades, divertimenti, and cassations by Mozart, all but “Eine kleine Nachtmusik” were composed before 1782, and principally for entertainments in his home town of Salzburg. During the last decade of his life, while Vienna was his home, Mozart’s light music seems to have consisted of minuets and German contradances. Why did “Eine kleine Nachtmusik” come into being as an isolated phenomenon during these years? Probably it was the result of some inner impulse, the same creative urge that a year later was to produce the composer’s last three symphonies, even though he had no commission for them and saw no immediate possibility of having them performed.

A dozen and a half recorded versions of the score are listed in the Schwann Record and Tape Guide, and in the size of the performing forces they run the gamut from string quintet to small string ensemble to large string body. The quintet version is played by the Budapest String Quartet, with Julius Levine on double bass (Columbia MS 6127); the music has a special charm in this intimately scaled presentation, but the collaboration is rather too careful and respectful in its approach. More winged, certainly, is the performance by the Marlboro Festival Orchestra conducted by Pablo Casals (Columbia MS 7446). Here one gets a rather large string body, but the players are inspired by the dynamism of the incomparable Casals.

Another “big-sound” version of “Eine kleine Nachtmusik” is the performance conducted by Bruno Walter (Odyssey Y 30048). His is a more Romantic approach to the music, with a languorous, caressing quality, but it is no less convincing in its own way. George Szell and the Cleveland Orchestra (Columbia MS 7273) provide a more straightforward account of the score, yet one which offers a full measure of spontaneity. The Cleveland strings are absolutely gorgeous, and they are vividly recorded.

Two of the recordings using smaller forces have slight mannerisms that may prove distracting: Karl Münchinger, in his performance with the Stuttgart Chamber Orchestra (London CS 6207), tends toward exaggerated retards at the ends of sections, and Antonio Janigro, conducting I Solisti di Zagreb (Vanguard VSD 705/6), comes dangerously close to coyness in his presentation—especially in the Minuet and Trio. The Janigro recording is a sensational bargain, however: it is part of a two-disc collection, titled “The Best of Mozart,” that also includes the “Jupiter” Symphony, the Flute and Harp Concerto, the Piano Concerto No. 9 in E-flat, and two shorter works, all for a price of $5.98.

Among the dozen other available recordings of “Eine kleine Nachtmusik,” I would also single out the hearty performance conducted by Colin Davis (Seraphim S 60057) and the cool but carefully inflected William Steinberg disc (Pickwick S 4003).

Reel-to-reel tape fanciers might choose either of two equally felicitous accounts: Herbert von Karajan’s (Angel L 39548) and István Kertész’s (London I 80146), the latter being better sonically.
MY REPORT last September on the first act of the audio industry's latest on-going extravaganza may have left readers with the impression that the four-channel scene was one of confusion bordering on chaos. That impression was correct. But now the industry has had a year to develop quadrasonic components (hardware) and the appropriate program material (software) to play on it, and as a result the confusion has, if anything, worsened. At the Chicago Consumer Electronics Show this past June, virtually every maker of sound equipment showed a four-channel something, ranging from low-fidelity cartridge players to premium-price quadrasonic receivers.

In an effort to bring, at the very least, some conceptual order to the chaos, I have found it helpful, for the purposes of this discussion, to divide four-channel hardware into three basic categories: they are discrete, matrix, and quadrasonic FM, and I will examine them in that order. (In general, I will avoid enumerating brands and model numbers, for at the rate things are now moving, such information would probably be outdated even before this report gets into print.)

The Discrete Approach

Discrete four-channel tape, with each of the channels on its own tape track, is the purest and technically the easiest quadrasonic format. But it is, for a couple of reasons, also the most expensive. A year ago, I referred to the open-reel four-channel approach as a
blind alley. Today, there are a dozen or so different open-reel quadrasonic machines available, but only Vanguard, Project 3, and a few scattered smaller companies have produced four-channel tapes to play on them. However, Q8 tape cartridges (this is the eight-track format adapted to four-channel use) are being released in large numbers, mostly by RCA.

The track format in the Q8 cartridge is a logical extension of the standard stereo eight-track cartridge approach. Whereas the normal eight-track cartridge has four pairs of stereo tracks running side by side, the Q8 has two pairs of four-channel tracks running side by side. If it appears to you that this will cut the playing time for a given length of tape in half, you are correct. The open-reel four-channel releases have the same fault, slightly aggravated by the fact that after the open-reel tape is played through in four-channel, it then has to be rewound. The Q8 cartridge, on the other hand, contains an endless loop of tape that just keeps on going, automatically switching from one set of four tracks to the other at the appropriate moments. Incidentally, dozens of prototype Q8 players were shown at the Consumer Electronic Show—mostly by the manufacturers of low-end, nonaudiophile equipment.

For what are probably very sensible marketing reasons, most manufacturers of eight-track equipment have not tried to extend the frequency response of the product much beyond 8,000 Hz or so. Most eight-track cartridges are still used in automobiles, where the higher frequencies would only be masked by road noises even if the low-grade car speakers could reproduce them. And, of course, equipment that could reproduce highs would also—unless expensive steps were taken at the software end—reproduce tape hiss loudly and clearly. In short, eight-track cartridges can provide excellent separation between channels, but don't expect noise-free high-frequency response. Supporting my view of eight-track cartridges as nonaudiophile devices is the fact that no one has yet suggested Dolbyizing them—an essential step if their fidelity potential is ever to be realized. However, Q8 cartridges in a car player should work fine, providing an impressive middle-fi quadrasonic environment on wheels.

The cassette, considering the very successful efforts put forth to upgrade its sonic quality, would seem like a natural for four-channel use. But the cassette quadrasonic advocates are split between two rival approaches. One system has the same track arrangement as conventional bidirectional stereo cassette, but uses for its rear channels the two "bottom" tracks that normally contain the second, reverse-direction stereo program. This format—and the quadrasonic open-reel and Q8 formats as well—insures that the rear-channel information will be lost if the tape is played on a standard stereo machine, and the available playing time per cassette will be cut in half (as it is on reel and cartridge).

Philips (the originator and licensor of the cassette format) prefers to keep the cassette bidirectional and to cut the track widths in half. The cassette would then carry the full, normal playing time for a given length of tape and be fully compatible with existing stereo and mono players. Play such a cassette on a normal stereo machine and you'll hear both right-front and right-rear signals from the right speakers, left-front and left-rear from the left speaker; flip it over, and you'll hear the second taped program the same way. However, hiss and dropout problems become intensified when the cassette track width—already very narrow—is halved. New tape formulations and Dolby can help, but the problems of high-speed mass duplication of the four-channel bidirectional cassette may still be severe.

And even more of a headache from the cost/feasibility viewpoint is the four-channel cassette head. A bidirectional quadrasonic record/play cassette head has to have within it four ultra-short, ultra-narrow gaps (plus the associated coils) that are precisely aligned and dimensioned in a space that is half that occupied by the head in the four-channel eight-track player. Sure, it can be done—as Norelco showed over a year ago and Panasonic demonstrated recently. But it's going to take quite a breakthrough in manufacturing technology before we will see bidirectional quadrasonic heads in anything other than hand-made prototype products.

Another discrete system has been proposed and is being pushed (although there seems to be little or no hardware or software available for it in the U.S.) by the Japan Victor Corporation (JVC). It is a disc system that theoretically could be adapted to tape, but because of its frequency-response requirements probably won't be. Each groove wall of the JVC disc, as with a normal stereo disc, carries a channel (right or left). However, in the JVC disc, each of these channels contains mixed front-plus-rear information (i.e., left front plus left rear on one groove wall, right front plus right rear on the other). In addition, each groove wall carries a 30,000-Hz subcarrier that is frequency-modulated by the left or right front-minus-back difference signal. A special decoder, similar in principle to the stereo decoder in your FM receiver, converts this into four individual signals, with about the same degree of separation between all four channels as already exists between the two channels of stereo discs.

Theoretically, the system is fine. However, when
At the moment, there are few serious programs available on encoded records (and very few FM stations broadcasting them), yet matrix decoders are selling in large quantities. This apparent paradox is due to the fact that all the decoders can also create multi-channel effects from ordinary stereo recordings. In other words, add a decoder, two extra speakers, and (usually) an additional stereo amplifier, and you'll obtain a quasi-quadrasonic sound from the material in your current tape and disc library and from stereo FM broadcasts. This occurs because all the matrix systems use the difference signal (see explanatory box) to encode the rear channels. The difference signal in normal stereo recordings frequently embodies hall reverberation as well as other acoustical information. The effect varies from selection to selection, but it's usually present and very much worth reproducing. (See Ralph Hodges' article in the April 1971 issue for more on this.)

As I've indicated, the matrix systems differ in the way they encode the four original channels. As long as these matrices are used only for enhancement of normal stereo materials, this poses no problem. But when a record encoded with one matrix system is decoded through another, the results are problematic. The various channels may be blended, diffused, improperly located, or altered in level. There are probably at least a half dozen different matrix designs now in use here and in Japan. Needless to say, without a statement from the manufacturers, there's no way of knowing in advance what anyone's hardware will do to someone else's software with respect to channel location and separation. (See Julian Hirsch's article in this issue analyzing three popular matrix decoders.)

Aside from what's happening in Japan (I have a number of matrixed discs manufactured by Sansui, Trio [Kenwood], Pioneer, and Denon), the major contenders here in the United States are Electro-Voice, Dynaco, Sansui, and, lately, CBS/Sony. As of this writing, there are available to the public perhaps two dozen disc titles produced by Ovation, Project 3, Audio Spectrum, and Crewe using the Electro-Voice matrix system, a Dynaco-encoded demo disc from Vanguard, and Sansui-encoded discs from both Command and ABC-Dunhill. Several FM stations are broadcasting four-channel material that has been encoded into two channels by an E-V encoder. Other stations have also, on an experimental basis, broadcast Dynaco and Sansui encoded material. I suspect that all the matrix systems broadcast equally well—in the sense that there are no special losses incurred.
Photomicrograph shows the CBS SQ groove with signals in (A) left front only, (B) right front only, (C) left rear only, and (D) right rear only. (Note that the groove is made visible by light reflected from its walls; black areas are the "land" between the grooves.) Grooves embodying the front channels show modulation only on the appropriate groove wall; each rear channel, however, employs both groove walls, one wall or the other "leading" depending on whether right or left rear is recorded.

Through the broadcast process. (See the section on quadrasonic FM.)

At this moment it appears that the real battle for the four-channel disc market is shaping up between E-V and CBS. At their recent press conference, CBS stated that they would have fifty of their most popular titles available in matrixed disc form by the year's end. The first of these (and Sony's matching decoders) should be available shortly.

The CBS SQ (Stereo/Quadraphonic) matrix, developed by a team of designers headed by Benjamin Bauer at CBS Laboratories, appears to have some distinct technical advantages over the other matrix systems. As I mentioned earlier, all the matrix systems use the difference signal to embody the rear channels—which is why all the decoders will provide a rear-channel effect from normal stereo material. However, the decoders have only a single difference signal to work with. Faced with the problem of converting this single rear signal into a right rear and a left rear, the manufacturers go in different directions (no pun intended). One technique is to feed some of the right-front channel signal into the right-rear speaker, and some of the left-front channel into the left-rear speaker, along with the difference signal. This develops a difference between the two rear channels—but at the expense of front-to-back separation. Some quadrasonic matrix circuits add reverberation to the rear, set up random phase relationships between the rear speakers, or equalize the two rear channels differently, using special frequency-filtering techniques.

The CBS SQ technique applies what is literally a new "twist" to the inherent matrix problem of loss of separation. The original left-rear and right-rear channels are added together 90 degrees apart in phase. To encode the left-rear channel, the left and right rear are combined, but with the left rear signal 90 degrees in phase ahead of the right-rear signal. The reverse situation is used to encode the right-rear channel. The signals are then combined with their respective front channels before disc cutting, with the result that each of the encoded two channels that go on the disc contains left-front or right-front information at full strength and an attenuated mixture of left-rear and right-rear information with specific phase relationships. If we were to view the rear-channel information in the absence of front-channel modulation, it would appear as a helix (see photo). This occurs because rear-channel modulation causes the cutting stylus to move in a circular manner. This, combined with the lateral movement of the groove, results in a helix. Depending upon whether the modulation is left-rear or right-rear, the helix may spiral clockwise or counterclockwise, as in the photo. In an actual musical recording the groove modulation is a complex composite of the normal stereo modulation plus the double helix. The stylus movement at any one moment is the vector sum of the composite modulation. Everything clear?

During playback, the SQ decoder splits each channel into two separate paths. One of the paths from each channel goes directly to the front-channel playback amplifiers to drive the front speakers. The other two paths undergo further phase shifting, mixing, and level adjustment until they emerge as full-strength left-rear information plus the attenuated (-3 dB) left-front and right-front signals. The right rear appears with the same admixture of front-channel information. The unwanted front-channel signals appearing in the back have specific phase angles which, as it turns out, are convenient for "logic" circuits. If you ignore any references to stylus motion and think only in terms of phase, polarity, and signal strength, this explanation will serve for matrix taping also.

When the SQ system has done its work, the separation loss that is inevitable with any four-channel matrix system occurs only between the front and back pairs of speakers, where separation, as we saw above, drops to 3 dB. On the other hand, full left-to-right separation is maintained in both the front and the rear speaker pairs. (These figures should be compared with those measured by Julian Hirsch in his tests of other matrix adapters elsewhere in this issue.) In its thirty-three-page description of the SQ matrix, CBS Laboratories cites psychoacoustical studies it has made that suggest the SQ's modest front-to-back separation is not a severe detriment (they also
make a strong case for the SQ's full two-channel compatibility). A more elaborate decoder has been designed by CBS that provides audibly excellent separation between all four channels. The basis of its operation is built-in "logic" circuitry, which is able to identify—by its strength and phase-angle relationships—the signal information that turns up in the incorrect channels and drastically reduce it in level.

Aside from its possible theoretical advantages, how well does the CBS system work in comparison with the others? As I wrote last year, the only real test is to start with a good discrete four-channel tape, encode it, decode it, and then compare the results against the original tape. At the press conference CBS had a switch box set up to do just that. The audience was invited to push the buttons as they wished on a variety of program material. When the prototype of the less expensive ($55) Sony/CBS decoder was switched in, there was, as expected, good separation between left and right signals at both front and back, but because of the limited front-to-back separation, there was a sort of smearing of signals along the side walls. When the more expensive ($150) "logic-enhanced" decoder was switched in, the encoded/decoded signal was essentially indistinguishable from the original discrete master-tape signal. None of the other matrix systems are capable of this level of performance without the help of logic circuits—which at the moment none of them have. But could they, with logic assistance, do as well as CBS? I'm not sure, but I suspect not.

So where does that leave us? The cheaper CBS/Sony decoder may or may not do a better job on CBS encoded discs than the E-V decoder would do on E-V discs, the Dynaco on the just emerging Dynaco discs, and the Sansui on the Sansui discs about to appear in the U.S. We have no way of knowing without a full comparison test. I do know that the "logic" version of the decoder does do a better job of providing four apparently discrete channels from a matrix than anything else I've heard to date.

Peter Scheiber, who originally developed the logic approach to matrixing, is working with Electro-Voice, which has expressed an intention to produce a more expensive "logic" version of the E-V unit. CBS may still have a lead on the others, however, because the SQ matrix configuration appears to be inherently more accessible to logic manipulation. Incidentally, the same matrix factors that provide the rear left-to-right separation apparently render the SQ system noncompatible with the other matrix systems. Although, in general, any of the available matrixed discs can be played through any decoder with acceptable results, the CBS discs and decoders, when used with other matrix equipment, cause too much directional confusion to be satisfactory. However, the SQ decoder does provide the same enhancement of normal stereo material as the other matrix adapters.

**Quadrasonic FM**

It should come as no surprise that the FM situation is as confused as the rest of the four-channel scene. There are at least two or three FM-only discrete four-channel systems waiting in the wings. Although they differ in detail, it could be said that each uses a logical extension of the techniques currently employed to broadcast a two-channel FM signal. The task is to encode the two extra channels into the stereo-FM broadcast with full compatibility (i.e., without loss of any of the program when it is received in mono or stereo) and without unacceptably weakening the signal. (Two-channel stereo broadcasts apparently impaired FM signal strength and signal-to-noise ratio more than most engineers predicted). The only FM system I've heard was demonstrated to me at the Chicago show by Lou Dorren, its inventor, and it had no apparent technical flaws. Dorren showed me an inch-thick document, about to be submitted to the FCC, detailing the results of his extensive and technically successful field tests.

In my view, however, there is a major conceptual flaw in any FM-only system. A separate decoder will still be required for discs, and it would not be possible to tape quadrasonic broadcasts off the air unless one owned a four-channel tape recorder. In contrast, matrixed quadrasonic broadcasts could be taped by a two-channel tape recorder (before decoding) while being played in four channels. And a single decoder, connected after the preamplifier, would serve for matrixed FM, tape, and disc.

Another factor differentiates discrete quadrasonic FM from matrixed broadcasts. FCC approval would be required to broadcast the extra subcarriers or...
Whatever the discrete FM-only systems might use. And while it’s not too difficult to get the FCC’s okay for experimental transmissions, the U.S.—and probably the rest of the world—is certainly not going to be committed to any four-channel FM system involving new broadcast equipment and techniques without lengthy investigation. Discrete quadrasonic FM appears to be so far over the horizon it may never arrive. In contrast, FCC approval is not needed to broadcast matrixed four-channel material since absolutely no modification of the station’s equipment is required. And the matrix broadcast is fully compatible with two-channel receiving equipment.

**What to Buy Now**

If you are really aching to take the four-channel plunge, I suggest that you carefully reread all the preceding material before you make a move. As I write, the only four-channel program material available in any profusion is on eight-track cartridges. The Q8 players that accept them range in price from about $129.95 for a deck (Panasonic), to $299.95 for a player that includes a stereo amplifier (Fisher) meant to supplement the two channels in your main system. In addition, there is a large number of all-in-one units with low-power low-quality amplifiers with and without matching speakers. With any of the eight-track units, it’s a good idea to audition them first using a standard (not demo) Q8 cartridge before you buy.

How about the relative virtues of the Dynaco, E-V, and Sansui adaptors? The Dyna is obviously the easiest way to go. It doesn’t require another amplifier and does as good a job as any of deriving multi-channel effects from normal stereo material, but at the time of this writing there is very little software recorded especially for it. It will, however, play E-V encoded discs, although perhaps not in quite the way the recording engineer intended. At about double Dyna’s price (plus another amplifier), the E-V decoder has a steadily growing amount of software available. In addition, there is greater flexibility in using unmatched and inexpensive speakers. The Sansui unit, which will also play the E-V discs, is a highly flexible, impressive-looking piece of equipment. Judging from the technical literature I’ve seen and my conversations with its designer, it represents a substantial engineering effort to take into account the acoustics and psychoacoustics of listening to recorded music in the home.

All things considered, the best advice I can give at this juncture is to play it cool—and avoid any really massive expenditures until things settle down somewhat. If you are about to buy a new amplifier anyway, a four-channel job that can accept an external matrix (or has one built in) would certainly not be an unwise investment. You can always add a separate matrix decoder of your choice later if the built-in one doesn’t do the job. It’s difficult to provide more precise recommendations at this moment because of the profusion of equipment and the rapid shifts taking place in the market.

**Observations**

Julian Hirsch and I have both found that the audible effects of the various matrices do not correspond very well with what we were led to expect from their laboratory measurements. Obviously the numbers obtained in the tests reflected the electrical performance of the decoders, but not the psychoacoustics—and perhaps just plain acoustics—of our specific listening conditions. On the same subject, I am still bothered by the X-marks-the-correct-listening-spot phenomenon that is characteristic of four-channel reproduction—but not, of course, of live performances. In a “live” listening situation, with four soloists playing at the four corners of your room, you would not lose much of the sound of the other three if you moved closer to any single one. Why, when listening to four-channel reproduction, is listener position so critical that (as has occurred at all demonstrations I’ve attended) people sitting at my immediate right, left, front, and back heard a significantly different sonic balance than I did? There is obviously some psychoacoustic phenomenon at work that is not being compensated for by present-day recording techniques. I would be vastly more optimistic about the future of quadrasonics as an aesthetically viable medium if I knew that Ben Bauer, a renowned psychoacoustician—and head of the team that designed the CBS SQ system—were looking into this aspect of the problem. Are you listening, Ben?
Julian Hirsch comments on his experiences with some typical QUADRASONIC HARDWARE

THOUGH new four-channel matrix systems are popping up almost every day, there are three that dominate the U.S. market at present: Dynaco, Electro-Voice, and Sansui. The first two are complete systems with recordings available (or about to be available) that have been specially encoded for them. At this time, the Sansui system is being offered in the United States only as a four-channel "synthesizer" and enhancer of conventional two-channel recordings. However, recordings specially encoded for the Sansui system are scheduled to be released in this country by the time this appears in print.

All three systems have a certain degree of mutual compatibility, and each of them can operate effectively to enhance many ordinary two-channel stereo programs, as well as to process for playback recordings that have been matrix-encoded with four channels. I have used, measured, and compared the performance of the Dynaco Quadaptor (as well as the schematically identical Lafayette Dynaquad), the Electro-Voice EVX-4 decoder, and the Sansui QS-1 Quadphonic Synthesizer. (Hardware for the new Sony/CBS system was not available at the time of our tests.) In their decoding function these devices take the two stereo channels and, by combining them in several different ways after they have been placed in both in-phase and out-of-phase conditions, extract four separate signals that constitute the four channels. (Four-channel recordings are encoded into two channels by something like the inverse of this process.) An in-phase (L + R) sum signal appears acoustically midway between the two front speakers. An out-of-phase (L - R) difference signal would appear between the rear speakers. By working with variations in the phase and amplitude relationships between the encoded two channels, a four-channel decoder can theoretically locate a sound source anywhere between the front and rear speakers.

A major benefit of the matrix techniques is that they can enhance much conventional two-channel program material by providing a sense of ambiance or "hall sound." This is because phase/amplitude relationships in two-channel stereo recordings often vary in the appropriate way, although they do so by accident. Specially encoded four-channel records yield a more distinct four-channel distribution, although it is seldom comparable at this juncture to that obtainable with a discrete four-channel system.

As noted above, the three matrix systems are compatible to some degree. A record encoded for the E-V system produces a very similar effect when played back with the Sansui system, and vice versa. The Dynaco system produces a different (but still pleasing) effect with these records. With normal two-channel stereo material, the three systems all enhance ambience to about the same extent, although again there are differences among them.

Measuring the outputs of each adapter with input test signals revealed their technical similarities and differences. Only the Dynaco Quadaptor maintained the full left-to-right separation in front. With the EVX-4, front separation was limited to 14.3 dB, and with the QS-1 to 6.4 dB. The front-to-rear separations of the E-V and Dyna units are about the same—2.9 dB and 3.7 dB, respectively. With the Sansui QS-1, the rear signal is actually 3.2 dB stronger than the front signal on the same side when the balance controls are centered. These are maximum output figures. Both the Dynaco and Sansui units have controls for reducing the level of the rear signal. The E-V unit has a master volume control that affects all four channels. Diagonally across the room (from right-front to left-back and vice versa) the separation was 4.9 dB (with a phase reversal between the speaker pairs) with the EVX-4, and 8.7 dB with the Dynaco unit. The QS-1 had less than 1 dB separation along the diagonal, although its special phase-shifting techniques somewhat made up for this deficiency and contributed to its subjective effect on the listener. A mono (L + R) signal was reduced by 18 dB in the rear speakers with the E-V system, by 11 dB with the Dynaco system, and by 10.5 dB with the Sansui QS-1. An out-of-phase (L - R) signal appeared at full level in the rear speakers of a Dynaco set-up and was enhanced by several decibels with the E-V and Sansui units. Finally, the separation between the two rear speakers was slight with any of the systems: 2 dB with the E-V, 4 dB with the Sansui, and 5 dB with the Dyna.

Although the numbers differ somewhat, it is apparent that all the matrix systems do about the same thing. However, there are great differences between them in cost and flexibility. The Dyna Quadaptor (and the similar Lafayette Dynaquad) requires only a second pair of speakers for the rear channels, using the regular two-channel amplifier to drive all four
speakers. The rear speakers should be 8-ohm units, with relatively constant impedance across the frequency range. All other systems call for a second stereo amplifier, and the rear-speaker requirements are less stringent (though the speakers should be similar types). Since the E-V and Sansui units have volume controls, the second amplifier can be a basic stereo power amplifier, but the added tone-control flexibility (and sometimes the additional gain) of an integrated amplifier can be useful. (An E-V-type decoder is also available wired or in kit form from Metrotec Industries, 33 Caine Drive, Plainview, N.Y. 11803. The Metrotec version has controls to adjust front-to-back balance, and switches that permit decoding the front and rear channels separately.)

As its price implies, the Sansui QS-1 is a far more complex and sophisticated instrument than the others. It has a master gain control, separate left-to-right balance controls for both the front and the rear speakers, a front-to-rear balance control, and a number of switch-selected operating modes. In addition to normal two-channel stereo, four-channel matrix decoding is available with a choice of six frequency-response characteristics for the rear channels: (1) flat response, (2) reduced highs, (3) boosted lows, and (4) oppositely sloped response curves for the two rear outputs. (The front-channel response is always flat.) The QS-1 can also switch the front program to the side speakers and the rear information to the opposite side, or interchange the front and rear speakers. Whereas the other systems use phase angles of only 0 (in-phase) and 180 (out-of-phase) degrees, the QS-1 produces in its rear channels widely different phase relationships that vary as a function of signal frequency. Furthermore, all the phase shifts are swept at a subsonic rate over a considerable range. The effect, according to the designer, is a simulation of the acoustic situation encountered in the concert hall.

Any of these devices, I believe, would make a worthwhile addition to a stereo system. The great control flexibility of the Sansui QS-1 makes it especially intriguing to experiment with. If you have some of the records encoded for four-channel playback, both the E-V and Sansui units will do a creditable job of quadrasonic reproduction. (For reasons not clear to me, the Dynaco Quadaptor lacked rear directionality with any of the encoded records played through it). With normal stereo material, all three produce a definite multi-channel effect. They sound slightly different from each other, and with a given piece of material one or the other unit may sound superior. But, in general, I would be hard pressed to choose between them on the basis of sound when they are "enhancing" normal stereo material.

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**THREE FOUR-CHANNEL ADAPTERS**

The figures outside parentheses in the speaker-layout diagrams below are in decibels referred to an output that is at 0 dB in the left-front channel. The figures within parentheses indicate signal phase-shift in degrees, again referred to the left-front channel at 0 degrees. Only the left-channel input of each unit was driven to derive the figures shown.

**Dynaco Quadaptor ($19.95 kit, $29.95 assembled)**

When left and right inputs of the decoder are driven by equal-strength, in-phase (mono) signals, the outputs of the rear speakers are down 11 dB relative to the front. The output level with equal but opposite-phase driving signals is the same for all four speakers.

**Electro-Voice EVX-4 Decoder ($59.95)**

When left and right decoder inputs are driven by equal in-phase signals, the output to the rear channels is down 18 dB relative to the front. Rear-channel outputs are boosted 4 dB for equal but opposite-phase driving signals.

**Sansui QS-1 Quadphonic Synthesizer ($199.95)**

For equal in-phase driving signals, the output of the rear channels is down 10.5 dB relative to the front signals, and with a 32-degree phase shift. Rear-channel output is boosted when there are equal but opposite-phase driving signals in the two inputs. The phase of the rear-channel outputs varies with frequency. Diagram shows phase for 1.000-Hz test signal.

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OCTOBER 1971
Paul Kresh describes his reactions to several different examples of QUADRASONIC SOFTWARE

The house is full of loudspeakers, amplifiers, turntables, tape-decks, and decoders. The living room looks like the cabin of a spaceship, with dials gleaming, knobs lined up in serried rows, pilot lights ready to glow. Walnut enclosures lurk in every available corner. A complicated network of plugs, jacks, and cables at last are all interconnected, concealed under carpets, test-run, and pronounced by the experts as ready at the flick of a switch—a couple of switches, anyhow—to reproduce quadrasonic sound. The only question is, with all this equipment hooked up now and in working order, what do you play on it?

The question has been anticipated by a number of companies, including several I had never heard of before, which have been busy preparing the "software" to pipe through your new four-channel "hardware." Records and tapes do not exactly abound as yet, though announcements of imminent arrivals certainly do. Those considered here are RCA's Q8 four-channel tapes with the channels recorded discretely on separate tracks, and discs that have had four channels "matrixed" into two for subsequent recovery during playback via a special "decoder." I used an Electro-Voice EVX-4 decoder to play the discs because most of them were recorded using the Electro-Voice matrixing process.

All the program material in both tape and disc formats was recorded for an "all-around-sound" effect, so that instruments and voices—when they can be distinctly localized at all—are likely to come at you from any point of the compass. A lot of this bears little, if any, resemblance to the kind of listening experience we usually encounter, but even this skeptical listener, once exposed to quadrasonic sound, was amazed at how thin and flat the best stereo record sounded when the two rear speakers were switched off.

My initial exposure to four-channel sound on disc came by way of a sampler from a company called Ovation. My baptismal immersion began with an "Electronic Whirlpool" that whooshed the gibberings of a synthesizer hither and yon and held me riveted in terror to a spot on the carpet equidistant from the quadruple sound sources. This was followed by a diesel locomotive passing through the room from right to left, a motorcycle that sped round and round the walls, a felled tree that landed with a nasty crash about two inches from my trembling toes, a series of sports cars, and two jet planes departing through the roof from somewhere behind the sofa. I had to lie down.

Dropping the sampler and moving courageously on to Ovation's recordings of musical material, I listened to a vigorous big-band jazz concert by Dick Schory ("Dick Schory—Carnegie Hall," OV 14-10-2) that claimed to "put you on the podium as the conductor"; a folk-rock concert by Hollins and Starr, who alternate their aggressive vocals with rather tranquil impressionistic instrumental interludes ("Sidewalks Talking," OV 14-07); a jazz drummer performing with a string quartet (Joe Morello, "Another Step Forward," OV 14-02); the strum of an easygoing jazz guitarist (Ron Steele, "Chicago Guitar," OV 14-08); a girl named Laura whosocks out her numbers with wild abandon ("Laura" OV 14-11); an "easy-listening pop-jazz vibe interpretation" by a group with the squirmy name "The Bobby Christian Vibe-Brations" (OV 14-06); and a "new, fresh Nashville group" (Dana Paul, "Rich Mountain Tower," OV 14-12). All of them lived up to their billing in terms of freshness and newness, and they sounded alive—indeed, larger than life—on the quadrasonic equipment, even though I am far from sure that the right place to listen to a Carnegie Hall jazz concert, or any other kind, is necessarily "on the podium as the conductor." Let's face it: the four channels do not mirror "concert hall realism," but they do provide a sensation of spaciousness and bigness all their own and deliver a terrific sonic wallop from every side.

Project 3 Records ("Total Sound—an emotional experience in musical communication") doesn't provide a sampler, but there are enough recordings by Enoch Light and the Light Brigade to start a small Enoch Light circulating library. Mr. Light's forces appear in a number of diverting disguises recreating "The Big Band Hits of the Thirties" (PR 5049 SD) in which the styles of Glenn Miller, Tommy Dorsey, Harry James, and others are uncannily—and reverently—recreated; with the accent on gleaming brass- enes in "Enoch Light and the Brass Menagerie" (PR 5036 SD), all sharp, resounding arrangements of current hits; soundtrack-happy in "Hit Movie Themes" (PR 5051 SD); and wearing a sombrero in "Spanish Strings" (PR 5000 SD). The arrangements
for these albums ingeniously exploit every possibility of quadrasonicism, and are fascinating, not to say overwhelming, in the variety of their novel effects. Spain also comes in for some fancy musical treatment in “The Soul of Spain,” issued by a company called Audio Spectrum, which features the sound of “101 Strings,” a group that seems to have added whole brass, woodwind, and percussion sections since I last heard them. I tried only Volume Three of this Spanish series (Audio Spectrum QS-1) and found that the chef had used far too much garlic in his dishes (Ritual Fire Dance, Andaluza, Fiesta Flamenca). The castanets clacked like dinner plates, the guitars throbbed with earthquake intensity, and the attempts to improve on the orchestrations of Manuel de Falla and Enrique Granados threw proportion literally to the four winds, making an evaluation of the quadrasonics pointless.

Another company, called Crewe, has released a record with the provocative title “Let Me Touch You,” which features a nude couple embracing on the cover and the sound of “The Bob Crewe Generation” (Crewe 1600). Mr. Crewe and the members of his generation do atrocious things to Stella by Starlight, Golden Earrings, To Each His Own, and other old-fashioned properties that should have been left in the hands of their elders. The sound, though, is quite sensational.

How does a four-channel matrixed disc compare with a discrete four-channel tape? I happen to be in a position to tell you—at least as far as the equipment I heard them on permits comparison. From an outfit with the forward-looking name Evolution came a sampler disc featuring some first-rate pop talent (Bobby Byrne, Gloria Loring, the Electric Hair, Today’s People, and the Lighthouse—terrific sound). And it so happened that another sampler—on eight-track tape—containing almost the same material arrived along with RCA’s Mark 8 quadrasonic tape-player set up for this correspondent to try out the new RCA “Q8” cartridge tapes. Imagine yourself in a Cadillac with front and rear speakers playing and you’ll have a notion of how music sounds on the Mark 8; sumptuous, but boxed in. An instant check of one sampler against another revealed the sonic shortcomings of this equipment. It is simple to install, easy to operate, and eliminates hiss, but it cuts off the highs in the process, leaving a tubby, surprisingly old-fashioned sort of sound. Even with the treble turned all the way up, my ears were starved for highs. This is not, by the way, necessarily typical of discrete four-channel sound.

But what programs these are! Here are Rubinstein and Ormandy delivering gorgeous performances of the Saint-Saëns Second Concerto for Piano and Orchestra, and (Spain again!) Falla’s Nights in the Gardens of Spain (RQ 8-1165); “The Best of Arthur Fiedler and the Boston Pops” (RQ 8-1047); Reiner and the Chicago Symphony in Strauss’ Also sprach Zarathustra (RQ 8-1168). For opera there are the highlights from Puccini’s Madama Butterfly (RS 8-1048) with Leontyne Price and Richard Tucker. The feeling of multi-dimensional music here was thrilling, although in this performance the singers seem to have been anchored to their respective microphones; there is no sense of stage movement, which the quadrasonic system might so convincingly reproduce. Of “live” performances taped in big halls, two were chosen: “Belafonte at Carnegie Hall” (OQ 8-5002) and “José Feliciano in Concert at the London Palladium, Alive, Alive-O!,” a two-part set (PQ 8-1537 and 1538). These are landmark recordings for both artists, crackling with the excitement that comes when singer and audience really turn each other on, and the feeling of being there was enhanced by the four-way sound.

One RCA cartridge tape is so lovely that it stands in a class by itself, even when heard over an inadequate system. This is the “Julian Bream Concert” (RQ 8-1052) which includes Rodrigo’s Concierto de Aranjuez for Guitar and Orchestra, Britten’s Courte Dances from Gloriana, and Vivaldi’s Concerto in D for Lute and Strings. Here is music so off the beaten track, so exquisite and civilized, that the music-lover forgets entirely whether he’s hearing it in mono or stereo or quadro—or straight from the vaults of heaven. That, of course, is what a recorded program should be. No amount of multiple-tracking, however thrilling to the ear in a purely sensual way, can ever replace that quality, which belongs to art, not to technology. But quadrasonic sound does bring our ears closer, if not to the “real” thing, at least to something “unreal” that’s pretty thrilling in itself.
“Now that you’re hired, what would you like to sing?”

By WILLIAM LIVINGSTONE

POPULAR WORKS on astrology dwell on the charm, physical beauty, and sex appeal of women born under the sign of Libra (September 24 to October 23). But, according to the astrological best-seller Linda Goodman’s Sun Signs, the Libra woman’s most valuable asset is that behind her utter femininity she hides a keen mind. This description may not be accurate for every woman born in Libra, but it applies very well to the young American mezzo-soprano Joanna Simon, whose birthday is October 20, and whose photograph appears on this month’s cover.

The symbol of Libra is a balanced scale, and Miss Simon’s radiant good looks are balanced by a generous endowment of intelligence. A graduate of Sarah Lawrence College, where she majored in philosophy, she is a serious, hard-working musician whose singing career takes her to opera houses, concert halls, and television and recording studios on four continents. This summer she opened the Ravinia Festival in Chicago as a soloist in Mahler’s Second Symphony, made a very successful debut at the Salzburg Festival singing Mozart concert arias with orchestra and the role of Piacere in Cavalieri’s Rappresentazione di anima e di corpo, and returned to the United States for a recital at the Lake George Festival and her first performance of the title role in Massenet’s Héroïade in New York City.

Interviewed in New York, where she was born and still lives, Miss Simon commented on her varied repertoire. “I’m not at a point where I have to specialize yet,” she said. “Because of the publicity surrounding my performances in Ginastera’s Bomarzo, some people think of me primarily as a singer of contemporary music. I’m not, and in fact I find most of it unrewarding. I do the standard song literature—oratorios, masses, and cantatas, Handel, Mozart, Mahler, Beethoven, Brahms, and Bach. I can go for only so long without singing Bach—it’s like medicine for the voice—and if I were forced to choose a single favorite work, it would be the St. Matthew Passion. I’ve done a wide variety of roles in opera, but most of my operatic work is in the French repertoire—Carmen, Delilah, and the Massenet heroines (I’m especially fond of Charlotte in Werther). I haven’t meant to slight the Italian repertoire, but it doesn’t offer a great deal for a high mezzo voice like mine.

“Since I don’t care to play second fiddle to a soprano, I will never do Suzuki, and with the exception of the Princess Eboli in Don Carlo, which is definitely on my agenda, the Verdi mezzo roles are old women who don’t interest me dramatically. The Verdi Requiem, however, lies perfectly for my voice, and I love singing it. On occasion I even sing musical comedy. I’ve been invited to provide the voice for Sophia Loren in a movie version of Man of La Mancha. I answered that I would like to be in the picture and let her supply the voice for me. If I don’t want to play second fiddle for a soprano, I certainly don’t want to be third fiddle for Sophia Loren. But I may do it. Dulcinea has some good songs, and I would enjoy six weeks in Rome.”

It was a desire to sing musical comedy that originally led Miss Simon to opera. She comes from an unusually musical family. Her father, Richard Simon, a co-founder of the publishing firm Simon & Schuster, was an accomplished amateur pianist, and her uncles include Henry Simon, a musicologist; Alfred Simon, for many years director of light music at station WQXR in New York; and George Simon, the eminent jazz critic. One of Joanna’s sisters is the rising young rock star Carly Simon.

“My father was a frustrated concert pianist,” Miss Simon explains, “and he was determined that I would have the
He plays it all the time. I love it, but since it was forced down my throat, I also rejected it, and when I was in high school, I decided that I would become an actress.” Her theatrical studies continued until she was halfway through college, and included several seasons in summer stock. Thinking that vocal training would help a young actress get work in musical comedy, she began studying with Dr. Marion Freschl, who convinced her that her future lay in the opera house. Joanna continued her vocal studies with Dr. Freschl and did further work at the International Opera Studio directed by Herbert Graf in Zürich and at Spoleto with Gian Carlo Menotti.

Her career was launched in 1962, the year she won the Metropolitan Opera Auditions and the Marian Anderson Prize and made her debut with the New York City Opera Company as Cherubino in The Marriage of Figaro. Soon she was invited to sing with other opera companies around the United States, with symphony orchestras, and at a number of music festivals. She became a particular favorite at Bach festivals. (“I’ve probably performed at more Bach festivals than any other American mezzo.”) According to a fairly reliable source, early in her career she was asked to sing an audition for William Steinberg of the Pittsburgh Symphony. When she arrived at the audition, Steinberg looked appreciatively at the pretty young candidate and said, “Now that you’re hired, what would you like to sing?” Since then she has sung with all the major American symphony orchestras under such conductors as Leonard Bernstein, Eugene Ormandy, and Carlo Maria Giulini.

In 1967, when the Washington Opera Society presented the world premiere of Bomarzo by the Argentinian composer Alberto Ginastera, Miss Simon created the role of the courteous Fantasilea. The premiere was a sensation. The sexual candor of the libretto generated a great deal of publicity for the work, which, because of Miss Simon’s costume, became known as “the topless opera.” (“That was nonsense. I was completely covered.”) Both in Washington and in New York, where she repeated the role in 1968, Miss Simon received superlative reviews for her singing and acting, not just for how well she looked in a body stocking. Reviewing the CBS recording of Bomarzo for this magazine (May 1968), William Flanagan, who had not yet seen the opera, described Joanna’s portrayal as “vivid and lethal.”

This success brought national and international attention to the young singer and was a turning point in her career. “For one thing,” she says, “after Bomarzo, I didn’t have to audition for auditions to get engagements.” New roles she sang in the next few seasons were Carmen at the Bordeaux Opera and later in Israel with Zubin Mehta, Brangäne in Tristan und Isolde with the New York Philharmonic under Leonard Bernstein, and the Countess Geschwitz in the American National Opera Company’s production of Alban Berg’s Lulu. She also began to appear on television on such programs as the Ed Sullivan Show, the Tonight Show, and the talk shows of David Frost, Dick Cavett, Mike Douglas, and Merv Griffin.

She would like to see more classical music programmed on television and radio to build audiences. “It’s a simple matter of exposure. I forced my young brother, an ardent rock fan who is just out of college, to attend one of my performances in the Beethoven Ninth, and he was quite moved by it. I gave him a recording of the symphony and he plays it all the time.

“It works the other way, too. I’ve always liked rock and play rock records whenever I’m at home—James Taylor, Carole King, Cat Stevens, and Crosby, Stills, Nash and Young. And, of course, my sister Carly looms large among my favorites. I’m on Carly’s album, by the way—I do a wild echoey obbligato in the background on one of the songs. Mainly because of my sister I began to go to rock concerts, and I find them enormously moving. I admire the honesty of the performers and what they’re singing about, and I’m excited by the feeling of rapport and love between rock performers and their audiences. In contrast, our classical concerts often seem pompous and classical audiences jaded. Perhaps it’s because popular singers are so heavily miked that they can create a sense of intimacy you simply cannot get with classical music except in occasional lieder recitals. When I see enraptured rock audiences, I just wish people could come to classical concerts with the same desire to have a good time. And I do see more and more enthusiastic young people at classical concerts. At a St. Matthew Passion I sang last Easter in New York, fifty to seventy-five per cent of the audience was under twenty-five years old, and at Ravinia in June there were a lot of kids wearing sweatshirts that said ‘Mahler grooves.’ So I’m not pessimistic about future classical audiences.”

Miss Simon’s plans for the immediate future include her debut at the Teatro Colon in Buenos Aires in Thomas Pasatieri’s Black Widow in March, and her next April in Bomarzo, which up to now has been banned in Argentina. This season she will also sing Marina in Boris Godunov in Minneapolis and Berlioz’s Romeo and Juliet with the Boston Symphony. “I’ve always wanted to sing Dorabella in Mozart’s Così fan tutte, and after my Salzburg debut I was invited to sing the role in Geneva in 1973. Right now I’m very much excited about creating the role of Raquel in Thomas Pasatieri’s Black Widow in Seattle next March. It is a perfectly marvelous role both dramatically and musically—I have a fourteen-minute monolog—and the part was written especially for me, which is quite thrilling.”

INTERVIEWED separately, Pasatieri explained why he had chosen Miss Simon. “Joanna is the personification of the word ‘woman,’ which is what the role of Raquel is about. She looks fantastic, she is a fantastic actress, and she’s a fantastic singer. She knows theater, art, movies, literature, and even the work of such popular singers as Peggy Lee and Aretha Franklin, and all these things influence her performance. She is an operatic sex symbol, but her innate sensuality is tempered by a kind of femininity that never becomes cheap. You get from Joanna an intense theatrical experience. I expect her to bring to the role a dimension that would be impossible for any other opera singer.”

According to Miss Simon, giving this intense theatrical experience cannot be planned. “Good opera, like good theater of any kind, should excite the audience, but you cannot program a ‘guilt’ reaction. Different singers excite the audience in different ways. Some do it with magnetic personalities that make you want to watch them whenever they are on stage, and others who lack that star quality excite the audience with sheer vocal display and beauty of sound. Some singers, such as Placido Domingo and Sherrill Milnes, have both. I’ve worked very hard on my voice until I’m now pleased with the sound I make, but I’m not obsessed with it. I’m much more involved with credibility and an affinity for the music I sing. I never go on stage unless I feel so secure vocally that I can devote full attention to what I am saying with the music in terms of drama and emotional communication with the audience. And communication is what I think it is really all about.”
MUSIC IN THE AIR

In which the author draws attention to an aspect of ecology that has so far escaped a justifiable scrutiny

By Paul Kresh

IN HIS Utopian novel Looking Backward, Edward Bellamy wrote, nearly a century ago: “If we could have devised an arrangement for providing everybody with music in their homes, perfect in quality, unlimited in quantity, suited to every mood, and beginning and ceasing at will, we should have considered the limit of human felicity already attained.”

Like so many of Mr. Bellamy’s prophetic notions in that book, this one has come true—but not precisely as he foresaw it, such wishes having a way of backfiring when they are granted. True, Bellamy was advocating only music in the home, and with the important qualification of its “beginning and ceasing at will.” What he had in mind was a central library of high-class selections, with telephone wires connected to receivers in residences all over Boston (the locale of the novel). In Bellamy’s Utopia, you asked for what you wanted and it was transmitted to you. Today, we have music everywhere, without beginning and without ceasing, but “the limit of human felicity” seems no closer to attainment than it ever was.
Only recently, Emily returned from a trip around the corner to our local bank looking absolutely shattered. "If there's a nursery rhyme I hate," she burst out, "it's the one that says 'She shall have music wherever she goes.'"

Emily has a way of backing into her anecdotes, telling you the moral first and the tale afterwards. "What happened?" I coaxed.

"Well, I walked into the bank to cash one little check so we could pay the cleaning woman. I'm standing there figuring out our balance—which I don't have to tell you is at the danger point—and all of a sudden a terrible glumness stole over me. I mean, I felt practically suicidal. There seemed no use in going on. Our low bank balance just wasn't enough to account for it. And then . . . then I became aware of the music. You know? The music they pipe into the bank?"

I knew and I nodded.

"What do you suppose they were playing?" she challenged.

I threw up my hands. It might have been anything. I had gone into that branch once to buy a lottery ticket, and it was offering Love for Sale in an arrangement for two hundred and two strings.

"What, dear?" I asked, holding my breath.

"They were playing Why Was I Born, Why Am I Living?," Emily disclosed, "that's what. At first I couldn't quite place it. Then it came to me. Helen Morgan draped on a piano! I got so depressed I had to fight back tears. I almost left without cashing the check."

I KNEW indeed what Emily meant. The music that comes to us through the air and over the wires courtesy of Muzak and other corporations may well be exerting a subtle power over our lives, something like what astrologers believe to be the influence of the heavenly bodies. The city-dweller in particular is its special captive, for incessant music follows her— or him—wherever she—or he—goes. In the opening passage of Rachel Carson's book Silent Spring, humanity awakens to a still world, all the birds having been poisoned by insecticides. Now, most birds fled New York and other cities long ago on their own, but what they left behind was not, unfortunately, silence. Like the emperor in the fairy tale, we have traded the real thing for a mess of mechanical nightingales, and their endless chirruping seems to affect the human spirit in ways their merchandisers did not predict.

As long ago as 1949, Harold Ross, the cantankerous editor of The New Yorker, tried to caution us. He went so far as to testify at public hearings against the advertisements that had just begun to be broadcast in Grand Central Station, warning that "the individual is becoming the captive of the soundmakers and is losing the right to choose whether he listens or doesn't listen"—just the opposite state of affairs, in short, from Bellamy's dream of music "beginning and ceasing at will!" A few weeks after Mr. Ross issued his first warnings, a hospital in Albany, New York, began feeding semi-classical "background music" into its rooms and corridors to cheer patients and visitors. Undaunted, Ross went on battling in the pages of The New Yorker, and eventually was able to stave off audible commercials on buses and streetcars as well as in railroad terminals. We know now that his was a futile finger in a riddled dike. A few days ago, Emily, while reading to me (as is her pernicious habit) from the pages of the New York Times, brought to my attention an item reporting that Dr. Michael De Bakey, the famous heart specialist, is now prescribing music as therapy in the operating rooms of his hospital in Texas. Ross must be turning in his grave.

Emily and I love music, but we like to listen to it, not overhear it. Our compulsion for listening is so strong, in fact, that we once went all the way to the fifty-fourth floor of a skyscraper (we were supposed to get off at twelve) in order to hear all of It's Only a Paper Moon in a beguiling arrangement for saxophones, fiddles, and cocktail piano. (In the world of wired-in music, if you haven't noticed, it is always circa 1930, and cocktail time. There is something dislocating about stepping into the elevator of an office building early on a weekday morning, already shaking a little with foreboding at the problems that may be lying in wait on one's desk, and being greeted by a tinkling supper-clubby arrangement of Cocktails for Two. It starts the day just a tiny bit lopsidedly.) Background music, however, is so stealthy in its approach that for years I don't think Emily and I were even aware of its existence. It was only one day when we took our seats at a table in a certain mid-town eatery and I reached for the menu, picking up instead a printed program naming the pieces to be piped in for the entire week, that we began to suspect what was happening to us. Since then, there have been days when the entire history of Tin Pan Alley seems to be floating vaguely by our ears, from dehydrated interpretations of Dardanella, which my mother was humming when I was in diapers, to a Mantovani-ized transcription of Aquarius that the crowd on the stage for Hair would be hard-pressed to recognize. And incredibly, no matter what era the selections come from, they all sound alike. It is probably not beyond the boys who stay up nights processing all that grist in the Muzak mill to come up with an arrangement of something from Schoenberg's Pi-
errort lunaire so innocuous that it would not give pause to the most genteel of Schraff's customers as she tackled her apple pan dowdy special.

The people at the Muzak Corporation feel differently about all this, of course. They are prompt to tell you that Muzak is not meant to be listened to—just overheard or "half-heard." A "background memorandum" for the corporation issued by Dunwoodie Public Relations, a document which Emily somehow has managed to get hold of (she won't reveal her source, who, she says, has now gone underground), tells how the various types of programming are designed to "reduce fatigue and nervous tension" among office workers, "relieve worker tension and boredom" in manufacturing plants, and "relax customers and provide an attractive surrounding environment" in public areas such as restaurants, hotels, airline terminals, and supermarkets. "Muzak," the memorandum reveals, "transmits scientifically planned programs every working day and night to an estimated seventy-five million people in factories, offices, banks, restaurants, and hundreds of other commercial and noncommercial areas." The document speaks of the "scientific application of music to the working environment and personnel efficiency," leading to "a reduction of lost-time in job performance, absenteeism and accidents."

Muzak programs in factories, based on "scientific studies," are designed to "parallel the working day"—to stimulate workers when they are tired in mid-morning and mid-afternoon (around 10:30 AM and 3:30 PM)—and to "reflect the worker's boost in spirit" at other times. Tempo, rhythm, instrumentation, size of orchestra—even surveys asking the workers what they themselves prefer—are all taken into consideration in planning. Brasses are considered "stimulating," woodwinds less so, and strings are the lowest in "stimulant value." There is much attention given to "ascending" and "descending" stimulation.

Muzak has grown from humble beginnings. When William Benton of Benton and Bowles started Muzak in the early 1930's, the company intended its soothing stuff only for restaurants and waiting rooms. Today at Muzak, now a division of the Wharten Corporation, they employ Dr. F. William Wokoun, a psychologist with eleven years' experience in "human engineering" at the U. S. Army's Aberdeen Proving Grounds. They record all their own music, using such studio musicians as guitarist Al Caiola, saxophonist Phil Bodner, trombonist Warren Covington, and pianist Dick Hyman. About twenty-four new tunes are recorded every month. The company's annual volume—including fees, installations, and sales of audio equipment to customers who want to buy it outright—is estimated at $40,000,000, so Emily claims. When a new Broadway musical opens, Muzak likes to get right to its customers with its own arrangements of the melodies in the score. The programs are recorded on "mile-long magnetic tapes," made into discs, then transferred once more, on thirty-six giant tape recorders, to eight-hour tapes to be sent to Muzak franchises all over the country. These tapes in turn are transmitted by leased telephone lines or multiplex radio signals to the "outlets," which range from bus terminals to a New York hospital's intensive-care unit for cardiac patients, where "feelings of serenity" are supposed to be maintained (easy on the brasses is the rule for that outlet).

Muzak's president, U. V. Muscio, doesn't like to hear Muzak referred to as "background music" at all. "We're specialists in the physiological and psychological application of music," he says. Muzak regards the product issued by its rivals, including Minnesota Mining & Manufacturing, as unscientific stuff. Emily and I know from experience what Mr. Muscio means by "physiological" and "psychological" application. We have learned to be particularly wary of the piped-in music designed for us by those "human engineers" on our visits to the supermarket. Roving the aisles on Saturday morning, already in a state of light hypnosis, I have been known to sink so deep under the influence of a balmy arrangement of Jeanine I Dream of Lilac Time or Yesterday that I have tossed into my cart large quantities of costly gourmet foods—chocolate-covered grasshoppers, mint-flavored caviar, sherry-enriched anchovies—which somehow are never consumed. Only the zing of the cash register announcing its shocking total at the checkout counter pulls me back to reality.

But the problem goes far beyond Muzak. Nowadays music comes at you from every imaginable source, at all times and everywhere. It isn't always that euphoria-producing scientifically designed Muzak-type stuff, either. At Christmas, we have the Salvation Army bands on corners, the blast of Rudolph the Red-Nosed Reindeer from department-store windows, and the echo of Christmas carols broadcast with excruciating distortion over public-address systems and even from the rooftops of churches. There are the inescapable bands marching down Fifth Avenue on holidays, in an endless series of parades by ethnic groups aggressively blaring their characteristic music through the streets. There are no options, for ears do not have lids. There is no "beginning and ceasing at will;" it's "unlimited in quantity," all right, but not quite as "perfect in quality" as Mr. Bellamy longed to have it.

At an Italian festival in Greenwich Village last
summer, Emily and I counted fourteen phonographs and radios all competing against one another, while in mid-street, down past the stalls of sausages, pizzas, and games of chance, a lad came through the crowd with a transistor portable to his ear, marching to the music of God only knows what different drum. Some subway trains in New York already speak to you brusquely as they enter stations (“Toity-fourt’ Street. Watch da`doors”), and music is sure to be next. Music wafts eerily above the artificial avenues of World’s Fairs and trade expositions. It blares out of the opened doors of bars, basement poolrooms, and bowling alleys. It drowns out the sound of the ocean at beaches and pursues us into the sky on planes.

Music on a long plane trip is a particularly unsettling experience for Emily and me. First, they supply you with these freshly laundered earphones. It takes some time to figure out how to plug them in and how to twist the volume control so as not to go deaf before the program starts. Emily, no matter what channel she chooses, always gets the feeling she’s missing something and begins clicking from number to number. By the time she has settled on a program she likes, we’re about to land. I, on the other hand, stick doggedly to one channel, and as a result I have heard the “Bell Song” from Lakmé, an operatic chestnut of which I am not extraordinarily fond, up to three times in the course of a single journey. Airline music also is a little shaky on the technological side, prone to blur without warning, to waver in speed, or to sink to a murmur as the voice of the captain, oblivious of the fact that your favorite passage in somebody’s violin concerto has just begun, starts telling you your altitude or warning of bumpy conditions ahead.

One evening Emily and I asked a restaurateur who we had grown to believe valued our patronage to lower the volume on a jukebox he had recently installed, because we wanted to be able to converse over our dinner. The man looked at us as though we were intruders from another planet. He swept his hand around to indicate the assembled diners and call our attention to the rapt expression on almost everybody else’s face as, just then, an anguished, booming voice from the gaudily lighted machine told of the voice’s suffering at the hands of some woman unknown to us but evidently familiar to everybody else in the room. We finished our meal in silence—ours, not the jukebox’s. (But I have learned that there is a small silver lining to this cloud: for a quarter, some jukeboxes let you purchase three minutes of silence!) Travelers tell us that such noise pollution is the same throughout America. And other countries are no longer safe, either. Muzak, for example, has extended its empire from Finland to Peru, with branches in Japan, New Zealand, England, Germany, Argentina—in all, twenty-three countries so far.

I have a particularly terrifying recurring nightmare that stems from a kind of conglomerate memory. Emily and I are seated in a touring bus, having purchased a ticket to go from Florence to Ravenna to see the mosaics. Nobody has told us the bus is for tourists; we thought we were boarding ordinary public transportation. Now, as we pass some of the loveliest landscapes in Italy, we perceive that the windows are all shut tight, and loudspeakers, turned up beyond the threshold of pain, are pouring out a frenetic arrangement of Amapola (or maybe it is La Vie en Rose this year). Above the din, the “hostess” of our tour is shouting in broken English, “Is everybody ‘oppy?” Later we pause for a Cinzano at a roadside cafe where the bartender’s radio is blaring out more of the same. “We are all so ‘oppy ‘ere,” the hostess is exclaiming to the gawking crowd, “maybe we stay longer and skeep Ravenna, yes?” I wake up as my own voice thunders “No-o-oo-oo—!”

Where will it all end? On a trip to Mars, no doubt, with the Blue Danube Waltz caressing the ears of spaceship travelers much as it did on that ride to the moon in the movie 2001. And Emily and I will be sitting there in our space suits, docile captives of the “human engineers,” vainly trying to read. Or else, like that lady in Newark, New Jersey, who kept getting radio station WOR through her dental fillings, we shall ourselves wind up totally wired for sound, unable to think of anything but the words to Tea for Two as some group like the Melachrino Strings pipes the melody directly into our endlessly serenaded brains. Would Edward Bellamy have called that “the limit of human felicity”? 
If you’re an American composer, you’re blues-oriented
BY ROBERT WINDELER

AT A TIME when Los Angeles is rapidly becoming the pop music capital of the world, and the composers and singers who increasingly move to L.A. are more involved mutually than ever in the past—following and attending each other’s club dates as avidly as groupies, playing on each other’s recording dates—Randy Newman, Los Angeles-born and heir to a distinguished Hollywood musical tradition, seems determined to remain a recluse. Let Carole King, all the Taylors, Joni Mitchell, Mary Travers, and the rest race around shoring each other up and augmenting each other’s sounds. Randy Newman lives in virtual isolation in a canyon, not near Hollywood, but in the upper-middle-class suburb of Brentwood, with his German-born wife and two young sons.

Even his infrequent ping-pong games with Harry Nilsson, Newman’s one regular contact with his contemporaries, are a thing of the past. He’ll hear of something in the outside world he missed, and lament: “That’s what I get for hiding out.” But his forays into the workaday pop world are usually disastrous. Newman had long admired the singing of Linda Ronstadt, and she in turn was a fan of his writing. They finally met one afternoon at the Troubadour, where Linda was rehearsing. She was excited; he recoiled. “I took one look at her feet and I knew I couldn’t be with her,” he later told a friend. “Anybody who walks around the Troubadour in bare feet must be nuts.”

Newman’s withdrawal is near-total, consistent, and as much a theme in his songs as it is a life-style. “By nature, musicians are isolated,” he says. One of his most recent compositions is called It’s Lonely at the Top. Harry Nilsson did an all-Randy Newman album, “Nilsson Sings Newman,” but Randy says, “I can’t ever imagine doing that, making a whole album of some other writer’s songs.”

Randy Newman, at twenty-seven, is also proof that cynicism can start in any environment and that the blues don’t have to spring from deprivation. His chief lyrical preoccupation is middle America, culturally and geographically. He has written songs about Kansas and Utah, and the only composition he’s ever recorded that’s not his own is Stephen Foster’s My Old Kentucky Home. Another recent Newman original is Hard-Hat Blues.

Although he sometimes caricatures his middle Americans, as in his much-recorded Love Story (no relation and well prior to the film, book, and score of the same name):

Some nights we’ll go out dancing
If I am not too tired;
Some nights we’ll sit romancin’
Watching the Late Show by the fire.

(only a cynic could call a lyric like that “Love Story”), he just as often sympathizes with them, as in Cowboy:

Cold gray building where a hill should be
Steel and concrete closin’ in on me.

Newman’s lyrics “are satire in the sense that they exaggerate some facet of ordinary human behavior.” But just as important a theme is “alienation and the conflicts that confront young people today.” Newman’s best-known song, Mama Told Me Not to Come, a number-one hit by Three Dog Night, is about innocent boys who find themselves at a pot party, bewildered by the whole thing. Randy is not taking a stand on marijuana in the song, but merely writing about pressure and confusion. Let Me Go, Let Me Go, from the film Pursuit of Happiness, is his “private protest against kids getting too much s— laid on them at an early age.”

Interviewing Newman at home is like catching an ordi-
nary businessman at home on a Saturday. (There's even a playpen in the back yard.) Except this is the middle of the week, his wife and children are out, he hasn't heard the bell, and you come upon him working at the piano in an upstairs study, playing and singing, as fully possessed by his own output and the way it should sound as Laura Nyro is. He is working on a new film score.

Newman is short, slight, with fuzzy dark hair, a pallid, razor-nicked complexion, stray stubble on the chin. He wears thick telecope-lens glasses, thanks to a painful eye operation after a car crash. His levis look brand new and stiffly pressed (conversely, his one suit is rag-tag and baggy). "I've never cared for clothes," he says. "I have no visual sense and I'll always let somebody tell me how to dress for something important."

He is as much a recluse as it is possible to be and still be professionally active. He has few friends, no hobbies but his children, and he reads a lot. His rebellions are all private, not part of collective ones. Charitable about most other singers and composers, he is a genuine admirer of his own output and the way it should sound as Laura Nyro says he "wouldn't know how to describe my songs." Still, times keep changing, and things keep evolving, and suddenly different kinds of movies from the new Hollywood need new kinds of music. Even as Lionel and Emil are trying to understand his songs, and compliments him on them, Randy announces he is writing and arranging the scores for two movies, Cold Turkey and Pursuit of Happiness, and seeing if a songwriter can also become a composer. Understand, however, that—like everything else—it's on his own terms: "Movies like The Graduate and Midnight Cowboy were scored with good commercial soundtracks in mind. Like my uncles, I think movie music should add something artistically and dramatically, and not just produce record sales."

Randy had never even thought of an orchestra's playing his work until he arranged Is That All There Is? for Peggy Lee's return to pop prominence. And now he's locked into a "totally different type of discipline"—as well as being virtually locked into the upstairs room, where he composes, by the producer, agent, or manager of the moment: like most writers of any kind, he doesn't really like to write. "I reach a point where I don't want to have to face it any more. It's torture to have to drag myself to the piano, sit down and grind it out." Sometimes he has managed to avoid the torture for periods of as long as two months, but "I always go back," he says. "I get to feeling bad about not writing anything."

Growing up affluent in a close family and in the shadow of show business didn't prevent things like the car accident and operation, nor a lot of other plain hard luck: "Whenever the kids did anything wrong, I was the one who got caught." He attributes some of his skepticism to his childhood. "Leave it to me to find the cloud around the silver lining."

A friend once heard Newman say "the cancer ads on television work from a false premise—they assume everybody wants to live." That doesn't mean Randy himself is suicidal or in a permanent depression. It's just that he thinks much of humanity is unhappy, and he's equally convinced they don't want to be told about it. "There's a tendency to want to be happy all the time. People don't want to hear about how hard it really is."

No career but composing ever occurred to him, and in his senior year at University (."Uni") High near UCLA he started writing songs. He went on to UCLA—but, more important, he joined Metric Music Studio in the halcyon days when Glen Campbell was just a backup guitarist for hire and other big pop music names were getting started there. Randy's academic career was spotty: "If I couldn't get a parking place at UCLA, I'd drive over to the studio instead." "I never did graduate, ironically because he didn't fulfill a performance requirement for his music degree. He was in the chorus for a while but just moutned words; no sound came out."

PLEN'TY of sound came out of Metric, however, and Randy teamed with another fledgling composer-singer, Jacky DeShannon, on She Don't Understand Him, and with a studio secretary on a lost and underrated Petula Clark recording, I Can't Remember Ever Loving You. After a few years as "B-Side Newman," an underground favorite and a musician's songwriter, he emerged into the overground with I Think It's Going to Rain Today (recorded by forty different artists) and Mama Told Me Not to Come, and now Randy Newman copyrights are worth more than a million dollars. "Figures like that kind of turn you around."

Newman says he "wouldn't know how to describe my songs. I go through phases, rock-and-roll pretty much, blues-oriented—but then so is ninety per cent of pop music. If you're an American composer, you're blues-oriented—Gershwin, Ives, Bernstein all were. I don't think I'm particularly cynical about individual people, but I am about government, about organizational-type behavior. I was never even a cub scout; I knew at an early age I didn't want any of that. What interests me is the individual—I'm put off by things, world situations, groups, movements. I have a 1950's view of man's imperfection."

One recent method of avoiding writing or recording (which, despite two Warner Brothers albums and more when he's ready, he hates almost as much: "I have to be pushed and pulled into recording things; I didn't even want to do Mama Told Me Not to Come") has been performing "live," in smaller clubs, selected college concerts, and on TV. He sings mostly (but not exclusively) his own songs in a rough, untrained voice that even his press agent admits is an acquired taste. Of his voice Randy says, "Sometimes I don't like it. It's not pretty in the conventional sense, but nothing is in the conventional sense any more." He accompanies himself on piano and the chat is spontaneous. Or, as he puts it, "performing the way I do is kind of a mindless exercise; it doesn't wear me out like writing or recording. I just figured I should do it instead of complaining about the way other people did my songs."
Before we find ourselves looking down the throat of the cataloging challenge certain to be posed by the advent of quadrasonic recordings, a confirmed collector suggests we make one last effort to silence the lingering echoes of the mono/stereo dilemma.

By RICHARD FREED

When the stereophonic disc was introduced a little more than a dozen years ago, we were assured that it would not render the monophonic disc obsolete (as the LP had 78's in short order) because mono discs could be played on any stereo system without changes in turntable speed, pickup, tracking force, and so on. The "compatibility" was genuine, and certainly reassuring to collectors, particularly those who had already converted extensive 78-rpm holdings to LP. In the ten years of mono microgroove, after all, a far greater number of recordings had been issued than in the preceding forty years of 78-rpm activity, and among them were hundreds of superb performances, many in spectacularly fine sound.

Despite the genuineness of the mono-stereo compatibility, however, and the assurances that mono would not be scrapped, the huge and enthusiastic acceptance of stereo was interpreted by many record manufacturers and retailers (few of whom have anything like real contact with their customers today) as a sign that the mono disc was through. Many mono items were forthwith abandoned, and those that were not were given artificial stereo treatment to bring them up-to-date. Some of these records were labeled to indicate they had been doctored; others were simply labeled "stereo." In the trade, the feeling grew that anything offered without that magic word would be regarded by dealers as prehistoric and unsellable.

By 1967 the record companies had stopped issuing alternate mono versions of new stereo recordings, a sensible move which evoked little complaint. By then, too, many retailers had become extremely reluctant to stock any mono records, so the deletion rate for mono accelerated, and, more and more, reissues of pre-stereo material were being offered in "electronically simulated stereo." When a number of serious collectors and reviewers registered complaints about the phony-stereo treatment of historical and other pre-stereo recordings, however, some of the companies decided to give mono another chance.

The Seraphim label, introduced in the fall of 1966 mainly as a reissue format for material formerly released by Angel and Capitol, has from the outset maintained a policy of issuing stereo recordings in stereo only and mono recordings in mono only. There has not been a single phony-stereo disc on Seraphim, and the mono reissues keep coming (recent examples, on top of much of the "Great Recordings of the Century" series, being the Shostakovich piano concertos with the composer as soloist and the
Heifetz-Beecham collaboration in concertos by Mozart and Mendelssohn). Columbia’s Odyssey and RCA’s Victrola, which had offered reissues of Bruno Walter, Lotte Lehmann, and Toscanini recordings both ways, have settled on a policy of “no more phony stereo” for their historical series, in conformity with the practice of their respective full-price labels, on which such doctoring has been rare.

At about the same time, though, London Records deleted its entire series of Richmond mono reissues, retaining the Richmond label exclusively for operatic reissues in stereo. And, most dishearteningly, 1971 started off with a major setback for the mono disc: effective last January, all mono listings were removed from the regular monthly edition of the Schwann Catalog (now called the Schwann Record & Tape Guide) and the listings transferred to the Supplementary Catalog which Schwann publishes semi-annually in February and August.

William Schwann does not make such moves capriciously. He has been publishing his catalog for more than twenty-one years (during which time two or three other publishers have made starts at producing similar catalogs and have given up on them), and whatever modifications he makes to time are surely based on his interpretation of what retailers and individual collectors want. In this case he must have felt that they wanted tape listings, and that, if something had to give in order to make space for them, there was not much interest in mono discs any longer. Statements published both before and after the change reminded users that the mono items had not been abandoned, but simply transferred to the Supplementary Catalog.

Without questioning the publisher’s genuine concern for what the users of his catalog want, I feel that this move, which may have been based on an erroneous interpretation, may well result in more than minor inconvenience. Since the Schwann Catalog is the universal and indispensable American reference in its field, the consequences could be far-reaching, indeed, in terms of the mono disc’s survival. Here is how executives of some companies which produce mono records reacted last winter at the time of Schwann’s announcement: “The purists didn’t like the idea of phony stereo, so we reissue the earlier recordings in genuine mono; but now these records are taken out of the one catalog everybody uses, so no one is even aware they’re available, leaving us with the alternatives of either putting them out in phony stereo, after all, so they’ll get back in the catalog, or simply dropping them altogether.”

The people who are interested in the recordings in question do not want them in phony stereo, but they do want to know about their existence. Most individual collectors simply refer to the monthly Schwann to see what is available, and make their selections from what they find there; few, it seems, bother to check the Supplementary Catalog for recordings not listed in the monthly edition. It would be doubly ironic if older recordings were given the phony-stereo treatment in order to get them reinstated in the monthly Schwann, for not only was lack of space the basic reason behind their removal in the first place, but it would probably cost the publisher more to put them back now than it did to remove them (all the disc numbers would have to be reset).

There is an enormous quantity of recordings—both disc and tape—available in this country, and it swells considerably every month. In order to keep up with the volume, Mr. Schwann has from time to time condensed certain listings and removed some sections to form separate catalogs. The regular Schwann, which runs to about three hundred pages, has had to be pruned periodically, and this has led to the creation of the Supplementary Catalog, the special Country and Western Catalog (published once a year), and another publication listing children’s records, as well as the less frequently produced Artist Issue. The Supplementary Catalog, to which all mono discs have been consigned now, has for some time been the repository for all listings of popular LP’s more than two years old (the more recent ones are in the monthly edition), religious records, older jazz records, musical-comedy and film music, and spoken-word recordings. It is also where one finds listings of certain imported labels (some are in the monthly edition) and several domestic labels which are not widely distributed. (One traditional category, “Popular Music of Other Countries,” seems now to have disappeared from both editions.) This distribution of listings means that both the “classical” and the “popular” collector really ought to be equipped with the Supplementary Catalog as well as the monthly edition—and use both. The pop collector will in some cases find an automatic reminder (under the Beatles, for example, one is told, “See also Supplementary Catalog”), but the classical buff must remind himself that what he doesn’t find in the monthly edition might turn up in the other volume, in mono or on an import label—or both.

The Schwann undertaking, without which no retailer or collector would dream of getting along, is as vast as it is invaluable, and its imperfections and omissions are no more than what is inevitable in such cases. Mr. Schwann’s publications have become so much a part of the life of the record industry, and of the consumers who support it, that they tend to be regarded as a public service, and those who disagree...
with one or another of his policies sometimes express themselves with the vehemence of outraged taxpayers. With no vehemence at all, but in gratitude for more than two decades of service and confident anticipation of continued benefaction, this collector would urge Mr. Schwann to give serious consideration to dividing his catalogs on the pattern of those published in England by The Gramophone. Instead of a "basic" catalog and a "supplement," the Englishmen publish a classical catalog and a popular catalog, each of which includes all current recordings in its respective categories.

The Gramophone's classical catalog, published quarterly, is astonishingly thorough in its listings: every title; full contents of every "collection" record, meticulously cross-referenced; an opera section giving detailed cast information on every complete opera recording as well as the librettist's name and the date and place of the work's premiere; and even mail-order records. In the principal section, every individual excerpt from opera, ballet, and incidental music is not only listed, but its position in the work specified; titles are given for the component pieces in such collective works as the Debussy Préludes and the song cycles of Schubert and Schumann; and individual song titles are all listed, with the accompanist and the author of the text given in each case.

The combination of the greater bulk of record offerings in this country and the monthly instead of quarterly publication schedule make it virtually impossible for Mr. Schwann to match his English colleagues' thoroughness. The latest issue of his monthly catalog shows more than thirty listings of Schubert song collections (in addition to those of the song cycles), including Fischer-Dieskau's twenty-five-disc set on Deutsche Grammophon. Imagine how many additional pages would be required to list every title—and how many more for similar listings of the individual chorale-preludes of Bach or Satie's piano pieces! But the English format represents an eminently sensible division, for people who buy records are generally oriented to a "classical" or "popular" repertoire, rather than to mono or stereo sound or to domestic or imported labels. It would be no less sensible in the United States than in Britain to have one catalog in which all "classical" recordings available in this country are listed—mono and stereo, imported and domestic—and another in which the "popular" segment is similarly covered.

The advantages to the consumer and retailer would be considerable. The user of either catalog would be able to see at a glance whether a given title is available, if it is offered by his favorite performer, how many recordings by a particular pop group are current, etc. The advantages to the publisher would not be negligible, either. No longer would he have to transfer certain pop recordings from one book to the other each month as they reach their second anniversaries. No longer would he have to judge whether certain minor labels merit listing in the monthly or supplementary book.

Perhaps this procedure, if adopted by Mr. Schwann, would not lend itself to continuation of the monthly schedule, in which case a staggered bi-monthly arrangement might be in order. One would hope that it would be possible to issue both the classical and popular catalogs monthly, and it would seem logical that they could be, provided the listings are no more detailed than they are at present. Which leads me to a further suggestion—a different semi-annual supplement to replace the current one (which would disappear, of course, if the total-popular/total-classical division were to be adopted).

As I have already acknowledged, the monthly Schwann, no matter what sort of format the publisher might choose to continue or to initiate, simply cannot include individual listings of every Schubert song and every Satie piano piece, as the English catalog does. Let it be further acknowledged that not every collector will have the space or the inclination to save all back issues of Schwann to check for contents of "collection" records (given only in the original "New Listing" when the record is first released). Also, it would be worthwhile to have some information on mail-order labels: the Musical Heritage Society not only offers more low-priced records than any other single source, but possibly more records at any price than any other classical label (about eight hundred at present, with the emphasis on underexposed repertoire), and the Reader's Digest has produced some exceptionally interesting recordings with such musicians as Charles Munch, Earl Wild, and Alexander Gibson. With these considerations in mind, it would be a great convenience to have a semi-annual (or even annual) catalog listing detailed contents of all "collection" records not broken down in the monthly edition. (Strauss waltzes, Hugo Wolf songs, organ music of Bach, Verdi arias, Bernstein's Greatest Hits, etc.) as well as records currently available from major mail-order sources (MHS, Reader's Digest, International Piano Library, etc.).

This collector hopes Mr. Schwann will give serious consideration to both of these suggestions, which just might add to the longevity of many worthwhile recordings, both mono and stereo, and make life a little easier for both the casual shopper and the confirmed record nut. Surely no one else has the experience or the resources—or the deep sense of personal commitment—to do the job better than he.
J. S. BACH'S HARPSICHORD CONCERTOS IN AN INTEGRAL SET

Columbia's new recording with Igor Kipnis and the London Strings is a triumph

Columbia's set of all of Bach's concertos for harpsichord and orchestra, the first substantial multi-record project by my colleague Igor Kipnis and long overdue, has just been released. It is a triumph. Its only real competition is the set made by Gustav Leonhardt and Herbert Tachezi for Telefunken, and excellent though that version is, I am inclined to think that Kipnis' is even better.

The two sets cover slightly different ground. They have in common the seven "standard" solo harpsichord concertos, and each includes the fragmentary eighth concerto as reconstructed by its respective soloist. But whereas Telefunken's five-record set goes on to include the half-dozen concertos for two, three, or four harpsichords, Columbia's (on just four discs) elects to concentrate instead on works with a single solo harpsichord, and its "extras" are the two works in which that instrument is joined by solo violin and flute—the Fifth Brandenburg Concerto and the Triple Concerto in A Minor.

I was careful to say "single solo harpsichord," because Kipnis and conductor Neville Marriner do employ a second instrument for the continuo part. This brings me to the two sets' merits, which, like their scopes, are different. Leonhardt (who plays all the solo concertos except the D Minor in the Telefunken set) and Kipnis are alike perceptive scholars and superb musicians. The most attractive single feature of the Telefunken performances is, I think, their use of period and reproduction instruments tuned to the old low pitch, for this resource achieves the closest possible approximation to the actual sound Bach would have heard. I also find Leonhardt's solution of the slow-movement problem in the reconstructed D Minor Concerto more convincing than Kipnis'.

On the other hand, the use of a separate continuo harpsichord in the Columbia set certainly helps to clarify the formal articulation of the concertos (as does the effective spatial separation achieved by the recording), and I personally prefer Columbia's use of multiple strings for the orchestral parts to the mostly one-to-a-part chamber-musical setup chosen by Telefunken—the use of single instruments too often gives excessive prominence to what are essentially subsidiary string lines.

But more important than this is the actual quality of the playing by Kipnis and the London Strings (no doubt a pseudonym for Marriner's Academy of St. Martin-in-the-Fields, which was presumably not free to record for Columbia under its own name). Kipnis is irrepressibly fresh and crisp. The general effect of his playing is lighter than that of Leonhardt's, and, unlike Leonhardt (who is more austere), Kipnis allows himself considerable (yet always tasteful) latitude in the embellishment of restatements—his grace and spontaneity would surely have delighted the composer. Soloist and conductor are particularly good at capturing the essential rhythmic character of
each movement. They even manage the difficult task of distinguishing between alla breve and 4/4 time in similar fast tempos.

It may be this concern for authenticity of pulse that occasionally leads to a slight sense of insecurity in the actual speed of the music. The performers have aimed always for live rhythm instead of mechanical meter, and any small problems that result are vastly outweighed by the musical gain. However, one particular surge of speed in the first movement of the F Major Concerto may, I suspect, have resulted from the splicing in of a different take.

While I am on the subject of the recording per se (which is, for the most part, excellent), I must note a clumsy tape-splice in the first movement of the A Major Concerto—a flaw that could easily have been repaired—and I must also register my regret that the second violins were not placed on the conductor’s right, away from the firsts. There are many antiphonal passages, especially in the D Minor Concerto (the “standard,” not the reconstructed one), that would have gained immeasurably from that arrangement of the strings.

All in all, though, this is marvelous music marvelously performed and well produced (by Paul Myers). And now, if Columbia or anyone else is listening, may we have the English Suites from Kipnis? And then the French Suites? And then . . . well, the repertoire is enormous, and Kipnis ought to be recording it all.

Bernard Jacobson

BACH, J. S.: Harpsichord Concertos Nos. 1-7 (BWV 1052-1058); Harpsichord Concerto No. 8, in D Minor (BWV 1059, reconstructed by Igor Kipnis); Brandenburg Concerto No. 5, in D Major (BWV 1050); Triple Concerto for Violin, Flute, Harpsichord, and Strings, in A Minor (BWV 1044). Igor Kipnis (solo harpsichord); Neville Marriner (violin); Hans-Martin Linde (flute); Jeanne and Marguerite Dolmetsch (recorders); Janet Craxton (oboe); Colin Tilney (continuo harpsichord); London Strings, Neville Marriner cond. COLUMBIA M4 30540 four discs $23.98.

BACH’S MUSICAL OFFERING TO FREDERICK THE GREAT

The beautiful and sensitive playing of Vienna’s Concentus Musicus distinguishes a Telefunken release

We have at long last, I think, a performance of J. S. Bach’s Musical Offering that is the equal of the music itself: Telefunken’s new recording with the Vienna Concentus Musicus under the direction of Nikolaus Harnoncourt.

The story of the work is well known, but it bears repeating. In 1747, Johann Sebastian went to visit his son Carl Philipp Emanuel at the court of Frederick II in Potsdam, near Berlin. The old man still had a fine reputation as a giant of the old school, and quite naturally he was expected to demonstrate his skill by improvising a fugue. The king himself supplied the theme—on the piano, not the harpsichord!—and Bach immediately improvised upon it to the suitable astonishment and gratification of the court. Nevertheless, Bach, apologizing profusely for the music’s unworthiness, took the subject home and proceeded to run it through the most incredible series of ricercari, canonic, and fugal treatments, culminating in a trio sonata in which the new court and the old learned musical styles are brought together in perfect harmony. This work, one of the few from Bach’s pen to have been printed in his lifetime, was then engraved and duly presented to the king by C.P.E.

The jacket-note claim that the instrumentation used in this Telefunken recording is that of the original may be a little overenthusiastic. The original notation was in the old strict style, with a separate line for each part. Except for the trio sonata, there are no indications of instrumentation, and, as the music may not even have been performed at the time it was written, they may not have been necessary. However,
er, the instrumentation decisions made by Harnoncourt and his musicians are undoubtedly apt: strings, including tenor viola, plus transverse flute and harpsichord (not piano!). But aptest of all are the beauty and the sensitivity of the playing, always alive to the meaning and the breathing curve of the music. No pomposity or pseudo-antiquity or pedantry intrude; there is only poetry and style. These are not dry musicological bones, but musical flesh and blood.

Eric Salzman


ENTERTAINMENT

TOP-DRAWER FILM SCORES BY BERNARD HERRMANN

A London release presents some impressive examples of the music of an absorbing and original talent

Not so long ago, the movie-music discography was enhanced by the addition of a splendid London album called "Music from the Great Movie Thrillers." It consisted of excerpts from various Bernard Herrmann scores for Alfred Hitchcock films, in vigorous performances by the London Philharmonic under the composer's direction. Included were passages from Psycho, Marnie, Vertigo, North by Northwest, and a sly "Portrait of Hitch" based on the perky score from The Trouble with Harry. The Phase Four sound was big, clear, and sharp, and Mr. Herrmann's efforts as Hitchcock's court composer were vindicated: separated from the movies whose suspense it heightened, the music was clearly both absorbing and original.

Now comes a sequel—"Music from Great Film Classics"—and the results are even more impressive. There's a Memory Waltz from The Snows of Kilimanjaro, spacious and full of yearning, that evokes the spectacular scenery that was (next to Hildegarde Knef) the movie's best feature; the dizzying Sleigh Ride scherzo as well as the barn dance from The Devil and Daniel Webster, marked by a fugato episode indicating the sinister presence of Mr. Scratch among the celebrants; and the diversionism known as Welles Raises Kane, made up of music from both Citizen Kane and The Magnificent Ambersons—a score fresh, salty, and tricky enough to stand up and be proud in any concert hall.

An entire side is devoted to a suite from Jane Eyre, all Gothic richness and atmospheric description, in-
including passages suggesting the young Jane’s ride to Thornfield Hall, her meeting on the moors with Rochester, the fire at the hall, and some simmering storm music. These all have their literal “programmatic” elements, and are therefore not entirely free of old-fashioned Hollywood-bottled corn syrup, yet they serve to show that even such stock situations can be handled in a truly musical way by a master.

Mr. Herrmann, who supplied the liner notes as well as the music for this excellent release, tells how he was inspired by working on the Jane Eyre score to try an opera based on Wuthering Heights. This work has yet to reach these shores either in performance or recording. In the meantime we can enjoy the movie scores on the late show—and as marvelously recreated here.

Paul Kresh

HERRMANN: Music from Great Film Classics. Excerpts from Jane Eyre, The Snows of Kilimanjaro, Citizen Kane, The Magnificent Ambersons, and The Devil and Daniel Webster. London Philharmonic Orchestra, Bernard Herrmann cond. LONDON SP 44144 $5.98.

JONI MITCHELL SINGS HER BLUES

Provocative images and thoughtful messages add up to an album that is quite probably her best yet

JONI MITCHELL continues to demonstrate that she is not only an actress-singer but a composer of considerable power: her newest (and aptly titled) album “Blue” for Reprise is an unqualified success on both counts. It is a collection of what once were called “torch” songs, but Miss Mitchell adds an extra dimension to her “my man’s gone now” theme by introducing a spare, satirical element that is sometimes directed at herself, sometimes at her partners. It is this balanced dispassion which makes her work truly womanly rather than merely girlish.

And, if her songs are based on personal experience, she certainly does seem to have had a rough time of it in the Game of Love. In the song California she meets a red-neck on a Grecian isle who “... gave me back my smile/But he kept my camera to sell.” The subject of My Old Man is apparently given to irregular disappearances, thus causing Joni to collide with the blues and to discover that “The bed’s too big/The frying pan’s too wide.” That last phrase (think about it) is a genuine image, provocative and palpable. There are others like it running all through her compositions, and they regularly bring the listener to sharp attention with the unmistakable clang of sardonic truth.

Though the subject of all these songs is the blues, Miss Mitchell’s extraordinary performances of them quickly remove any possibility that they might all add up to a bad case of the sulks. For instance, her nervously, slightly weird soprano makes My Old Man a touching and poignant story rather than a tiresome, weepy complaint. Also, the near-perfection of her arrangements and accompaniment (both Stephen Stills and James Taylor sat in on guitar during the sessions), the beautifully finished (in the sense of complete) sound of each track, all contribute to what may be her best album yet.

I think the finest thing about “Blue,” however, is its message of survival. “Well, there’re so many sinking now/You’ve got to keep thinking/You can make it through these waves/Needles, guns and grass/Lots of laughs, lots of laughs.//Well everyone’s saying that hell’s the hippest way to go/Well, I don’t think so.” These words sound to me very like a pointed and pertinent warning to that part of a generation that talks a lot about getting it all together but begins to seem less and less capable of really doing so.

Peter Reilly

JONI MITCHELL: Blue. Joni Mitchell (vocals); orchestra. All I Want; My Old Man; Little Green; Carey; Blue; California; The Flight Tonight; River; A Case of You; The Last Time I Saw Richard. REPRISE MS 2038 $5.98, © M 82038 $6.95, © M 52038 $6.95.
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On Columbia Records
BULENT AREL: For Violin and Piano. Matthew Raimondi (violin); Robert Miller (piano). OLILY WILSON: Piece for Four. Robert Willoughby (flute); Gene Young (trumpet); Joseph Schwartz (piano); Bertram Turetsky (bass). ROBERT STERN: Terezin. Dorothy Ornest (soprano); Joel Kronnick (cello); Robert Stern (piano). COMPOSERS RECORDINGS INC. CRI SD 264 $5.95.

Performance: All excellent
Recording: Close-up

The major work in the latest CRI collection is the Olly Wilson Piece for Four, a jazz-informed serial-type work of great vigor and considerable originality. It lacks only a certain degree of continuity—motion, dramatic form—not entirely made up for by the quality of the invention. Bulent Arel’s For Violin and Piano is a solid well-made instrumental work by a composer better known for his electronic music. Robert Stern’s Terezin, settings of children’s poems written in the Theresienstadt concentration camp, is the most ambitious, the most evocative but, finally, the least successful of the three. Perhaps this simple, moving poetical cry requires no setting, no further “interpretation.” All of the performances are outstanding; the sonic reproduction is more than adequate, although some of the solo voices (the soprano, for instance) seem at a greater distance than others. There are excellent notes, as usual, by Joshua Rifkin, and full texts and distance reading on Telefunken. (Landowska’s advocacy, listen to Gustav Leonhardt’s consummate reading on Telefunken. (Landowska’s historic recording is currently unavailable, but in any case I find Leonhardt’s even more satisfying.) My only regret is that, in this second revamping of the Goldberg Variations is a terribly depressing compendium of the results of willful, wrong-headed artistic egotism. Newman bombards Bach’s textures with salvos of inappropriate 16-foot tone that totally distort the scale of the music (a result intensified by the overblown recording quality). With a simulation of stylistic fidelity, he plays notes inégales in some places. But a closer study of Quantz and other eighteenth-century sources, a study based on principles of scholarship and not on a taste for self-advertising bizarrerie, would have shown him that he has sometimes applied this subtle rhythmic resource of the French style quite wrongly: as far as I am aware, the left-hand eighth-notes in Variation Two represent one place where inégales would have seemed completely inadmissible to a cultivated eighteenth-century ear. Furthermore, Newman has observed repeats in fourteen of the thirty variations and omitted them in the rest, so that the listener never really knows where he is. This procedure could just possibly have been accepted as an instance of artistic license; but if you are going to play any of the repeats, then it seems to me quite essential to observe them in the theme itself, and this Newman does not do. Throughout the performance, moreover, there is a curiously mechanical quality in his phrasing, and he plays ornaments far too often before the beat instead of on it.

If you are in doubt about the music’s ability to speak for itself without Newman’s kind of advocacy, listen to Gustav Leonhardt’s consummate reading on Telefunken. (Landowska’s historic recording is currently unavailable, but in any case I find Leonhardt’s even more satisfying.) My only regret is that, in this second Leonhardt recording of the work, which is far more masterfully played than his earlier Vanguard version, the repeats are omitted, as they are in all the other recordings I have heard except Malcolm’s beautiful but less stylish version for Osprey-Lyre.

Newman is an impressive technician (the serious rhythmic instability in the sixteenth variation notwithstanding). If he ever starts thinking about music again, and stops trying to devise new things he can do to it, he will have much to offer.

Anthony Newman was a brief, dazzling epiphany on the harpsichord scene. I say ‘was’ because the enfant terrible of his early idiosyncratic yet stimulating performances has turned out to be father, not to the man, but to the eccentric. Like most of his recent efforts, this reworking of the Goldberg Variations is a terribly depressing compendium of the results of willful, wrong-headed artistic egotism.

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**BACH, J. S.: A Musical Offering** (see Best of the Month, page 80)

**RECORDING OF SPECIAL MERIT**

BACH: Passion According to St. Matthew (BWV 244). Unidentified soloists from the Wiener Sängerknaben; Paul Esswood, Tom Suscliffe, and James Bowman (counter tenors), Kurt Equiluz (tenor), Evangelist; Nigel Rogers (tenor); Karl Ridderbusch (bass), Jesus; Max van Egmond and Michael Schopper (basses); Nikolaus Harnoncourt (cello, gamba); Herbert Tachezi and Johann Sonnleitner (organ); Boys' Choir of the Regensburg Domchor; Men's Choir of King's College, Cambridge; (David Willcocks, dir.), Concentus Musicus, Vienna, Nikolaus Harnoncourt cond. TELEFUNKEN SAWT 9572/3/4/5 A four disc $23.80.

Performance: Authentic re-creation

Recording: Superior

Like the previous Concentus Musicus releases of Bach's St. John Passion and the Mass in B Minor, this recording represents an attempt to approximate as closely as possible the letter and spirit of Bach's times. Those familiar with the work of the admirable Concentus Musicus will know what this entails. On the most obvious level, there are the musical forces themselves: original instruments or reproductions making up a small chamber orchestra, and similarly reduced choral bodies. There are no women vocalists, the high parts being taken either by boys or counter tenors. All of this, of course, was as Bach originally intended it, although for those ears accustomed to most twentieth-century performances, with their far greater number of mixed voices, the so-called "authentic" sound may take some getting used to. The result, however, is well worth the effort. The instrumental sound, first of all, is ravishing. Secondly, there is a clarity to the sound, both instrumental and choral, that one just does not hear in previously recorded versions of this Passion. If the thought of boys singing parts usually taken by women disgusts you, just listen to the youngest singer singing the first arias near the end of the opening side; if that doesn't move you, nothing will. Similarly, those allergic to counter tenors should try to listen with an open mind to the marvelous work of Paul Esswood ("Erlebarme dich," for example).

The choral work throughout is superb—but then it was under the supervision of David Willcocks. The instrumental portion is also of a similar level; it was under the direction of Nikolaus Harnoncourt, who is responsible for the entire interpretation. He has brought out a great many things not usually heard in St. Matthew performances. Some of these have to do with such obvious stylistic details as ornaments, articulation, and phrasing. But there is also the matter of tempo, and here Harnoncourt may raise eyebrows. He has tried in many cases to elicit the dance quality inherent in Bach's arias and choruses, the best example being the grand opening chorus. Thus, the tempos are very often on the rapid side, sometimes (as in the opening and closing choruses) a little too rapid for the spiritual and dramatic expression to emerge unimpaired. These tempos will bother some listeners, but, as I have discovered, hearings lead one to see the vitality of Harnoncourt's ideas even if one is not always in total agreement.

Stylistically, this is a superb production; dramatically and liturgically, there are moments (Continued on page 88)
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Karajan's Meistersinger

At Bayreuth's reopening in 1951, one of its most spectacular productions was Wagner's Die Meistersinger, conducted by Herbert von Karajan. EMI's recording of that historic event is now one of Seraphim's "Great Recordings of the Century"—a collector's treasure.

Now, Angel presents another, equally historic production: Die Meistersinger again, conducted again by Karajan. Recorded under ideal studio conditions, in Dresden, the performance borrowed artists from East and West Germany, and from Wales and Texas, as well.

But the star is clearly Karajan, with his obvious affinity for Wagner's music and intensive drama. This new Meistersinger and his Bayreuth are now the only complete performances available. Both are milestones in the history of Wagner and of opera. Both are Karajan triumphs.

BACH, J.S.: Partita, in A Minor, for Unaccompanied Flute (BWV 1013); Sonatas in B Minor, E-Flat Major, A Major, and G Minor for Flute and Obbligato Harpsichord (BWV 1030/1/2; 1020); Sonatas in C Major, E Minor, and E Major for Flute and Continuo (BWV 1033/4/5). Samuel Baron (flute); Louis Bagger (harpsichord); Barbara Mueser (gamba, in BWV 1033/4/5). MUSI-

CAL HERITAGE SOCIETY OR 303/4 two discs $5.98 (plus 60c handling charge from the Musi-


Performance: Objective and accurate Recording: Excellent

This set includes all of the Bach solo flute sonatas: two for flute and continuo, two for flute with obbligato harpsichord, and a four-movement partita for unaccompanied flute. This collection also contains several pieces now known not to have been written by Bach at all—BWV 1020, 1031, and 1033; these may be by a Bach pupil or one of his sons, but because they are fine works and because they have been associated with the authentic sonatas for so long, they are invariably included among the complete recordings.

The mainstay of this set is Samuel Baron, currently the solo flutist of the Bach Aria Group. He is a fine player, with a good knowledge of Baroque stylistic procedures. His interpretation, and that of his colleagues here as well, is quite objective: all the notes are here, quite accurately played but also quite literal in rhythmic execution. With a few exceptions (such as the Partita, where Baron's rhythms and tempo suddenly become quite wayward), the playing is very straightforward, with little "affect" (not even in the more galant E-flat Sonata), expression, or sentiment. It should be added that Baron has reconstructed the missing measures of the opening movement of the A Major Sonata, something usually not done in recordings (it is generally omitted altogether). This is a good job. And overall, too, the playing is certainly on a high level. But for much more tonal and dynamic variety, for more subtlety in the accompaniment, and, above all, for a wealth of expressiveness, I recommend either the brilliant Maxence Larrieu/Rafael Puyana recording on Mercury SR 2-9123 (also with the reconstructed A Major Sonata) or the warm Elaine Shaffer/George Malcolm version on Angel S 36337 and 36350. The sonic reproduction here is well-nigh faultless. I.K.


Performance: Gouldian Recording: Very good

This recording is so fine in so many ways that it could certainly be said to have "special merit." However, it is necessary to point out that it has its rather special demerits as well. Most of these are the result of Gould's insistence on correcting the music he plays. Beethoven's accents, articulations, and phrasings are clear, characteristic, and essential enough; Gould's second guesses are rarely improvements, and in one or two cases—the "Eroica" bass theme from half full notes into eight-note pseudo-pizzicatos—the results are positively objectionable.

But it would be vastly misleading to imply that these performances are a collection of incomprehensible eccentricities. Quite the contrary, all three of these works are shaped and projected with the most profound insight and a brilliant sense of their musical dynamic. Variations, the most undramatic and structurally inconsequential of forms, demand the greatest sensitivity to harmonic motion as well as rhythm and dynamics in the large and in the small. Even taking the errors of judgment into account, these performances really make it on most essentials. Good sound. E.S

BENTZON: Chamber Concerto for Eleven Instruments, Op. 52; Symphonic Variations, Op. 92. Niels Viggo Bentzon, Anker Blyme, Herman D. Koppel (pianos); Chamber Ensemble and Royal Danish Orchestra, Jerzy Sem-

kow cond. TURNABOUT TV S 34374 $2.98.

Performance: A-1 Recording: Good

Release of this disc of works by the protean Danish composer-pianist Niels Viggo Bentzon completes the availability in this country of a nine-disc series amounting to a miniature history of mid-century Danish theater and orchestral music over the past hundred and fifty years. The other discs of the series include the Carl Nielsen Violin Concerto, Helios Overture, Fourth Symphony, and Sinfonietta (Turnabout 34043, 34050, 34085); Niels Gade's First Symphony, Echoes of Ossian Overture, and El-

verskud cantata (Turnabout 34032, 34085, 34381); Kuhlau's Elverhoj and Lange-Müller's Der var en gang together with a delightful collection of nineteenth-century theater pieces (Turnabout 34230, 34308), and two discs representing Danish music between the 1930's and the middle 1950's—works of Vagn Holm- boe, Niels Viggo Bentzon, Knudgaard Risager, and Per Norgaard (Turnabout 34085, 34168).

The American release seems haphazard if one considers the Danish Fona label—behind all their releases there is a wealth of Danish music over the past hundred and fifty years. The other discs of the series include the Carl Nielsen Violin Concerto, Helios Overture, Fourth Symphony, and Sinfonietta (Turnabout 34043, 34050, 34085), Niels Gade's First Symphony, Echoes of Ossian Overture, and El-

verskud cantata (Turnabout 34032, 34085, 34381); Kuhlau's Elverhoj and Lange-Müller's Der var en gang together with a delightful collection of nineteenth-century theater pieces (Turnabout 34230, 34308), and two discs representing Danish music between the 1930's and the middle 1950's—works of Vagn Holmboe, Niels Viggo Bentzon, Knudgaard Risager, and Per Norgaard (Turnabout 34085, 34168).

The American release seems haphazard if one is unaware of the underlying unifying ele-

ment—the Danish Fona label—behind all these Turnabout discs containing Danish music—some of it superb (Nielsen), almost all of it thoroughly interesting and entertaining.

Niels Viggo Bentzon at this writing is well past Op. 250 in the vast output that has come from his pen since 1941. A dozen or more pieces of genuine distinction can be singled out, almost none of which have ever been available in this country: the Fourth Symphony (1949), the piano sonatas, and the Variations for Solo Flute are among those that come to mind. The music on the present Turnabout disc is highly representative of Bentzon's work in the middle Forties and early Fifties. The Hindemith influence is strong in the end movements of the Chamber Concerto, but in the magical slow movement the composer conjures up wonderful color with his wind-percus-

sion ensemble augmented by three solo pianos. The Symphonic Variations represent a highly fluent and effective development of the "meta-

(Continued on page 90)
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The hope of his symphonic colleague Vagn Holmboe.

BOCHNERI: Stabat Mater (G. 332/2). Carmen Vilaar (soprano); Rivi Avivien (mezzo-soprano); Giorgio Marelli (tenor); Orchestra da Camera Genovese, Ivan Polidori cond. MUSICAL HERITAGE SOCIETY MHS 1097 $2.99 (plus 65¢ handling charge from the Musical Heritage Society, Inc., 1991 Broadway, New York, N.Y. 10023).

Performance: Adequate

Recording: All right

Judging from the catalogs, this may very well be the only available example of Boccherini's vocal music on records. He did write some sections of the bass, villancicos, a zarzuela, some dramatic music, arias, and the like—although the quantity is small in comparison with this composer's instrumental output. The present Stabat Mater exists in two versions, a 1781 edition for solo soprano and strings and a rewriting of that work for three voices and strings in 1800, to which Boccherini added an orchestral introduction adapted from the opening to the Symphony in F Major, Op. 35, No. 4 (1782). The work is cast in the typical galant idiom, rather less agonizing, say, than Pergolesi's setting of the text, but no less tuneful for that. A good bit of the score, in fact, sounds operatic, but there are moments, such as the last two trios, when the music is most affecting—yet the recording is of great interest because of its importance in Boccherini's output and is certainly worth hearing. The sound quality is intimate. No texts.

I.M.

RECORDING OF SPECIAL MERIT

BRITTEN: Serenade, Op. 31, for Tenor, Horn, and Strings; Les Illuminations, Op. 18, for Soprano and String Orchestra. Robert Tear (tenor); Alan Civil (horn); Heath Harper (soprano); Northern Sinfonia. Neville Marriner cond. Angel S 36788 $5.98.

Performance: Les Illuminations mar- velous.

Recording: Superb

This is one of those occasions when the conscientious recording critic just has to infuriate the prospective record buyer. The latter, faced with a choice between this release and the Pears-Britten performances of the same two pieces recently brought together on one London disc, naturally wants a straight reproduction, but no such simple decision is possible. What can be said is that, if Les Illuminations is your main concern, or if you already possess Pears' Serenade in its previous (less appropri- ate) coupling with the Young Person's Guide to the Orchestra, then this Angel disc would be a sensible choice. For Heath Harper is in glorious voice. Her French has a strikingly idiomatic ring to it, her musicianship is marvelously subtle and observant, and she makes a strong effect on several low notes where Pears adopts the alternative higher octave. Neville Marriner leads a splendidly alert accompaniment, and Angel's recording is even more atmospheric and detailed than London's.

But any choice between Miss Harper's perform- ance and Pears' is a narrow one. And in the Serenade—the better work of the two, and probably still Britten's finest achievement—neither Pears nor Barry Tuckwell, the horn-player on the London record, is really challenged by Angel's team of Robert Tear and Alan Civil. Tear's is a good, sensitive performance. But his line is subject to ungainly swellings of tone (as at the word 'cedars' in the first song), and he is less meticulous than Pears about note values (the bloodcurdling triplet at "to the bare bane" in the Dirge is thrown away, and 'Thou that makst' in the Ben Jonson Hymn loses its dotted rhythm). More im- portant, he lacks Pears' capacity to evoke the music's feeling in all its intensity, particularly in the baleful menace of the Blake Elegy and, again, the Dirge. In the latter case, the tempo he and Marriner have adopted is partly responsible: it is closer to quarter-note—72 than to the indicated 60, which Pears and Britten observe scrupulously, and which suits the emotional temperature of the movement much bet- ter. And though Civil is a fine horn-player, he ends the Elegy with a bump instead of drawing out the diminuendo as Tuckwell does.

My own preference, then, would go—if only marginally—to Angel as far as Les Illumina- tions is concerned. (Britten, by the way, speci- fied either soprano or tenor for this work, and both voices have advantages, so that is not an issue.) But if you want both works at their very best, you will have to have both records. B.J.
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**NOW—THE ADC 10E MK IV**

seigneur en l’an 1686; Xerxes: Ballet Music.
La Grande Écurie de la Chambre du Roy (Jean-Claude Malgoire, musette, oboe, baritone oboe; Robert G. Casier, musette, oboe d’amore, English horn; Jacques Chambon, oboe, baritone oboe; Pierre Casier, English horn; André Sennedat, bassoon; Danièle Salzer, harpsichord continuo; Maurice André, Louis Menardi, and William Charlet, trumpets; Jacques Rémy, timpani). TURNABOUT TV S 34376 $2.98.

**Performance**: Vivacious

Recording: Very good

The program notes for this collection spend some time in describing the grand écurie of the seventeenth- and eighteenth-century French kings. This was the name of the great stable, as well as the band that was assigned to it to perform outdoor ceremonial music after hunts, parades, and other festivities. The ensemble was made up of winds (including brasses) and percussion, and the best example of the kind of repertoire they played is the Carrousel music of Lully, written for a 1686 equestrian display. There was also the group of musicians that played indoor occasional music for the delegation of the court, members of the Chambre ordinaire du Roy.

The present players, many of whom may be familiar from their free-lance activities on French-made recordings, have banded together under a composite name of Grande Écurie de la Chambre du Roy, and their all-wind performances are generally lively and mostly in keeping with the correct style—an exception being the lack of double-dotting in the Lully Overture. The ensemble is reasonably precise with their modern instruments (they sound modern to my ears). But I wonder why the majority of the pieces, which are stage works that should properly have involved strings, do not. This is not to say that selections could not have been played for the royal amusement outside the theater, and I would imagine that Louis-ius might have enjoyed the group’s wind version of Campra’s Ballet des Ages (the longest selection here) thoroughly. Nevertheless, what seems to be the album’s main purpose is not so well served here as it might have been. It’s a better selection of the typical Great Stable sound is a fertile, and amusingly raucous, collection directed by Jean-François Paillard on Musical Heritage Society MHS 1080. Then, too, I think that the Lully Carrousel music is more effectively played and recorded on an import album called “Festival Music in Royal Gardens,” featuring original instruments or reproductions played by the Edward H. Tarr Wind Ensemble among others (Odeon C 061-28361/LX). In any case, Turnabout’s sound is quite satisfactory, if a bit too closed-in for outdoor entertainment.

I.K.

**PAUL CHIHARA**: Tree Music (Logs; Willow Willow; Branches; Driftwood; Logs XV); Bertram Turetzky (bass), Harvey Sollberger (bass flute), Herbert Price (tuba), Kenneth Watson, Raymond Des Roches and Richard Font (percussion), Arthur Weiberg and Donald MacCourt (bassoons), the Philadelphia Quartet. COMPOSERS RECORDINGS, INC. CRL SD 269 $5.95.

**Performance**: Excellent

Recording: Good to very good

Paul Chihara is a young Japanese-American composer from the West Coast whose music has a finely controlled, meditative—yes, Oriental sound. Mr. Chihara admits to having “a thing about trees,” but his tonal pictures have the quality of Eastern brushstroke stylization . . . nothing too organic, and not very rooted in solid earth, but suggestive and beautiful nonetheless. The most extraordinary piece is called Logs, written for and performed by the ever-outstanding Bertram Turetzky. A second version of this, electronically transformed and mixed with material from the other Tree pieces, returns at the end to round off the series and unify the record. All in all, this music makes a very agreeable impression of spaciousness and timelessness without resort to any of the clichés and mini-clichés usually employed to suggest such states. E.S.

**RECORDING OF SPECIAL MERIT**

**CHOPIN: Fourteen Waltzes.** Antonio Barbosa (piano). CONNOISSEUR SOCIETY CS 2036 $5.98.

**Performance**: Dazzling

Recording: Superb


**Performance**: Thoughtful but dull

Recording: Excellent

These two young pianists—Barbosa is twenty-eight, Freire twenty-seven—are both Brazilian, are friends, and share a welcome ability to produce beautiful tone that sets them apart from the all too numerous ranks of keyboard percussionists in the younger generation. Beyond these things I don’t think the resemblance goes, for Barbosa, whose recording of the second and third Chopin sonatas (Connoisseur Society CS 2026) I reviewed enthusiastically in these columns last June, seems to me by far the more interesting and indeed exciting artist. Responses to the Chopin waltzes are as much a matter of ethos as of aesthetic. I am personally somewhat repelled by this string of salon elegancies dedicated to Madame the Baroness this and that. But if you feel, as many do, that Chopin was a towering genius uncorrupted by the tawdriness of salon life in his day, then Lipatti on Odyssey (32 16 0058) is your man, for his purity of spirit elevated these charming trifles to a sphere beyond, I think. But I must say that, on the other hand, you share my feeling that Chopin, genius or no, allowed the tinsel to get into his music, you cannot do better than to invest the other hand, you share my feeling that Chopin. I do not want to leave that sounding like purely negative praise. Whichever your view of the music, glamour and dazzle are unquestionably vital elements in it, and Barbosa has the imagination, the technical resources, and the sheer artistry to evoke those qualities in abundance. His rubato is idiosyncratic, and often renders to the first beat what, in Waltz time, is really due to the second. But it is unfailingly musical, and you always know where you are in the measure, in sharp contrast to the egregious “classic” performance by Cortot, who often seems uncertain whether the music is in three-four or four-four time. Barbosa is given one of the finest piano recordings I have ever heard. Just now and then it tends to overload in fortissimo, but in every other respect it is outstandingly spacious, clear, and colorful. For a sample of both performance and recording at their magnificient best, listen to the coruscating high notes in the main section of the G-flat Major Waltz, and to the luxuriously extended triplet staccato notes in the second bar of the introduction (Continued on page 94)
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rious languor of the middle strain, which might almost be a distant, worldlier descendant of the waltz in the scherzo of Schubert's great D Major Sonata.

Freire's approach to the twenty-four preludes is distinguished at times by an agreeable taste for understatement, and constantly by a vigilantly honest feeling for the actual sound the piano is producing. But the understatement does not quite work in these pregnant little pieces; they depend for their effect on telling, even if subtle, touches of rhetoric—and Freire's willingness to aim for a true pianissimo where the music demands it is sabotaged by his apparent inability to preserve a taut line and a singing tone while he is unpremeditatedly controlling his quiet playing. For perfection of detail and depth of character, there is no recording to match Moravec's wonderful Connoisseur Society version (CS 1366).

**RECORDING OF SPECIAL MERIT**


**Performance:** Excellent

**Recording:** Excellent

Unlike List and Wagner, both of whom he esteemed and befriended, Peter Cornelius (1824-1874) was not destined to set the world on fire. Nor is anyone likely to fly into a passion over this disc, given the artless simplicity of its contents, but it is an outstanding example of worthy material exquisitely handled. The Wataremusen then had some circulation as the early LP days in a fine rendition by Irmgard Seefried and Erik Werba (Decca DL 7545), the Vaterunser appears to be new to discs. It is a cycle of nine songs, based on many of the traditional Lord's Prayer. Both cycles are unpretentious, yet consummately wrought. Prey's singing is a model of sincerity, dignity, and faultless vocalism. The accompaniments are fine, and the engineering seems ideal. *G.J.*

**DEL TREDICI: Fantasy Pieces (see MESSIAEN)**

**DRUCKMAN: Animus III; synapse Valentiae. Arthur Bloom (clarinet); Alvin Brehm (contrabass); electronic tape realized at the Columbia-Princeton Electronic Music Center. NONESUCH H 71253 $2.98.**

**Performance:** Composer's realization

**Recording:** Excellent quality

These clever, attractive, and somewhat facile works are the latest in Nonesuch's series of commissions and have the distinction of having already been adapted by the choreographer Gerald Arpino for his ballets Solarwind and Valentaine. Animus III is a piece for clarinet and tape—the tape being derived from the sounds of Arthur Bloom's virtuosic clarinet, and his voice as well. The "live" clarinet, besides blowing straight, also plays into a "feedback" (presumably a tape-echo) device. In fact, in the recorded form, the intended contrast between the tape and the "actual presence of the performer theatrically" means little and the most obviously "theatrical" elements are the recorded and echoed vocal whisps. Side two consists of a totally synthesized section (synapse) and a shorter, brilliant solo for string bass and bass player's voice (Valentaine), mag-
And made twenty-six new ones.

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Deutsche Grammophon is delighted to announce six new releases with Kubelik on the podium. A total of 26 records in all, it is quite a feat for this ever-performing musician, whose schedule resembles something like a whirlwind.
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The new Heathkit AR-1500 Stereo Receiver succeeds our AR-15. But the AR-1500 is no facelift. It embodies substantial improvements in every major area of the circuitry — resulting in more pure power, greater FM and AM selectivity and sensitivity, and a much easier kit to build. And in 1967 when we introduced what was rightfully called “the world’s most advanced receiver”, the technology somewhat overshadowed the fact that the AR-15 was probably the best value in audio. The new AR-1500, at 379.95, is an even better buy!

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**ARA-1500-1**, walnut cabinet, 6 lbs., mailable 24.95

**AR-1500 SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Tuner - FM Section (Monophonic)</th>
<th>Tuning Range: 88 to 108 MHz.</th>
<th>Intermediate Frequency (IF): 10.7 MHz.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Response: ±1 dB, 20 to 15,000 Hz.</td>
<td>Antenna: Balanced input for external 300 ohm antenna.</td>
<td>Sensitivity: 1.8 µV.</td>
</tr>
<tr>
<td>Selectivity: 90 dB.*</td>
<td>AM Image Rejection: 100 dB.*</td>
<td>IF Rejection: 100 dB.*</td>
</tr>
<tr>
<td>Frequency Response: 100 dB.*</td>
<td>Harmonic Distortion: 0.5%, or less.*</td>
<td>Intermodulation Distortion: 0.1%, or less.*</td>
</tr>
<tr>
<td>AM Suppression: 50 dB.*</td>
<td>AM Suppression: 55 dB.*</td>
<td>AM Suppression: 55 dB.*</td>
</tr>
<tr>
<td>19 kHz and 38 kHz Suppression: 55 dB.*</td>
<td>SCA Suppression: 55 dB.*</td>
<td></td>
</tr>
<tr>
<td>AM Section: Tuning Range: 535 to 1620 kHz.</td>
<td>Intermediate Frequency (IF): 455 kHz.</td>
<td>Sensitivity: 50 µV with external input; 300 µV per meter with radiated input.</td>
</tr>
<tr>
<td>Selectivity: 20 dB at 10 kHz; 50 dB at 20 kHz.</td>
<td>AM Suppression: 55 dB.*</td>
<td>Modulation: 19 kHz and 36 kHz.</td>
</tr>
<tr>
<td>AM Antenna: Built-in rod type; connections for external antenna and ground on rear chassis apron.</td>
<td>AM Rejection: 70 dB at 10 kHz.</td>
<td>Harmonic Distortion: Less than 2%.</td>
</tr>
<tr>
<td>20 dB at 50 kHz. 50 dB at 1400 kHz.</td>
<td>IF Rejection: 70 dB at 10 kHz.</td>
<td>Suppression: 55 dB.*</td>
</tr>
</tbody>
</table>

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*For full specifications and pricing, please refer to the original text.

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Franz Cooper (piano). GENESIS (225 Santa Monica Blvd., Santa Monica, Cal. 90401) GS 1006 $5.98.

**HINDEMITH: Chamber Music, Volume VI.**
Sonata No. 2, for Viola and Piano (1939); Sonata for Unaccompanied Viola, Op. 11, No. 5 (1919). Ernst Wallfisch (viola); Lory Wallfisch (piano). MUSICAL HERITAGE SOCIETY OR-11 294.

**HINDEMITH: Chamber Music, Volume (Continued on page 104)**
Which of these two new Wollensak stereo cassette decks is worthy of your sound system?
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The one on the left is the Wollensak 4760 cassette deck featuring the new Dolby System® of noise suppression. It reduces the level of background tape hiss by 10 db at 4,000 Hz or above, while greatly increasing dynamic range. To enhance fidelity, bias for both standard and high performance tapes can be selected by a tape selection switch. Frequency response of the Model 4760 is 35-15,000 Hz plus or minus 2 db. This deck is the ultimate in cassette decks; the finest you will ever buy. It is equal to the best and most expensive open reel recorders.

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ON THE SUBJECT OF BAD BALLET MUSIC

BALLET MUSIC on records is different from ballet music in the theater. One grows used to this hard fact, but one never accepts it entirely—not if after all these years one is still capable of getting high on Tchaikovsky. If you don’t believe me, go to the record shops and get the grues. All these years, and not one great recording of The Sleeping Beauty, not one that combines sonic brilliance and musical accuracy. Yes, yes, George Weldon’s on Angel is good, but can one really call it great? and after all, Beauty is the greatest ballet score ever composed. And yes, there are suites aplenty, suites we can buy and delight in and even cherish. But suites are to a ballet what glue-sniffing is to a heroin addict. For him (or her), a ballet score is not all high points. The mysterious linkages, modulations, and abrupt cancellations that make ballet music live in the theater (and in his mind afterward) are the things he wants to recapture by means of a recording—get the thing complete, for pity’s sake, or don’t get it at all. And even the “complete” versions are not what they seem. My favorite complete Swan Lake (it happens to be Yuri Fayer’s with the Bolshoi Theater Orchestra, monophonic and now deleted) may not resemble yours. The variations between two versions advertised as “complete” can be bewildering.

As for those suites, here the grues really set in. Why, in this age of rising ballet attendance, are we still being given excerpts that don’t even come in the order in which they are played in the theater? And if we must have these discontinuous chopped-up representations of ballet scores, why can’t we at least have them played at sensible dance tempos, so that listening to the music bears some relation to watching a performance? Dancing, after all, is the one art that leaves no trace; once it has happened we have only still photographs and music—besides memory—to help us call it back.

Listening to a new album of ballet music, “Evenings at the Ballet” conducted by Robert Irving, aroused anew my suspicion that record companies regard ballet music as something different from “real” music. This album gives us five ballets, more or less, but only two—Les Sylphides and Carnival—are given complete. Sylvia, Coppélia, and Giselle are in suite form, and my paranoia was instantaneously fed by the fact that the three scores that were cut were the ones written especially for the ballet. Les Sylphides and Carnival are both adaptations of exceedingly well-known piano pieces. Did this disrepute the decision to record them entire as against scraps from the ballet-ballet classics—or was it rather the fact that Les Sylphides and Carnival are short, are in fact “suites” to start with? Why, if I calmed down, I had to admit the latter was probably the answer. The record companies like short ballets, and this plays hob with the nineteenth century.

So, sighing, I put the stylon down on a second new album of ballet music. “Ballet at the Bolshoi,” like “Evenings at the Ballet,” is a joy-ride for lovers of suites, swatches, divertissements, medleys, and smorgasbords, but the first band on the album plunges you into the most disconcertingly long version of the great Act One waltz from Swan Lake that you can hear outside the full-length recording of Swan Lake—made, as it happens, by the same mestro and the same orchestra, Gennady Rozhdestvensky and the Moscow Radio Symphony, on Melodiya/Angel S 4106, or on S 40137, the spin-off of excerpts from 4106. It is, in fact, the Rozhdestvensky performance third time around, and though the practice of repackaging excerpts from a master recording is perhaps not startling, it certainly militates against brevity here. This waltz, like the “Danse des cygnes” that follows shortly, is stretched to maximum length by the inclusion of every possible repeat. On a full-length recording of a four-act ballet, this makes some sense. But to put the same nonsensically protracted business into a suite can only bemuse those who want to dip into Swan Lake and not drown in it.

Apart from Swan Lake, Prokofiev’s Cinderella is the only ballet in the Soviet set I have seen staged (though not by the Bolshoi); perhaps that’s why the rest of the selections failed to excite me. But then, I think it’s possible to be excited by the music for Cinderella without having seen a production of it. Perhaps The Seasons and The Red Poppy were once better to look at than they are to listen to (I am ready to believe that they were)—if they were, it must surely have been when Pavlova and Mordkin were chasing around the stage to Glazunov’s Autumn Bacchanale and when Ulanova was dancing in silk pajamas as Tao-Hoa, Gliere’s elegant Chinese heroine. These must be lovely memories for those that have them; the rest of us have just had bad ballet music. And on the subject of bad music, though I have yet to see the ballet that has been contrived for Maya Plisetskaya by her husband Rodion Shchedrin on themes from Carmen and other Bizet works, I have yet to hear a trashier score anywhere; the sound of it is enough to send even the most perverse enthusiast of “classical pop” scurrying back to Jascha Heifetz.

The greatest disappointment, though, are the Shostakovich selections grouped under the title The Limpid Brook. Like The Red Poppy, this ballet (also known as Bright Stream) was an important work in the annals of socialist realism—important because, though a great popular success, it failed to please the party militants, and in the ensuing furor, what might have proved a significant step forward in Soviet theatrical art, turned into a massive obstacle to the careers of Shostakovich and his choreographer Fyodor Lopukhov, an artist whose visionary experiments in the Twenties and Thirties are only now beginning to be understood in the West. But it is impossible to get any hint of subversive innovation out of this innocuous sounding music. The Limpid Brook/Bright Stream in 1936 was a zany comedy about city slickers on a collective farm, but the music today is “zany” in the sadly dated, frantic style of Kabalevsky’s The Comedians, Kharcovian’s Gayne, and Shostakovich’s own Age of Gold.

It remains only to pay tribute to Robert Irving in one of his infrequent recorded appearances. “Evenings at the Ballet” is such a popular catchall that it will probably be passed over by the serious ballet fan, but serious ballet fans already know who Irving is, and the general public at whom the set is aimed will soon, I hope, find out. He is, especially since his retirement, the best ballet conductor in the business. His plastic shaping of Les Sylphides conveys Fokine’s open, rhythmic phrasing as does no other performance I have heard, the tension and exuberance of Carnival are wonderful things together, and the Delibes suites (recorded here with violin solos by Yevhudi Menuhin) make you want more. Irving races through this odd pocket-size Giselle—but ‘twere well, I suppose, ‘twere done quickly. Now let him record the ballet music we really need to have on records, the old classics (like Drigo’s Harlequinade) that never seem to get into the catalogs and the modern ones (like Bellini-Rieti La Sonnambula) that he performs so brilliantly with his own company, the New York City Ballet. Well, I have my list and I’m sure you have yours.

EVENINGS AT THE BALLET. Les Sylphides (Chopin), Carnival (Schumann); suites from Sylvia and Coppélia (Delibes), and Giselle (Adam). Philharmonia Orchestra, Robert Irving cond. SERRAHM SRC 6069 three discs $8.94.

BALLET AT THE BOLSHOI. Excerpts from Swan Lake (Tchaikovsky), The Seasons (Glazunov), The Red Poppy (Gliere), The Limpid Brook (Shostakovich), Cinderella (Prokofiev), and The Carmen Ballet (Bizet-Schedrin). Bolshoi Theater and Moscow Radio Symphony Orchestras; Gennady Rozhdestvensky, Boris Khaikin, Gennady Rozhdestvensky, Boris Khaikin, Yuri Fayer, and Maksim Shostakovich cond. MELODIYA/ANGEL SRC 4114 three discs $17.94.
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CIRCLE NO. 30 ON READER SERVICE CARD

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Performance: Most excellent
Recording: Excellent

The Musical Heritage Society's series of the complete chamber works of Paul Hindemith has reached the formidable point of Volume IX, and one is almost tempted to cry out "Es ist genug!" But there's much more to come. Out of sixty-one compositions which logically might be considered for recording, only twenty-four have so far been committed to vinyl. That leaves thirty-seven more that we may expect.

When I was a composition student in the late 1940's, Hindemith was still teaching at Yale, and his stylistic influence in this country had become immense. Most of us were affected by it to some extent. The Hindemith style was then the sure-fire contest-winning formula for young composers, just as the so-called "post-Webern" style came to be in the 1960's and the aleatory was trying desperately to become as the 1970's opened. All these "movements" or "influences" tend to wear out after a period of time; of course, and then everybody is left wondering just what he thought was so spectacular about the fashionable style of yesteryear. But they do have impact.

Hindemith was an enormously important and gifted composer, as even most of his detractors will still agree, but it is sad to realize how poorly many of his works have stood the test of a little time. Some of them will probably "recover" after more time has passed. Others will fare even worse. Certainly, this compendium release of his chamber music puts a maximum strain on it (just as a large, retrospective museum show of a painter's work does — it can destroy a living painter's career unjustly), and one has to fight against impatience as quartet after trio after sonata all flow forth in the same contrapuntal style, displaying a bag of tricks so small and unspectacular that one wonders (in 1971) how Hindemith was ever satisfied to work on and on with techniques that now seem so limited.

One may wonder, but not quite fairly. Because, when inspiration wet his pen, the music was thoroughly original and winning. Sometimes an individual movement within an otherwise almost "routine" chamber work suddenly and unexpectedly begins to give off sparks.

(Continued on page 106)
Sony tape shatters glass for less money.

Of course, Sony recording tape can perform the old shatter-the-glass trick. But it's only a trick. What you want from tape is true performance. And that's precisely what Sony tape gives you — for less money. Much less than other glass-shattering brands.

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You never heard it so good.
Then again, a whole composition will turn up which is communicative and enlivening. You remember, then, why Hindemith's music once swept the land.

The performances for this series have been, with very few exceptions, first-rate. It's also true, though, that in this country became fond of Hindemith's music through really stellar performances by people like Piston, Sanromán, et al., that the solid excellent playing in the Musical Heritage Society's performers does not even seem to aim toward that sort of expression. We hear here what seems to be a first level of German performance-practice applied to the music of a German composer who we, in the United States, once adopted almost as an American patrician. A strange set of international dislocations! But they do have to be kept in mind. As for other dislocations: don't listen for Messrs. Mathias Goldner and Robert Lang, who are listed on OR H-296 as "speakers" in the Sonata for Alto Saxophone and Piano, in the "Posthorn." They made the liner notes, but they never made the record. L.T.

HUN TEN: Piano Works (see HERZ)


Performance: Fairly good

Recording: Good

This recording of music by Karel Husa, whose String Quartet No. 3 won the Pulitzer Prize in 1969, is for me a very difficult one to evaluate, and I'll warn in advance that much of what I'm going to say will be subjective.

To begin with, the Prague Symphony Orchestra does not seem to be a top-flight ensemble. One is constantly wondering whether to blame the music for its unconvincing qualities, or the performers, or the conductor. Perhaps all are responsible. But in the Symphony No. 1, despite the fact that Husa's traditionalist technology exhibited by the composer, the firmly and often forcefully stated ideas seem always to be just this side of the point. The gestures are there but, for all their obvious sincerity, they don't quite convince.

My response to the Serenade and the Nocturne is similar. The composer seems to have put his own notes on paper with complete confidence. But they follow patterns so familiar from other music that one can't really get interested. Listening becomes a matter of source-sleuthing. I suspect that Husa's talent is what we used to call in the Fifties an "academic" one. I have not heard his Pulitizer-winning quarter, but I certainly hope it's more arresting than these three pieces. L.T.

K inspiration of Possession. The Origin of Prophecy; Luminencescences; Refractions for Clarinet and Tape. Morris Knight (speaker). Golden Crest 4092 $5.98.

Performance: Mostly electronic Recording: Tape compositions

Morriss Knight's name and work were not previously known to me, but he seems to be as nearly as one can tell from the wordy yet unins- formative liner notes—a musician whose background has been mainly in radio. I know of no other case of an American composer whose work has developed in and through broadcasting (except, to a limited degree, myself). This music, for all its obvious shortcomings, is as well-made and effective as a good deal of what we are offered in the name of the more fashionable avant-garde. One wonders why it is so obscure. The explanation undoubtedly lies in the fact that Mr. Knight comes from, and with the exception of a sojourn in San Francisco—has remained in, Georgia! There is a certain "naïveté" that runs through this music—particularly noticeable in the setting of "The Origin of Prophecy," part of a poem by Chan Steig read by the composer himself in radio-anonymous's tones and surrounded by rather liter-al-minded (but far from ineffective) tape/ sound interpretations. Refractions is the earliest (1962), most eccentric, and least cohesive piece of the four; the rather conventional solo- clarinet part stands in curious contrast to the lively, odd tape music, and the whole piece falls apart somewhere near the end. The two purely tape pieces are the most successful; they are laid out in striking blocks and planes, with a considerable sensitivity to the medium. One assumes that the clarinetist is David Sweekind, to whom the work is dedicated—he is not specifi-cally credited anywhere.

E.S.

LULLY: L'Air pour le Caroussel de Monseigneur; Xerxes: Ballet Music (see CAMPRA)

RECORDING OF SPECIAL MERIT

MASCAGNI: Cavalleria Rusticana. Zinka Milanov (soprano), Santuzza; Jussi Björling (tenor), Turiddu; Robert Merrill (baritone), Alfo; Margaret Rotherglen (mezzo-soprano), Mamma Lucia; Carol Smith (mezzo-soprano), Lola. RCA Orchestra and Robert Shaw Chorale, Renato Cellini cond. ZINKA MILANOV: Arias. Bellini: Norma. Mira, o Norma (with Margaret Harshaw, mezzo-soprano). Verdi: Il Trovatore. D'amor sull'al rosee; Mis- saiera (with Jan Peerce, tenor); La Forza del Destino. Pace, pace, mio Dio. Zinka Milanov (soprano); RCA Orchestra, Frieder Weissmann cond. RCA VICTROLA VIC 6044 two discs $5.96.

Performance: Solid Mascagni, vintage Milanov

Recording: Good for its age

No recording has come along since 1953 to make this treatise of RCA's then much heralded Cavalleria Rusticana seem any less substantial today. Under Renato Cellini's forthright and thoroughly knowing direction the music moves at an exciting pace and never sags in intensity. By 1953, Milanov was a rather uneven performer, but the passionate and grand manner of her Santuzza make up for her occasional wavering. After a rather strained Siciliana, Björling rises to the challenges of his role with ringing tone and his accustomed seren- ity. Merrill is a vocally resplendent Alfo, the two mezzos are above average, and the clearly delineated and resonant work of the Robert Shaw Chorale is a distinct asset. The sound is acceptable.

The fourth side of the set shows Zinka Mila- nov at an earlier (1945-1946) phase of her care- reer. Tonal steadiness and rhythmic accuracy were never her strengths, but her singing is rewarding most of the time and ravishingly beautiful in "Pace, pace." The florid require-(Continued on page 108)
NO BEATS, TWEETS, BIRDIES, GABBLES, OR GROANS...

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CONCORD F-107
George Bennette’s good performance of Messiaen’s Eight Preludes for piano is unfortunate in running into the competition of an altogether more convincing version by Yvonne Liorid, who is what might be called Messiaen’s official interpreter and whose performance was supervised by the composer. Bennette’s imposing technical equipment gives him the advantage in the last of the eight pieces, Un Retlef dans le vent, where his rhythm is more lucid than Miss Liorid’s. But elsewhere in these thoroughly Debussyan pieces of 1928-1929, which are interesting less for themselves than for their foreshadowing the way the twenty-year-old composer was to develop, Miss Liorid’s more scrupulous attention to details of phrasing and dynamics makes hers clearly the preferable version. Desto’s recording is, by a narrow margin, the more colorful and has a wider dynamic range. Some disturbing vibrations, however, suggest that Bennette’s piano was not quite perfectly tuned.

Miss Liorid completes her record with another, much more characteristic Messiaen work, the Four Studies in Rhythm, composed in 1949-1950 and published separately (as Ille de feu 1, Mode de valeurs et d’intensités, Neumes rhythmiques, and Ille de feu 2), but intended for performance as a single unit. The dauntingly titled Mode de valeurs et d’intensités is prefaced, in the printed music, with an equally intimidating table that sets forth the plan on which pitches, durations, attacks, and intensities are organized. It turns out to be, in my judgment, by far the best piece on the record, with a steady pulse that is constantly and arresting being nudged off balance by irregularities that never quite destroy it. Neumes rhythmiques is a strong composition too, and Ille de feu numbers one and two are excitingly energetic pieces dedicated, not, as New Yorkers may imagine, to Fire Island but to the rather more exotic Papua, New Guinea. All four studies are splendidly played.

Bennette devotes his spare disc space to good performances of two American works: Portrait, by the pianist-composer Robert Helps (b. 1928), and the Piano Fantasy G. Del Tredici (b. 1937). Both are well-written pieces in fairly unindividual idioms, the former chromatic but essentially tonal, the latter firmly in the Schoenberg-Webern tradition.

The order of pieces on the Desto disc, by the way, is as listed above, and not as given on the jacket, which discusses the Del Tredici piece before the Helps. Desto’s liner-notes are carefully edited; the Musical Heritage disc, licensed from the French Erato company, comes festooned with Messiaen’s poly-chromatic prose in a turgid, unreadable translation. B.J. MOUSSORGSKY: Pictures at an Exhibition (arr. Ravel); A Night on Bald Mountain (arr. Rimsky-Korsakov). Philadelphia Orchestra, Eugene Ormandy cond. COLUMBIA M 30448 $5.98.

Performance: Lush
Recording: Expansive

Despite the new catalog number designation, the matrix numbers on this disc are identical with those of a coupling of the same two works on MS 7148, issued in 1969. Indeed, the Night on Bald Mountain was added as a filler to MS 7148 from an original Russian-music package (MS 6073), dating from 1953. Even so, the Night on Bald Mountain performance is more cleanly recorded and has more bite than that of the Pictures, which strikes me as
We quote: "Tone burst response, using the Stereo Review SR-12 test record, was perfect up to the highest frequencies..." That's Hirsch-Houck Labs talking about the Shure V-15 Type II Improved phono cartridge. Hirsch-Houck also said the V-15 was "...always unstrained, effortless, and a delight to listen to." We were enormously pleased, of course, but not surprised. After all, the cartridge that does sound better to the ear should also sound better to an electronic listening device. But now we feel we're ready for the ultimate test — on your turntable, playing your records. The incomparable V-15 Type II Improved, $67.50.

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on the over-lush side—this impression being reinforced by what sounds like an element of artificial reverberation. Having been brought up on the Koussevitzky-Boston Symphony (Ravel did the orchestration on commission from Koussevitzky) and Toscanini readings, my bias is frankly toward the lean and sharply delineated rhythmic treatment of the music. Hence, my reaction to the present Ormandy version is at best reserved. D.H.

RECORDING OF SPECIAL MERIT

MOZART: Sonata for Piano and Violin, in E-flat Major (K. 454); Sonata for Piano and Violin, in E-flat Major (K. 481). Ingrid Haebler (piano); Henryk Szeryng (violin). PHILIPS 6500 055 $5.98. 

Performance: Superb 
Recording: Splendid 

Pianist Ingrid Haebler and violinist Henryk Szeryng have been concentrating on Mozart for some time now in their recordings for Philips. For here are two of that composer's loveliest piano-violin sonatas, dating not from his childhood years, when the violin parts in his duo sonatas were quite subsidiary, but from the mature period in which he achieved a rich and thoroughly equal relationship between the two instruments. These are examples of Classical art at its very best, full of elegant expression, yet with every element held in discreetly perfect balance. 

Haebler and Szeryng are a perfect team. Their conception of the music seems to be identical, which means that every detail can be played with unstrained unanimity. So much of this music is, in essence, a matter of straightfor-ward, handsomely wrought counterpoints, which need to be delicately exposed and infused with expressive life, but without placing overt emphasis on the fact that these things are being done. Haebler and Szeryng are specialists in that kind of playing. They are so phrase-oriented that nary a single one passes without gentle sculpturing at their hands. Haebler has such a marvel of a left hand that extended passages in running eight or sixteenths become, cumulatively, tours de force. Regularity of this sort provides, of course, a perfect foil for the other instrument, and Szeryng matches every pianistic moment with his own seemingly effortless but thoroughly trolled contributions. In short, this is a record to treasure, no matter what other versions you may already possess.

L.T.


Performance: Okay 
Recording Good 

Vincent Persichetti's Eighth Symphony was clearly intended to be the featured work on this latest Louisville release, but since Wallingford Riegger's Study in Sonority is by far the more interesting piece—historically and intrinsically, in my view—I have taken the liberty of giving it the main listing. Riegger was born in 1885 in Albany, Georgia, and after a thoroughly Germanic training (he studied with Max Bruch!), he became part of that remark-ably creative life. They are so phrase- 

William S. Newman's monumental study The Sonata Style of Beethoven (University of North Carolina Press, 1969) lists in tabular form (pp. 204-206) fewer than twenty-three Schubert piano works in sonata format (his numbering is used here, together with the Otto Erich Deutsch catalog numbers). They encompass all but the earliest years of Schubert's all-too-brief creative life. But a dozen out of the twenty-three are incomplete: they lack whole move-ments (viz. the finales of D. 157 and 279), or completed movements (second movement of D. 439, first movement of D. 625), the two finest movements of D. 894 are unperformable fragments. The existence of so many uncompleted or abandoned works from Schubert's pen—most obviously, of course, the so-called "Unfinished" Symphony—may serve as fuel for romantic stories galore, but a close study of Schubert's way of handling such dis- 

performance of the Beethoven piano sonatas. The early works are neatly handled, but the later ones (which include those by such outstanding younger pianists as Vladimir Ashkenazy, Bruce Hungerford, Anton Kuerti, and Peter Serkin).

My own attitude toward Wilhelm Kempff is conditioned by the fact that his recorded perfor-mances of the Beethoven piano sonatas were the ones I was brought up on in the 1930s (on 75-cent Gold Seal Brinwicks—I couldn't afford the Schenkle Society issues, though I did hear them often in concert). I admire them and admire Kempff's clear and rock-steady readings of the more hectic and more overtly lyrical pieces. For better or worse, I find myself reacting in somewhat the same fashion to Kempff's traversal of the Schu-bert piano sonatas. The early works are neatly shaped and lovingly phrased under Kempff's fingers—and there are fascinating individual movements that either reflect what Schubert was listening to in Beethoven's Vienna, or which anticipate startling things to come in his own mature period in which he achieved a rich and thoroughly equal relationship between the two instruments. These are examples of Classical art at its very best: full of elegant expressiv-ity, yet with every element held in discreetly perfect balance.

Schubert's "Great C Major Symphony"—are masterpieces all, stand as proof that the form-cont-ent problem had been mastered.

The veteran German pianist Wilhelm Kempff, now well into his seventies, is only the second to tackle recording the eighteen perfor-mable pieces. He was preceded by the very able Viennese pianist Friedrich Wührer, whose performances from the middle 1950's are still available in three Vox Boxes (SVBX 5009/10/11, nine discs, $17.94). Though they are occasionally a bit breathy, the best of Wührer's hold up very well, and the piano sound is gen-erally quite acceptable—all of which makes them a viable alternative for someone unable or unwilling to shell out forty dollars for the Decca set, however superior the performances, the recorded sound, and, depending on one's per-sonal taste, the performances. I hope Deutsche Grammophon will ease matters by making the Kempff performances available as individual discs (thus far, D. 664, D. 840, D. 845, D. 894, and D. 960 are available on previously released single LP's). Then there is the question of Kempff's severe competition, in most of the better-known sonatas, from pianists of both the past and the present. Import specialty shops carry Artur Schnabel's incomparable readings from the late 1930's of the A Major (D. 959) and B-flat (D. 960) sonatas, as well as of D. 850 in D Major. Distinguished readings of the mature sonatas by present-day perform-ers include those by Rudolf Serkin, Clifford Curzon, Artur Schnabel, and the C Major Quintet, plus those by such outstanding younger artists as Vladimir Ashkenazy, Bruce Hungerford, Anton Kuerti, and Peter Serkin.

I should mention that Kempff has been quite successful as a conductor and that his recording of the Schubert "Great C Major Symphony" on two discs (which must surely be a reference to Schubert's pen-most obviously, of course, the so-called "Unfinished" Symphony—may serve as fuel for romantic stories galore, but a close study of Schubert's way of handling such dis-

(Continued on page 112)
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of the corresponding movement in the great D Major Sonata (D. 850) of a decade later. And the slow movement of D. 537, in A Minor, offers a singularly lovely Schubertian "walking tune." In the incomplete F Minor Sonata (D. 625) of 1818 we come face to face with the demonic Schubertian spirit for the first time on a sustained and consistent level of tension. Schubert's "Appassionata" is echoed in the opening movement, the opening strain of the scherzo is marked by startling dissonances, and the finale is the quintessence of Romantic Strom und Drang. All of these pieces Kempff brings off beautifully, reaching a peak in the first of truly mature sonatas, the terse and poignant A Minor (D. 784).

With the incomplete C Major Sonata (D. 840), with its enormously scaled first movement, we are stepping into really rugged Schubertian terrain. A comparison of Kempff's steadily flowing, rather no-nonsense treatment with Richter's vastly ruminative reading offers a fine study in interpretive polarity. The bigger A Minor Sonata (D. 845) comes off well under Kempff's fingers, but with the wonderful D Major (D. 850), a work for which I have a special affection, he comes a cropper, for my taste. The reading is small-scale and bland, lacking the urgency of Schnabel or the eloquence of young Aleksandr Naseckin on his recent Melodya/Angel disc—the finale ambles rather than trips along its delightfully wayward course. Something of the same blandness afflicts Kempff's readings of the almost entirely lyrical G Major "Fantasia" Sonata (D. 894). There is precious little grace or "lift" to the Menuetto here, which young Anton Kuerti, though handicapped by less impressive sonics and an inferior pressing, brings off in a truly entrancing reading on the Monitor label.

The most Beethovenian of the Schubert sonatas, the posthumous C Minor (D. 958), is respectfully played by Kempf, but I found the old Währer performance more convincingly rugged. The A Major posthumous (D. 959)—for me the peak of the Schubert sonatas—again suffers from smallness of scale at Kempff's hands. A hearing of the opening pages done by Schnabel or Hungerford will make the point clearly enough. As to the fantastic outburst between this reading and Kempff's 1951 version, we are stepping into really rugged Schubert for the first time. Not so much a warhorse as an wild instrument, it begins and ends with late, intensely demonic Schubert. In his last two-gets the Shostakovich of an era to come.

The last of the sonatas, in B-flat Major—profoundly reflective in its first two movements, wholly liberated in its last two—gets a low-profile but quite convincing interpretation from Kempff. There is surprisingly little difference between the reading and Kempff's 1951 version on London; outstanding in the new recording is the handling of dynamic and color expression. Schubert may probe more deeply into the opening movements, and I find Amy Fischer, whose reading for the Odeon label is quite similar to Kempff's, offers a bit more rhythmic zest; but let it be said that his B-flat is one of the better things in the set—and fortuitously it is available separately. The recorded sound is a model of clarity. Shostakovich's movement for a film score" the same year The Jazz Singer opened in New York (1928) and has been combining music to the Soviet cinema ever since. Thirty such scores are listed, including the music heard on this disc. For one who recalls the Soviet films of the Thirties and even the Forties, with their gravely sound tracks, hearing these scores in new performances on higher fidelity discs comes as something of a revelation. The Bolshoi Theater Orchestra and Chorus, under the composer's son Maksim, perform with force and virility, and the recorded sound is a model of clarity. Shostakovich's musical position in European cultural history is a part of that period we call Art nouveau—extravagant, what more distant microphoning and a warmer acoustic ambiance.

D.H.

RECORDING OF SPECIAL MERIT


Performance: Excellent

Recording: Excellent

SCRIABIN was and remains an elusive figure. The only important pianist-composer of the turn of the century—if one excepts the equally elusive Busoni—SCRIABIN is one of the key figures of early modernism. His musical position in European cultural history is a part of that period we call Art nouveau—extravagant, sensual, mystic, erotic, somewhat campy, rather shapeless and undramatic, but 'organic' and pulsating with dark, throbbing energy. An equivalent in literature would be Dostoevsky, in painting the Austrian Gustav Klimt or the Frenchman Odile Redon.

This is Ruth Laredo's third Scriabin album, and it begins and ends with late, intensely serious works: Désir, Caress Danseée, and the Eighth Sonata; in between are the conventional, if one excepts the equally bombastic, the movie music of Shostakovich is always real music. It can be labored, long-winded, and altogether excessive, but it is never mere noise or background filler.

P.K.

SLONIMSKY: Studies in Black and White; Suite for Cello and Piano; Variations on a Brazilian Tune; Grave stones of Hancock, New Hampshire; Impressions; My Little Brazilian Tune; Gravestones of Hancock, Op. 57, No. 2; Etude in C-sharp Minor, Op. 2, No. 1; Sonata No. 1, in F Minor, Op. 6; Nicolas Slonimsky (piano); Nancy Bramlage (soprano); Jerome Kessler (cello). ORION ORS 7145 $5.98.

Performance: By the composer

Recording: Dry

Nicolas Slonimsky is one of the most fascinating figures in American music. Born in nineteenth-century Russia, he came to the United States after the Revolution, became one of the leaders of the avant-garde movement of the Twenties and Thirties, and, more recently, a noted musical critic, musicologist, and lexicographer. He conducted a famous series of concerts of avant-garde American music in the United States, Cuba, Mexico, and Europe. His description of the end of his conducting career has the typical Slonimsky humor: "I met my Waterloo at the Hollywood Bowl when I forced a subcultural audience to listen to the 'baffling fantasies' of Varèse and the polyhymnal 'turbulence' of Pierre Boulez. It included the monumental Music Since 1900 (virtually a day-by-day account of modern music), a Lexicon of Musical Inevitable (proving that present-day "modern" music has been hashed out more than virtually every other "modern" music in its day), and a more-than-monumental Thesaurus of Scales and Melodic Patterns. As a
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It’s Sansui’s embodiment of the four-channel era. Model QR6500.
The music? Alas, it doesn’t hold up very well. As he himself would be the first to admit, his credentials as an avant-gardist are rather suspect. His system of ‘consonant counter-point in mutually exclusive diatonic and pentatonic systems’ is more impressive in the labeling than the actuality; what it means is that the right hand plays on the white notes and the left hand on the black. What it sounds like is somewhere between mild Bartók and mild Gershwin. There are a couple of Impressionistic songs and a schmaltzy Brazilian-Russian-Gypsy number. The best are the settings of tombstone inscriptions from Hancock, New Hampshire, each one in a style appropriate to the period of the person. Here, for once, Slonimsky’s musical-cological-lexicographical tendencies and his singular wit and humor come together in creative form. The performances, all of which involve the composer, are okay but not exceptional; the recording is rather dry and studio-ish.

E.S.

STEREO REVIEW

About five years ago, the complete opera appeared on Ultraphone 135/6/7/8 (four discs). The sound was somewhat dated, but the overall presentation by the Kirov (Leningrad) Opera under Boris Khakhin was above average. The present Boldt—produced highlights offer superior sound, but only Irina Arkhipova (mezzo-soprano), Joan of Arc; Yevgeny Vladimirov (bass), Thibaut; Andrii Sokolov (tenor), Raimond; Viktor Selivanov (bass), Bertrand; Sergei Yavkovensko (baritone), Lornel; others. Chorus and Orchestra of the Moscow Radio and Gennady Rozhdestvensky cond. MELODIYA/ANGEL SR 40156 $5.98. Performance: Arkhipova stands out

Recording: Good

Tchaikovsky wrote The Maid of Orleans (1879) between Eugene Onegin and Pique Dame, to cite only the best-known stage works. Using Schiller’s drama as his starting point, Tchaikovsky was his own librettist, a realistic and apologetic one with admitted limitations in this area. He need not have worried, however, for the shortcomings of the libretto (which are not discernible by the casual listener) are redeemed by the sweep and power of the music. Some of the opera’s pages contain patches of less than first-class inspiration, but the totality is impressive indeed. It reveals the band of a master, one who can conceive large-scale ideas without deflating them in execution. Because of its foreign subject matter, Tchaikovsky did not write a consciously nationalistic opera here—the style is closer to Meyerbeer than it is to Moussorgsky—but this quite obvious fact eluded the composer’s Russian critics, for the work’s initial reception was unfavorable. Anyway, the title role rises decisively above the level of the previous achievement. Here is, in fact, an extraordinary contribution not only in the justly familiar Farewell Scene but also in the beautiful episodes of the Vision (Act I, Scene 3) and in the long duet with Lionel, the Burgundian knight who, in Schiller’s version, causes Joan’s downfall. The Lionel in this performance is acceptably, a judgment that applies to all the other singers as well—with the exception of basso Selivanov, who is definitely not acceptable. The chorus is excellent, and Rozhdestvensky secures orchestral playing that is charged with melodicmatic excitement. Unquestionably, the opera deserves a better performance, but Arkhipova goes a long way toward making this a worthy buy.

G.J.

RECORDING OF SPECIAL MERIT

Tchaikovsky: Piano Concerto in B-flat Minor, Op. 23. Martha Argerich (piano); Royal Philharmonic Orchestra, Charles Dutoit cond. DEUTSCHE GRAMMOPHON 2530 112 $6.98. Performance: Excellent

Recording: Excellent

Martha Argerich is the gifted young Argentinian pianist who has recently been making waves in Europe. Charles Dutoit’s reputation is not so well known to me (I do know that he is Miss Argerich’s husband) but, judging by results, he is in the same class: i.e., first. This is a beautiful performance and recording, sensitive, but with a tremendous range, poetic sensibility, and style. Martin Bookspan take note! While we’re on the subject—one I don’t get to write on very often—I’d like to ask if anyone can explain to me why the famous opening theme of this concerto, stated and repeated with so much fuss and feathers, never comes back at all. Even Miss Argerich and M. Dutoit don’t seem to be able to help much with this problem.

E.S.

Tchaikovsky: Piano Concerto No. 2. in G Major, Op. 44. Igor Zhukov (piano); Moscow Radio Symphony Orchestra, Gennady Rozhdestvensky cond. MELODIYA/ANGEL SR 40097 $5.98. Performance: Extrovert

Recording: Loud and live

Igor Zhukov, one of Soviet Russia’s rising young stars in the pianistic firmament, adopts a plainly Horovitz-like approach to the Tchaikovsky G Major Concerto. He and conductor Rozhdestvensky go all-out for a “knock ’em in the aisles” performance, which is all very exciting for the first five minutes, but still fails to convince me that the G Major Concerto is top-drawer Tchaikovsky (nor is it the famous B-flat Minor, for my money, but it can take the slam-bang approach better). The recording is loud, brilliant, and rather reverberant, and it favors the soloist unequivocally. The concerto is played in uncut form, as it is by Nikita Magaloff and Colin Davis on the less brilliantly recorded Philips World Series disc. But I find Magaloff’s light and delicate-fingered treatment of the finale rather more to my taste than Zhukov’s rather heavyhanded one. And despite the use of the cuts made by Siotti in the slow movement, I still find Gary Graffman and Eugene Ormandy’s Columbia disc to be the most palatable version of the G Major Piano Concerto from the standpoint of both performance and recording.

D.H.

RECORDING OF SPECIAL MERIT

Vaughan Williams: Job, a Masque for Dancing. London Symphony Orchestra, Sir Adrian Boult cond. ANGEL S 36773 $5.98. Performance: Outstanding

Recording: High-class

Vaughan Williams’ Job, a ballet score which (Continued on page 116)
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Lowboy
he conceived as a "Masque for Dancing," is one of his richest and most fetching works for orchestra though it is rarely heard. Considering the fact that it has, in such large portion, those attributes of romanticism, orchestral color, and drama which seem to be prime requisites for the concert hall, it's hard to understand why conductors have so ignored this score. Even without the visual elements of ballet, the work fully holds its own as a tone poem. It is a little more spread out, perhaps, than a piece conceived solely in abstract terms would be, but the ideas are all handsome and pity, and Vaughan Williams treated them with particular conviction and elegance. And with great strength, too.

The source of inspiration for the composer was William Blake's "Illustrations to the Book of Job," adapted to eight scenes and an epilogue by the Blake scholar Sir Geoffrey Keynes, who approached the composer with an initial scenario. Vaughan Williams was immediately intrigued, and agreed to compose a work for the 1927 centenary of the death of Blake. He stipulated, however, that the ballet should be in the form of a "masque," with a style of dancing patterned after old English forms of the seventeenth century.

The work is class-A Vaughan Williams. Though it is quite typical of his dignified, flowing, modal style, and ultra-Anglo-Saxon to boot, it is somewhat more emotionally exerted in statement than others of his orchestral scores. In dramatizing the libretto (and inspired by Blake, no doubt) the composer did not hesitate to write some unusual passages which he would probably not have found use for in one of his symphonies—a wryly bleating section for saxophone which depicts Satan's trancelike sort of state. When they might want to own it. The story of the ballet is, however, a little more complicated. For one thing, it is certainly Italian, and the style in general is more authentic to those interested in classical record promotion, not to mention those bemoaning the state of the classical record business.
Woody Herman chose AR-2ax speaker systems for his listening at home. The sound of live music, be it rock or big band, is reproduced accurately on AR equipment.

The accuracy with which AR speaker systems reproduce music serves as a valuable tool for many notable musicians. Among the most notable is Woody Herman, whose big bands have long enjoyed great success. His secret seems to be an ability to stay in tune with the evolution of musical styles, as is documented by the Herd's latest recordings on the Cadet label. In spite of a schedule of more than 200 concerts every year, Mr. Herman can sometimes relax in the seclusion of his Hollywood home. Here, he listens to a high fidelity system consisting of an AR receiver, AR turntable with Shure V-15 type II cartridge, and a pair of AR-2ax speaker systems.

Performance: Stirring but not stupefying
Recording: Excellent

This listener was braced for a musical bludgeoning as the needle came to rest on the lead-in to The Stars and Stripes Forever. Hup-hup! Twenty-seven marches—really! The experience turned out more pleasant than otherwise, even for a man who doesn't know his Radaszky from his Rakoczy, and whose tendency, when they start whistling Colonel Bogey, is to hide under the bed until the all-clear is sounded at the Bridge on the River Kwai. The trouble with marches, perhaps, is that they are usually played by bands. When the Fiedler forces get hold of them, employing their spectacular string section to balance the brasses, woodwinds, and percussion, the musical effect is far more bearable.

Besides, only some of the marches in this bravura program are military in nature. There are marches from operas, like the Grand March from Aida and the march from The Love for Three Oranges. There are marches with a Latin flavor, such as Zacatecas and La Sorella; Gallic ones, such as the Valdres March and Sambre et Meuse; and the bucolic American variety with a Fourth-of-July gaiety, such as Up the Street, Morton Gould's wittily orchestrated American Salute based on John Philip Sousa's March Comes Home, and the National Emblem March. And there's Gershwin's Strike Up the Band—which, as it happens, was the title piece for a show that satirized militarism. Mr. Fiedler approaches all of them with immense enthusiasm and even delicacy, on the assumption that the march is not so easy to know how to deal with this music. The avant-garde composer Morton Feldman has always said that the biggest influence on him was the piano music of Rachmaninoff. Since Feldman writes tiny, soft, random, abstract music, this statement seems like a put-down. But Feldman, who is very shrewd and insightful about these matters, was saying something about Rachmaninoff as a purveyor of relics. There is indeed a certain abstractness about this music, a certain 'object-ness,' as if it is not the thing itself—i.e., truly organic Romantic music—but its counterfeit, coming from nowhere, going nowhere, set down merely in terms of appearances. Or so it seems to me. Horowitz obviously believes otherwise, but even his skill does not really convince. E.S.

Leonard Bernstein and Claude Debussy take the honors on this disc devoted to music for clarinet and piano written in the twentieth century, and it is a pleasure to note how well the light-hearted sonata Bernstein wrote when he was only twenty-three years old has stood the test of thirty years. It is redolent of the Forties, when Hindemith and Copland held sway as the strongest influences around the country, but it has the special, Bernsteinian melodic manner as well, and the most fetching moments are those when this manner, since become famous, prevails.

The Debussy Petite Pièce pour Clarinet et Piano, with Debussy's text, beautifully simulated, is simple in every possible way, and with a Latin flavor, such as Zacatecas and La Sorella. Torquemada: El bate del su sorriso. La Traviata: Di Provenza il mar. Un Ballo in Maschera: Eri tu. Otello: Credo in un dio crudel. Puccini: Tosca: Te Deum. Leonard Warren (baritone); RCA Orchestra, Frieder Weissmann, William Tarrasch, Wilfred Peltier, Renato Cellini, and Jean Paul Morel cond. Rome Opera Orchestra, Vincenzo Bellezza and Erich Leinsdorf cond. RCA VICTROLA VIC 1593 $2.98.

Performance: Excellent
Recording: Good

This recorded recital covers a span of sixteen years (1941-1957), virtually the entire recording career of this mighty baritone. The voice that was born from these grooves revealed its magnificence in the earliest examples (Faust and The Tales of Hoffman) and retained its vigor and richness virtually undiminished through the years. At times ('Pari siano') its resonant sound could be too bulky for expressive purposes, but it revealed unusually tender quality ('Di Provenza') and an agility ('Largo al factotum') seldom associated with such an instrument. Warren's sound was virile and commanding, and was controlled by a carefully honed and disciplined art. Firm intonation, clean attacks, and breadth of phrasing were his earmarks. Small stylistic reservations might be aired, but they pale before the singer's accomplishments. The disc belongs in every vocal collection as a faithful representation of a great artist whose 'prime' was exceptionally long-lasting.

The technical reproduction of these excerpts is excellent. My only complaint is that the Te Deum (excerpted from the complete Tosca on RCA VICTROLA VICS 6000) starts not with the accustomed opening ('Tre stessi') but some eighteen measures later, well into the scene.

G.J.

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CIRCLE NO. 97 ON READER SERVICE CARD
RECORDING OF SPECIAL MERIT

HOYT AXTON: Joy to the World. Hoyt Axton (vocals and guitar); orchestra. Never Been to Spain; The Pusher; Ease Your Pain; Indian Song; California Women; and five others. CAPITOL SMAS 788 $5.98.

Performance: Fine
Recording: Excellent

Capitol has been hoping for big things from Hoyt Axton, but so far there hasn't been a great deal of audience reaction. One reason might be that Axton, as a performer, comes on like a jolly, sly c & w singer. As a song writer, however, he is a brisk, mordant observer of the contemporary scene. I can see that the combination might make the average "country" fan uneasy. It's as if the Hee-Haw passel suddenly broke out in a Brecht-Weill number. Example: Never Been to Spain starts off jauntily as an appraisal of Spanish ladies, but the last verse ends with "Well, I never been to Heaven/But I've been to Oklahoma/Ahh, they tell me I was born there/But I really don't remember./ In Oklahoma/Born in a coma/But does it matter?/It really doesn't matter." Another: his justly famous song The Pusher, written in 1963, a time when drugs were considered something only decadent film stars and ghetto blacks used. The song compares the dealer in grass with the hard-drug pusher: "Yeah, the dealer take a nickel/Give you lots of fine dreams,/But the pusher take your body/And leave your mind to scream./ God damn the pusher." Two other aspects of Axton are heard here: the fundamentalist, as represented by Old Time Religion and Farther Along (both arranged by him), and the hip humorist of Lightnin' Bar Blues and California Women. The latter is sheer delight.

My guess as to why Axton isn't making it on Capitol is that the c & w form is associated in everyone's mind with the humorously rural vignette and the wheezing pomposity of a semi-religious statement about "life" within which it is almost impossible to say anything serious. Okie from Muskogee was serious all right, but was aimed at a known market. Axton's work appeals to a much younger and broader audience who can take c & w or leave it alone. I think he might benefit by getting out of the "country" bag and by finding a form in which his lyrics (the best part of his work) will be allowed to take precedence. Until then I think he'll remain a prophet without honor in c & w land and miss the mass audience he so obviously deserves.

P.R.

CALIFORNIA EARTHQUAKE: Reformation. California Earthquake (vocals and instrumentals). In the Beginning; Let There Be Light; Who is That Man; Friday 3 P. M.; Put Your Hand in the Hand; My God and I; Sally Capitl

RECORDING OF SPECIAL MERIT

HOYT AXTON
Both fundamentalist and hip humorist

Go Down; The Bible Salesman; and four others. UNITED ARTISTS UAS 6801 $4.98.

Performance: Preachy
Recording: Very good

Ye who praised "Jesus Christ, Superstar" in great numbers have brought this abomination upon us. Rock groups everywhere now peddle piety instead of music. The California Earthquake is an adaptation of the Blood, Sweat and Tears style to Jesus-rock; "Reformation" is a quick run-through of highlights of the Old Testament, blending, toward the middle, with some latter-day sermons. Even Leonard Cohen's Suzanne is fitted in, after considerable bending; if Cohen encountered this version, with its new cornball lyrics and all the trumpets blaring, he would say, no doubt, something like, "Depart from me, for I never knew you."

The singers can handle their voices—in Have You Read the Word, they do some interesting Blackwood-Brothers-style harmonizing—but generally they choose not to, featuring instead a soloist bent on imitating David Clayton-Thomas down to the finest nuance. If you like schmaltz mixed with religious cant, save your money until Ben Hur comes around again.

N. C.

THE CARPENTERS: Carpenters. Karen Carpenter (vocals); Richard Carpenter (vocals, keyboards); various instrumental accompanists. Rainy Days and Mondays; Saturday; Let Me Be the One; Hideaway; For All We Know; Superstar; Druscilla Penny; One Love; and two others. A & M SP 3502 $5.98.

Performance: Bloodless
Recording: Good

Karen Carpenter's voice is pleasant, with a hint of an edge to it; Richard Carpenter's keyboards have the same quality; his and Karen's over-dubbed back-up vocals fairly shimmer at times; the arrangements are clean, even tasteful. So why am I not happy? Probably because all these elements plus the kind of songs the Carpenters perform add up to schmaltz. It is a specific kind of schmaltz, to be sure, and very commercial, doctored up just right for those too young or too old or too lazy to get inside the music of the new, personal, quiet troubadours—Young, Kristofferson, Taylor, et al.—but who like to think they're "up to date." Well, this kind of record goes back a long way. The emotional connection between the Carpenters and their songs is about as strong as my last seventeen resolutions to quit smoking. I say it's either spinach or Doris Day, and I say the hell with it.

N.C.

JOHNNY CASH: Man in Black. Johnny Cash (vocals); Billy Graham (recitation); June Carter Cash (backing vocals); Tennessee Three (instrumentals). The Preacher Said, Jesus Said; Orphan of the Road; If Not for Love; Man in Black; Singin' in Viet Nam Talkin' Blues; Ned Kelly; Look for Me; and four others. COLUMBIA C 30550 $4.98, © CR 30550 $6.98, © CA 30550 $6.98, © CT 30550 $6.98.

Performance: Mournful
Recording: Excellent

The stuff in this album probably amounts to an extension of the cornball philosopher side of Johnny Cash, the side that prompted him to recite those incredible essays in the "Ride This Train" segment of his television show. I suppose if you want Johnny Cash, you have to take all of him, including this (and Billy Graham thrown into the bargain). I suppose, too, it's worth suffering through an album like this to see if he can get it out of his system and regain the magic of the way he used to tell us about how high the water was, or how many beers he had for breakfast.

(Continued on next page)
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ing stock arrangements of pieces "made fa-
rous" by Glenn Miller and Harry James and 
Gene Krupa. The music may be different, but 
the spirit is the same.

D.H.

EMERSON, LAKE & PALMER: Tarkus. 
Emerson, Lake & Palmer (vocals and instru-
mentals). Eruption, Stones of Years, 
fter class; Mass: Masticore: Battlefield; Aquarar-
kus; and six others. Cotillion SD 9900 
$4.98.

Performance: Electronic pop gone wild 
Recording: Very good

Emerson, Lake & Palmer very nearly blew 
your ears out when I heard them in concert a few 
months ago. I found their visual antics pretty 
annoying, and was even more bugged by their 
tendency to rip off concert pieces like Mous-
sorgsky's Pictures at an Exhibition (with lyrics, 
yet!).

I was surprised, therefore, to discover that 
their recorded stuff is done in considerably 
better taste, and, of course, without all that 
high-energy amplification roasting out your 
years. It's possible to hear that Keith Emerson 
is a musician of considerable potential. Most of 
the group's music is instrumental, with occasional 
vocals by bassist Greg Lake serving more as a 
change of pace than anything else. The major 
responsibility falls on Emerson and his wild ad-
sortment of keyboard instruments, synthesizers, 
etc.; he handles them with extraordinary 
energy and—most of the time—considerable 
innovation. Unusual time signatures abound, 
rapid tempos call up the musicians' fleetest fin-
gering, and a slight but attractive jazz tinge col-
ors the proceedings. It's music that's hard to 
categorize, but it has the remarkable ability to 
mix trippy rock sounds with significant musical 
content. And that is not exactly what one finds 
in your run-of-the-mill rock recording. I'd say it's 
worth a listen.

D.H.

RECORDING OF SPECIAL MERIT

LESTER FLATT AND MAC WISEMAN: 
Leister 'n' Mac. Lester Flatt and Mac Wiseman 
vocals, guitars); the Nashville Grass (instru-
mentals). You're the Best of All the Leading 
Brands; Special; Homestead on the Farm; 
Fever Day; and five others. Embryo SD 730 
$5.98, © M 8730 $6.95, © M 5730 $6.95.

Performance: Sad but sensational 
Recording: Excellent

Once upon a time a fellow named Artie Alini-

MAC WISEMAN

koff, who played the drums, came to Cincin-
nati from the town of Kingston, Pa. There he 
meter Steve Weismann, a guitarist from Chicago. 
other, a song in which he points out that "his 
hair's a little longer than we're used to," but he 
guesses that everything will turn out all right? 
Reminds me of Haggard singing about his pro-
musician. Most of the time tunes. This time Hot Tuna is electrified, 
and possibly even something more nourishing 
with little verve and musicality that after a 
while you find yourself exhilarated rather than 
depressed, and listening with much admiration 
to the distinctive style of a group whose youth 
and energy contrast so strikingly with the 
dowdy tone of their lyrics. Even in Angel's 
Food Cake Song, in which the hero's girl leaves 
him alone with his memories of sunny days 
"drinkin' our pink lemonade," there's a spark-
le in the presentation that left this listener 
contemplating the poor abandoned boy would soon 
find a much better replacement to fill the void, 
what is that sort of identity crisis. Not so long ago he 
made a huge hit out of Okie from Muskogee, 
trum little anthem of hatred for hippies that had 
considerable success among right-thinkin' folks 
because it confirmed their worst suspicions 
about people with long hair. What is one to 
make, then, of Haggard singing about his pro-

Bernard Herrmann: Music from 
Great Film Classics (see Best of the Month, 
page 81).

HOT TUNA. Hot Tuna (vocals and instru-
mentals). John's Other; Candy Man; Been 
So Long, Want You to Know; and five others. 
RCA LSP 4575 $5.98, © P BRS 
1761 $6.95.

Performance: Live rock 
Recording: Very good

Here is the second incarnation of Hot Tuna. 
the first was an acoustical affair, with guitarist 
Jorma Kaukonen and bassist Jack Casady (of 
the Jefferson Airplane) working their way 
through an attractive set of old blues and rag-
tune tunes. This time Hot Tuna is electrified, 
augmented with drums and—most important 
enhanced by an old jazz violinist named 
Paul John Creach.

The results still sound like a study in nostal-
gia, with the time factor moved up a few years, 
roughly to the decade between, say, 1935 and 
1945. This time the songs (with unidentified 
composers) are jivey jump numbers, bubbling 
with the bounce and rhythm of the little Harlem 
bands of the early Forties that were led by the 
likes of Louis Jordan, Tiny Grimes, and Earl 
Bostic. Paul John boogies along, pulling a 
slight drummer named Sammy Piazza along with 
him, and the excitement is just fine for as 
long as it lasts—maybe two or three numbers. 
(Continued on page 126)
From Rock to Bach in 0.25 Seconds

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You, who have no doubt adjusted to the crotchets of your current equipment (and perhaps even love them), may not think this much. Julian Hirsch, who must re-adjust to every new component that he tests, commended it: “Most receivers and amplifiers are surprisingly deficient in ease of use. Sony is to be congratulated.”

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CIRCLE NO. 62 ON READER SERVICE CARD
Then the novelty begins to pale, the solos start to sound repetitious, and I find myself wishing these guys would go off in a room somewhere and listen to Duke Ellington or Count Basie for six months or so. Now, there are some influences.

D.H.

INSTITUTIONAL CHURCH OF GOD IN
CHRIST: Grace. Institutional Church of God in Christ (vocals); J. C. White dir. A Little More Grace; Till I Surrender; I Can't Help But Serve the Lord; All Things Work Together for Good; You'll Never Walk Alone and five others. COTILLION SD 055 $4.98, © E 8055 $6.95, © E 8055 $6.95.

Performance: Good chorus
Recording: Good

Here's another one of those groovy and almost completely anonymous gospel choirs. Although the choir apparently has performed throughout the country, and won a "Best Gospel Choir" award from the National Association of Television and Radio Announcers, they're new to me. Like similar gospel ensembles I've reviewed lately, this one is loaded with good, and highly individual-sounding, singers—none of whom are identified by name on the liner notes. (What's the matter with you guys at Cotillion?) The material, most of it written by choir director J. C. White, is not particularly distinguished, however, and is saved from obscurity solely by the quality of the performances. (And I surely could have done without the maudlin rendition of Rodgers and Hammerstein's "You'll Never Walk Alone"). A fine gospel choir, but the lack of soulful material reduces the value of their recording.

D.H.

ELTON JOHN: 11-17-70. Elton John (vocals, piano); Nigel Olsson (drums); Dee Murray (bass). Take Me to the Pilot; Honky Tonk Women; Sixties Years On; Can I Put You On; Bad Side of the Moon; Burn Down the Mission. UNI 93105 $5.98, © B 93105 $5.98, © 8-73105 $6.98, © 2-73105 $6.98.

Performance: Ragged
Recording: Good

How do you figure it? How could a kid with the sensitivity to write Country Comfort and Where to Now, St. Peter?, a kid with the ability to achieve nuance of vocal inflection the like of which we haven't heard since Ray Charles—how could a kid like that be so bankrupt of judgment as to allow a bomb like this one to go out on the streets? "11-17-70" was recorded on that date during a "live" radio concert on WABC-FM (now WPLJ, as in White Port and Lemon Juice). It contains some small inside jokes with Honky Tonk Women, and another run-through of Burn Down the Mission, and ends in a slapdash medley in which not even Elton John seems to know what Elton John is likely to sing next.

Although John does bend his back over the piano (at least on Sixties Years On, by far the best cut), his singing generally sounds off-hand and cocky. "Live" radio featuring a star like Elton John seems to know what Elton John is likely to sing next, the solos start to sound repetitious, and I find myself wishing these guys would go off in a room somewhere and listen to Duke Ellington or Count Basie for six months or so. Now, there are some influences.

D.H.

JOY OF COOKING. Joy of Cooking (vocals and instrumental). Hush; Too Late, but Not Forgotten; Down My Dream; If Some God; Did You Go Downtown; Dancing Couple; Brownsville/Mockingbird; and three others. CAPITOL ST 661 $5.98, © 8XT 661 $6.98.

Performance: Jumpy
Recording: Excellent

Promotional material from Capitol tells us the Joy of Cooking drummer, Fred Kasten, switched from piano to drums after hearing Dave Brubeck. That could be taken two ways. And so could other aspects of this production from the West Coast. The two girls, Toni Brown and Terry Garthwaite, dominate the group. Miss Brown's electric piano and Miss Garthwaite's vocals dominate the sound, and Miss Brown is the chief songwriter to boot. The sound is disjointed and complex—but not like the way Motown does it. The girls bounce vocals back and forth, neither seeming able or willing to hold still and sing a minute. The instruments on most cuts are all rhythm instruments—piano, drums, conga drums, bass, rhythm guitar—and this proves every bit as tiresome as the worst Detroit bubble gum. (Review)

GORDON LIGHTFOOT: A summery voice singing summery songs

And yet the album has charm. The interplay of the girls' voices is fascinating. In an atypical song, such as the Brownsville portion of Brownsville/Mockingbird, in which there is a coherent line, or in the country-influenced Red Wine at Noon, the band achieves a straightforward musicality that some big-name musicians cannot approach. The band has style, and perhaps forty per cent of the time it doesn't stress rhythm at the expense of everything else. That's something—admit it.

N. C.

KING CRIMSON: Lizard. King Crimson (vocals and instrumental). Cirkus; Indoor Games; Happy Family; Lady of the Dancing Water; Prince Rupert Awakes; and two others. ATLANTIC SD 8278 $4.98.

Performance: Colorless
Recording: Very good

Robert Fripp, master of the Mellotron, and Peter Sinfield, a lyricist who must have had the Shakespeare sonnets drummed into his ears in his infancy, are still trying to keep together a case of which we haven't heard since Ray Charles—how could a kid like that be so bankrupt of judgment as to allow a bomb like this one to go out on the streets? "11-17-70" was recorded on that date during a "live" radio concert on WABC-FM (now WPLJ, as in White Port and Lemon Juice). It contains some small inside jokes with Honky Tonk Women, and another run-through of Burn Down the Mission, and ends in a slapdash medley in which not even Elton John seems to know what Elton John is likely to sing next.

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D.H.

LEO KOTTFKE: "Mudlark." Leo Kottke (guitars and vocals); various other musicians. Cripples Creek; Eight Miles High; June Bug; The Ice Minder; Bumble-Bee; Stealing; Monkey Lust; and seven others. CAPITOL ST 682 $4.98, © 4XT 682 $6.98.

Performance: Flightless
Recording: Very good

It's no accident that Leo Kottke's album was coproduced by John Fahey. Like Fahey, Kottke is a remote acoustic guitarist who knows his way around everything from Bach to Bluegrass. Despite his marvelous facility, however, Kottke's music doesn't wear well on me. Even though he obviously is running a rocky gamut of traditional, classical, and modern guitar styles, there is a monochromatic quality to the proceedings that makes me lose interest midway. Kottke's singing—he has a pleasant, deep voice—is a welcome contrast, and I wish he had used it more often.

D.H.

RECORDING OF SPECIAL MERIT

GORDON LIGHTFOOT: The Summer Side of Life. Gordon Lightfoot (vocals, guitar); various musicians. 10 Degrees and Getting Colder; Miguel; Go My Way; Summer Side of Life; Cotton Piece; Talking in Your Sleep; Nous vivons ensemble; Same Old Loverman; Redwood Hill; Love and Maple Syrup; Cabaret. REPRINT 2037 $5.98, © B 2037 $6.95, © M 2037 $6.95.

Performance: Excellent
Recording: Excellent

Gordon Lightfoot seems fascinated with summertime; the word "summer" appears over and over again in his album and song titles and in his lyrics, and the slow, aimless images of summer are often clearly evoked by his relaxed singing style and country-flavored melodies. This may be a natural fascination for a veteran of Canadian winters—after spending a few winters in New England, I'm rather taken with summer myself—or it may be merely a case of knowing oneself. Lightfoot has a summery kind of voice, and writes a summery kind of song. Cabaret, for example, suggests a background of fleecy clouds and heat shimmering over the blacktop with its lyrics about thumbing down the highway.

Lightfoot's gentleness is always welcome, in any case, and this album is up to his normal high standard. The arrangements are tasteful, for no unnecessary instrumental showmanship is allowed even though the list of musicians is impressive. Acoustic guitars are the most important backing instruments, although there (Continued on page 128)
A gentle touch of the push-buttons brings forth a gentle reaction from the Miracord 50H. The dynamically balanced arm responds gently with its frictionless bearing system, faithfully and flawlessly tracking the intricate record grooves. Gentleness, however, is just one attribute of the 50H; a clue to its superior performance is found in its features.

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Stylus Carnivorous may look cute, but he's a nasty little creature. He shows up when the stylus in your phonograph cartridge begins to wear. And when he shows up and starts grinding away — kiss your favorite record goodbye.

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For our free brochure, "Questions and Answers About Cartridges and Styli" write to Pickering and Co., Inc., Plainview, N.Y. 11803.
Loretta Lynn is the most straightforward of the girl country vocalists, having cultivated no idio- syncrasies of style as have, say, Dolly Parton and Kitty Wells. The thing I've always admired about her is her spunk—she stands up there and sings, as they might say somewhere south of Nashville, "just like a man." It must be rather nerve-wracking to be both a country-and-western singer, that the culture that produced her still clings hard to the wom- en's-place-is-in-the-home tenet. That's why there aren't many girl country singers, and that's why most of them—Loretta notably ex- cepted—sound a bit apologetic and pretentious. The thing I don't like about Loretta is that she seems stuck in the same mood most of the time, and on the same theme. Both are sketched out here in the songs If I Never Love Again (It'll Be Too Soon), Tryin' To Live Your Dearly Departed; My Home Town; Silvery Rain; Throw Down a Line; Faithful; Mr. Sun; and three others. CAPITOL T 7560 $5.98.

Performance: Air-tight
Recording: Very good

To visualize what this new English group sounds like, imagine what the Graceful Violin had to sound like if respectable Republicans were allowing their daughters to go out with its members. Crisp bursts of vocal harmonies in the vein of the Everly Brothers and Crosby, Stills, Nash and Young, combined with sassy acoustic guitars constitute the signature of Marvin, Welch & Farrar. They introduce nothing new, but their low-key approach, plus the vacuum left in the tight-harmony field by the apparent disintegration of CSNY, may mean the time is right for this sort of album.

They sing well. Hank Marvin, the main songwriter, is accomplished at writing for three-part vocal harmonies—not as good, complica- ted, or deep as Stephen Stills' when he is hot, but Marvin could prove more consistent. My Home Town, Silvery Rain, and Mr. Sun are interesting songs, with ambiguous lyrics and striking melodic ideas tailored to the vocal dynamics the group likes to play with. So far, the group is a bit short on style, but it is talent- ed and tasteful, and style may come. N.C.

COUNTRY JOE McDONALD: Hold on, It's Coming. Joe McDonald (vocals); instru- mental accompaniment: Joe's Blues; Mr. Big Pig; Jamala; Hold on, It's Coming; Air Algiers; Play with Fire; and four others. VAN- GUARD 79314 $5.98.

Performance: Predictably spastic
Recording: Fair

Vanguard should change its slogan; "Recording for the Connoisseur" this one ain't. Country Joe's previous adventures were recorded in Nashville with studio musicians and country standards for material; this one sounds a bit more contemporary, but not enough to dis- appoint his fans. Headlines seep into his repertoire, but never fear, his comprehension re- mains basically nil. Air Algiers has momentary waves of interest, since it is about Eldridge Cleaver and other Black Panther refugees and exiles hiding out in faraway places with exotic names. If it means anything at all, the selec- tions all have a good beat. My next-door neigh- bor heard this record through the wall and asked to borrow it for his next party. He'll do anything to break a lease. R.R.

LEE MICHAELS: 5th. Lee Michaels (vocals, keyboards); various musicians. Keep the Circle Turning; You Are What You Do; Willie and the Hand Jive; Didn't Have to Happen; Rock Me Baby; Do You Know What I Mean; Ya Ya; and three others. A&M SP 4302 $4.98.

Performance: Adequate
Recording: Good

Lee Michaels' appeal is elusive. His voice isn't particularly interesting. His arrangements are

stock rock stuff, keyboards and drums and an occasional sax riff keyed to building a big beat above all else. The songs he writes and the songs by others he sings don't make any lasting impression. Yet there is something about him that is appealing. I think it is his intensity; he is able to convey that one can be as wild as Iggy Stooge and still be positively sane. He isn't able to express such essentially optimistic feelings in his songs. So, too, with Military Madness, an accur- ately titled tune whose message is clear and direct.

But Nash is at his best in the more introspec- tive songs: Sleep Song, with its lovely opening line, "When you were asleep I was kissing your forehead/You gave a frown so I kissed you again"; quixotic and no doubt highly per- sonal songs like Simple Man, Man in the Mir- ror, and I Used to Be a King. These are just pieces that reach out and grab you. If that's what you need from pop music, then avoid Graham Nash; but if you can open up just the slightest crack to let his tunes come in, I think you'll find the rewards well worth the effort. D.H.

JONI MITCHELL: Blue (see Best of the Month, page 82)

Graham Nash
Gentle and forthright

Graham Nash (keyboards, guitar, and vocals); but if you can open up just the

MOTT THE HOOPLE: Wildlife. Mott the Hoople (vocals and instrumentals). Whisky Women: Angel of Eighth Avenue; Waterlow; Lay Down; It Must Be Love; and four others. ATLANTIC SD 8284 $4.98.

Performance: Predictable
Recording: Very good

Mott the Hoople is slowing down. Since it nev- er was one of my favorite groups, I was sur- prised to find that two bands here, Waterlow and Angel of Eighth Avenue, are among the best things they have done. In both there is a presence and a texture in the orchestrations that lift the songs out of the old frantic rock pattern that I had come to associate with this group. Michael Gray's string arrangement and conducting on Waterlow are major factors of its success. But it is in Angel that the major difference in its approach to its material be- comes apparent. For Mott the Hoople it is al- most a dangerous excursion, and, with the ex- ception of the cliché storyteller, it has a neat, or- dered drive for all of its four-and-a-half min- utes. Elsewhere things return to frenzy, with lesser results. When things slow down, the future of Mott the Hoople seems to be looking up.

P.R.

RECORDING OF SPECIAL MERIT

GRAHAM NASH: Songs for Beginners. Graham Nash (keyboards, guitar, and vocals); with various other musicians. Military Mad- ness; Better Days; Wounded Bird; I Used to Be a King; Be Yourself; Simple Man; and five others. ATLANTIC SD 7204 $4.98, ® M 7204 $6.95, ® M 87204 $6.95, ® M 577204 $6.95.

Performance: Gentle pop/rock
Recording: Very good

A gentle, soft-spoken quality is what one re- members from Graham Nash's performances with Crosby, Stills, Nash & Young. A good singer and a fair pianist and guitarist, he sometimes seemed lost in the company of his more aggressively high-powered musical associates.

Nash retains that quiet quality on this first solo collection, but he is not averse to produc- ing songs that are every bit as forthright and angry as anything written by Crosby, Stills and Young. Perhaps he's taken Teddy Roosevelt's classic advice (about a soft voice and a big stick) to heart. Chicago recalls once again those days when we all told ourselves, as Nash sings, "we can change the world." Most young peo- ple know it now, I suspect, a little more concretely, but it is to Nash's credit that he continues to ex- press such essentially optimistic feelings in his songs. So, too, with Military Madness, an accur- ately titled tune whose message is clear and direct.

But Nash is at his best in the more introspec- tive songs: Sleep Song, with its lovely opening line, "When you were asleep I was kissing your forehead/You gave a frown so I kissed you again"; quixotic and no doubt highly per- sonal songs like Simple Man, Man in the Mir- ror, and I Used to Be a King. These are just pieces that reach out and grab you. If that's what you need from pop music, then avoid Graham Nash; but if you can open up just the slightest crack to let his tunes come in, I think you'll find the rewards well worth the effort. D.H.

NAZZ: Nazz I.ii. Nazz (vocals and instrumentals). Some People; Only One Winner; Kicks; Regular Love; It's Not That Easy; Old Time Loversmack; Magic Me; and six others. SGC SD 5004 $4.98.

Performance: One-man rock foray
Recording: Good

Todd Rundgren is the whole show here. A re- markable young talent, he writes, sings, engi- neers, produces, and seems touched with the glow of a Stardom that has not yet reached its...
full potential magnitude. Unfortunately, the group—aside from Rundgren—is reasonably competent but smashingly average. Excellent Rundgren songs like *It's Not That Easy* and a superb song called *You Are My Window* are very nearly lost in the surrounding weed-filled musical undergrowth. And Rundgren isn't helped by one of the most out-of-tune pianos I've ever heard on a major pop recording. Rundgren deserves better production, better accompaniment, and better promotion. He's not there yet, but keep an eye on him for the future.

D.H.

DAVID NEWMAN: Captain Buckles. David Newman (tenor and alto sax, flute); rhythm group. Captain Buckles; Joel's Domain; Something; Blue Caper; The Clincher; *I Didn't Know what Time it Was*, Negus. COTTILLION SD 18002 $4.98.

Performance: Easy
Recording: Good

The title tune on this set is a drag; David Newman is too good a musician to sound like Ack- er Bilk. It thumps and jerks and blows its head off, but goes nowhere. Joel's Domain has some lovely muted trumpet by Blue Mitchell, and Newman's flute work floats like animated clouds in a cartoon sky. Just when I thought George Harrison's *Something* should be retired to the boneyard for a decade, Newman's organic sax wakes it up and gives it several more hours of playing power. Special mention goes to Eric Gale, a knowledgeable guitarist who has a future if he ever banishes Wes Montgomery from his psyche. Most of the arrangements are predictable and are never going to win any awards, but they don't hurt anybody, either. Today small favors are more welcome than ever. Buy this one and dream of the good old days when musicians played for themselves and not for a market.

R.R.

NILSSON: Aerial Pandemonium Ballet. Nilsson (vocals); orchestra. Daddy's Song; Together; Good Old Desk; Everybody's Talkin'; Bath; 1941; and eight others. RCA LSP 4543 $5.98, P 1756 $6.95, © PK 1756 $6.95.

Performance: Interesting
Recording: Interesting

Tennessee Williams writes new endings for his hit plays. Film directors cling to their own privately edited versions of their films, which they claim are superior to the ones in release. Writers reissue their novels with explanatory prologues, epilogues, and second-thought pref- aces. And now Nilsson has fallen prey to Monday-morning quarterbacking. He has taken ma- terial from two of his earlier albums, "Pande- monium Shadow Show" and "Aerial Ballet," and re-engineered them, at times tossing in new vocals or deleting them, remixing, and taking things out of sync. And—in his case as in the others—what has resulted will probably be of great interest to those in the business and be an elaborate bore for the public at large.

Although a redundancy as an album, the rec- ording does make an interesting point. The creative person's compulsion to tinker with what has often already become an established public success stems from a streak of perfectionism that runs parallel to his commitment to his work. But second creative thoughts are surely the ultimate luxury. And if it is truly a creative work, it is an exercise as fruitless as trying to rearrange the genes of a fully-grown child. Once a work has seen the light of day, it remains there on the basis of its initial impact.

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MR. EDISON HAD THIS LITTLE PHONOGRAPH...

By Paul Kresh

The Phonograph—or gramophone, as the English have always called it, to distinguish the machine that plays discs from one that reproduces sound on cylinders—tells you its past in Argo's new two-record set called "The Wonder of the Age—Mr. Edison's New Talking Phonograph." The initial effect is curious, somewhat like staring at one of those trick pictures that used to decorate certain cardboard boxes—a picture included an identical picture, which included another picture, in an endless series. But this feeling soon passes as the talking machine talks about itself. Every effort has been made to avoid wearying the untutored mind with discussions of the history of the phonograph than it is well for me to know, or likely I would retain. And the pace of a British documentarian, no matter how ingenious the assembled, is nothing if not deliberate. This set is not going to make any chants. Yet for those fascinated by the subject, it makes for an amusing and rewarding—not to mention instructive—reading. I was especially delighted by Freda Dowie's waggish reading out of an old magazine article in which a wife complains of her husband's adulterous affair with his record collection to the neglect of his life and his loved ones. "Marryed to a Gramaphile" could be reprinted today and still hit the progency of its target dead center.


Now he confirms all the promise, brings it up to date, and makes it clear that the bright mixture of Delta blues piano, Fifties rock-and-roll, soul music, sensuality, and just sheer talent has put together has become one of the major styles of contemporary pop music. Listen to the way in which he modifies Bob Dylan's "It's a Hard Rain Gonna Fall" and "Takes a Lot to Laugh, It Takes a Train to Cry," and George Harrison's "Beware of Darkness" to make the time-and one wonders how the last word in quadrasonic stereo will strike tomorrow's listener if Argo should issue a sequel to this album seventy years hence.

Two hours had passed by the time I got to this point, and I wondered, just a little disloyally, if I hadn't learned slightly more about the history of the phonograph than it was good for me to know, or likely I would retain. And the pace of a British documentarian, no matter how ingenious the assembled, is nothing if not deliberate. This set is not going to make any chants. Yet for those fascinated by the subject, it makes for an amusing and rewarding—not to mention instructive—reading. I was especially delighted by Freda Dowie's waggish reading out of an old magazine article in which a wife complains of her husband's adulterous affair with his record collection to the neglect of his life and his loved ones. "Marryed to a Gramaphile" could be reprinted today and still hit the progency of its target dead center.


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stereo review

Leon Russell: Leon Russell and the Shelter People. Leon Russell (piano, organ, guitar and vocals); various other musicians. Stranger in a Strange Land; Of Thee I Sing; Alcatraz; Home Sweet Oklahoma; and six others. Shelter Recordings. On Mercury called "Asylum Choir" went virtually unnoticed, although the germinal qualities of the Russell style were apparent.)

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in its own time. Fussing with it later seems only to blur its original outline.

Ideally, of course, all the artistic thinking and rethinking should come before a record is initially released, but the artist is under pressure to produce, and especially in the music business, which takes place very quickly and barely tempo the attention span of the average teenage. I suppose it is, in a way, a tribute to Nilsson's status at RCA that he can indulge himself in an album like this. But I really think the wiser course is, like Dylan and several others, to refuse to release what doesn't absolutely satisfy you. The vault should be the musician's equivalent of the writer's bureau drawer. Better the solid gold creative trickle than a flood of unsifted nuggets.

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Wade in the Water; Children Gone Astray; I've Gone Too Far; On the Cross; What You Gonna Do; Troubles of This World; and six others. CHECKER CK 10061 $4.98.

Performance: Good gospel
Recording: Good

From the city of Chicago, where gospel groups abound, come the Salem Travelers, who bring a gospel approach to popular music and a dash of pop to gospel. The rock beat gives a fresh kind of strength to such musical sermons as Wade in the Water and On the Cross, while the religious fervor and sermon-y tone they introduce to Ol' Man River and Send It On Down infuse these pieces with a force that is especially arresting. The group also has a mastery of harmonic texture that can make a commonplace pop tune like I've Gone Too Far a fascinating exercise. They manage to be relevant and au courant in such numbers as Children Gone Astray, with its beggar-boy calling out hauntingly for a coin. I was going to say that the group has incorporated a kind of James Brown shriek into its style, too, but then I realized it was the other way around. It is from gospel, in fact, that soul has drawn some of its most appealing ingredients.

BRINSLEY SCHWARZ: Despite It All. Brinsley Schwarz (vocals and guitar); orchestra. The Slow One; Ebury Down; Love Song; Funk Angel; Starship; and three others. CAPITOL ST 744 $5.98.

Performance: One-two-three
Recording: Good

Is Brinsley Schwarz really Guy Lombardo breaking in a new group in England? Or is this album of the sweetest-sounds-you-ever-heard-in-rock meant to be taken seriously? A possible tipoff is the cover, which has a drawing that looks like an illustration for a children's book. It is of a girl carrying a fork load of hay across a meadow. Innocent enough, certainly. But inside, the album starts off with Country Girl, presumably the inspiration for the cover, and against a bouncy, pastoral musical background Schwarz pants, "I feel at ease with my country girl, yeah,/ She knows how to groove me."

"Yeah," indeed. Is said country girl just forking hay, or is she constructing her own private haystack in an out-of-the-way place in preparation for the summer tourist rush? I have a feeling I'll never know.

P.R.

SILVERBIRD: Broken Treaties. Silverbird (vocals); instrumental accompaniment, Reuben Ortiz and Tony Camila arrs. Custer's Last Stand; Friends; Long at Last; Would You; Fight; Poor Boy; and four others. CAPITOL ST 650 $5.98, ST 690 $6.98.

Performance: Hard-rock beat
Recording: Good

I guess it was just a matter of time until it happened. It's called Silverbird and there are seven of them. They're all related, and they're all Indians. American Indians, that is. To make sure you get their point, they start off by titling the album 'Broken Treaties' and introducing themselves with their own song, Custer's Last Stand. Frankly, it sounded to me like the soundtrack to a Hopalong Cassidy movie. Silverbird makes such a big point of the fact that they are Indians (all the while claiming it's secondary to their talent as musicians), but nowhere does it say to which proud tribe the Ortiz family belongs.

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Basically, the group is solid rock with a lot of fancy guitar playing. The vocals are exceptionally fine, especially in a quiet sad ballad, Long at Last. Naturally many of the songs are either protest or narrative tributes to the redman's suffering at the hand of pioneering whites. I would have preferred hearing this group present some traditional folk songs of their heritage in modern interpretations. I feel Silverbird is up to this, musically. Otherwise, I really don't see the point of emphasizing the ethnic gimmick—unless, of course, they are looking for sympathy.

R.R.

ALICE STUART: Full Time Woman. Alice Stuart (vocals and guitar); orchestra. Full Time Woman; So Free; Natural Woman; I Lose Control; You've Ruined Me; Cajun Man; and six others. FANTASY 8403 $4.98.

Performance; Good
Recording; Good

For a full-time woman Alice Stuart has a sweet singing voice, one that sounds more like that of an ingenue. Her material—she wrote all of the songs here—is a bit lustier, but not much. You've Ruined Me is not so much a complaint as it is a sigh of relief. On the cover she is shown in her motorcycle outfit astride her bike, but she is bending down to kiss a child I presume is hers. It's like that throughout the album: it starts out funky and ends up well, nice. There's a moral there somewhere, but it escapes me at the moment.

P.R.

SUGARLOAF: Spaceship Earth. Sugarloaf (vocals and instrumentals). Hor Water; Rusty Cloud; Rollin' Hills; Country Dawg; Music Box; Woman; and four others. LIBERTY 11010 $4.98.

Performance; Interstellar racket
Recording; Good

It seems odd to me that the musical wing of a generation which only a year or two ago was proclaimed to be finished with the "print" age and moving out into other mediums goes right on sending out albums stuffed with printed matter. Every third album seems to have a poster, a lengthy biography, or a manifesto of some sort bulging out of it. Sugarloaf's new release has a cardboard pollution wheel, a profile of Sugarloaf, a series of pictures of them at work, and a long review of Buckminster Fuller's novel Spaceship Earth. Scanning all this took the better part of a none too rewarding afternoon. Then I sat down to listen to the record—my second mistake. The title song might, in a pinch, be fine for the underscore for something like Catwomen of the Moon, but having to actually listen to it is another matter. Rusty Cloud, about our old friend Pollution ("Now we find the poison grime transported even in the winds"), is only the beginning of a harrangue that lasts through Mother Nature's Wine ("Sunshine, my mother nature's wine") and Rollin' Hills ("You've got to control your environment"). It made me feel so guilty that I hid all my empty beer cans in my sock drawer. Then they get down to things like I Don't Need You Baby or Music Box—material they sound like they know and feel something about—Sugarloaf can be a persuasive and likeable group. If they really felt strongly about pollution, what did they include all that junk in their albums for?

P.R.

SWEET PAIN. Sweet Pain (vocals and instrumentals); orchestra. Berkeley Lady; The Lover; Richard and Me; By Myself, Joy; and
five others. UNITED ARTISTS UAS 6793 $4.98.

Performance: Varied
Recording: Good

Running the gamut seems to be what Sweet Pain does best. Virtually every track in the album takes a new tack, but nothing comes off very well or very interestingly. Which leads me to the following flight, with apologies to the Scarlet Pimpernel:

They seek it here, they seek it there,
Those groups, they seek it everywhere.
Is it in heaven? Is it in hell?
That demned, elusive million-sell?

P.R.

SANDY SZIGETI: America's Sweetheart.
Sandy Szigeti (vocals and guitar); orchestra. Daydream Mountain; Sweet Melinda; Carmen's Tune; My Steady Diet; America's Sweetheart; and four others. DECCA DL 75270 $4.98, © 6-5270 $6.95, © 73-5270 $6.95.

Performance: Trying
Recording: Good

All up and down the West Coast the return-to-the-earth is in full swing. People are filling in their swimming pools to create organic gardens, starlets are telling their producers, "Max, I just gotta get away from all this pollution," and even Jacqueline Susann, that renowned yenta du monde, has taken to appearing on talk shows in denim overalls to promote her new movie. Sandy Szigeti is the latest to be taking around the compost heap, and he's created an album full of high-thinking, deep-feeling songs that are all "poetic" in the wrong way. It is all professionally enough done, but after a band or two one begins to yearn for the good old days of superficiality. You know, the days when if someone said you belonged in a barnyard you were apt to be insulted. P.R.

THE THIRD WORLD: America the Beautiful.
The Third World (vocals and instruments). Frozen Man; Blue Rose; Steal the Guns; Hitler Is Alive and Well; Sunshine; Shot Down; and five others. RCA LSP 4502 $5.98, © P85 1707 $6.95, © PK 1707 $6.95.

Performance: Muddled
Recording: Good

The Third World does not belong on this planet. This quintet of screamers only adds to the aural pollution already rampant. The eight songs all sound exactly alike, and on the few occasions when I was able to hear the lyrics through the dissonance, they were sophomoric. Spare me the inanities of "Hitler is alive and well in you" or "Steal all the guns, oh look what they done." I listened to three of the tracks on this record three times apiece, and I still couldn't tell you what they are about. The din is too frenetic for dancing; in fact, there is not one single aspect about this mess I could commendable. The whole thing gave me Excedrin Headache No. 900. R.R.

TIMBER: Bring America Home. Timber (vocals and instruments). Witch Hunt; Same Ole Story; The Spirit Song; Canada; Pipe Dream; and five others. ELEKTRA EKS 74095 $4.98.

Performance: Energetic
Recording: Good

Timber is a spirited, youthful group that specializes in a boomy kind of massed-voice effect that has touches of rock, gospel, and anything else they happen to feel in the mood for. Best thing here is Canada, a rousing track recorded with a big, natural sound. The lead vocalist is Judy Elliott, and she is consistently ingratiating, particularly in Canada and in The Spirit Song. Still, the whole album slips as easily off the mind as an ice cube off a stove. Which in these heavy-thinking days is a relief. P.R.

T-REX. T-Rex: Marc Bolan and Mickey Finn (vocals and instruments); Tony Visconti arr. The Children of Rarn; Jewel; The Visit; Childe; The Time of Love Is Now; Diamond Meadows; Root of Star; Beltane Walk; Is It Love?; and six others. REPRISE 6440 $4.98, © B 6440 $6.95, © M 86440 $6.95, © M 56440 $6.95.

Performance: Wobbly
Recording: Very good

I'm not familiar with the careers of Marc Bolan and Mickey Finn (this is not the girl banjo player but another Mickey Finn). The vocals here sound something like those of a short-lived marshmallow called Mungo Jerry, but I wouldn't want to accuse anyone unjustly of having been a member of Mungo Jerry. The T-Rex vocals are pretty awful, in any case. There's an occasional instrumental spasm that's interesting, thanks to countless overdubs, and there's some merit in some of the melodies, but the lyrics are in the same class with the vocals. Many of them hint at some sort of fantasy pregnant with social significance, but mostly they just sound silly, as in "Met a woman she's spouting prose/She's got luggage eyes and a

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Roman nose." The predominant tone of the arrangements is that old familiar adolescent-pompous heaviness. Try a peanut-butter and jelly sandwich instead. N.C.

RECORDING OF SPECIAL MERIT

THE TONY WILLIAMS LIFETIME:
Ego. Tony Williams (drums); orchestra. Clap City; Circa 45; Mom and Dad; Lonesome Wells; Two Worlds; and four others. POLYDOR 24 4065 $4.98.

Performance: Absolute joy
Recording: Superb

This is one of the most delightful albums I've heard in some time. Tony Williams is a fantastic drummer, a flashy composer, and a brilliant arranger. Why he bills himself as the Tony Williams Lifetime, as if he were a group, when he is so patently the whole show escapes me. In any event, he has given us a real good time album that is as exciting sonically as it is musically. The production values here are really superb—I can recommend it as the demonstration record of the year. But the music and Williams' playing are the thing, and from the beginning, when he rips off Clap City on bongo drums with a hand-clapping accompaniment, to the final extended virtuoso piece The Urchins of Shermèse, this is a recording that pulses with life. Some of the things, such as Circa 45, reminded me of the great days of Art Blakey and the Jazz Messengers, yet such a number as Mom and Dad seems totally original. With its wry undertones and the first-rate work of Khalid Yasin on organ, it is a superb show-piece for Williams' combined talents. This a vivid triumph for all concerned, and a record you ought to own.

Recording: Very good

Edgar Winter, brother of the more highly-publicized Johnney and one of the most adept performers on today's pop scene, is having difficulty putting it all together. Clearly, his skills trace to a jazz-blues background (he is a good enough alto saxophonist to play with most major jazz groups), yet Columbia seems intent upon transforming him into a heavy-rock star.

Given that decision, however, the group Winter has assembled includes the sort of players who can make it work—who should make it work. Paired with him in the front line is tenor saxophonist/singer Jerry LaCroix, a solid talent in his own right; the back-up ensemble of trumpet, tenor saxophone, and rhythm section plays with self-assured professionalism and the down-home raunchy-rock South Texas blues feeling Winter is reaching for. The problem, for me, is that the qualities that make Winter most interesting—his fine technical skills as both a saxophonist and a keyboard player, for example—are shunted aside in favor of his singing, and in favor of his generally derivative compositions (usually written in collaboration with LaCroix). Winter's vocals are peculiarly hard to pin-point; sometimes he sounds like Joe Cocker, sometimes Leon Russell, and only rarely like an exciting new singer. I assume the higher-pitched, wailing voice that carries most of the harmony lines is LaCroix's; it sure doesn't do much to improve the music.

So, this is a generally uninteresting recording from a generally interesting performer. One of the rare fascinating moments is provided by the White Trash version of an old Woody Herman blues hit called I've Got News for You; Winter doesn't sing much like Woody, but the arrangement has copied one of its best accompaniment figures from the old Herman chart.

YES: The Yes Album. Yes (vocals and instruments). Yours Is No Disgrace; The Clap; Starship Trooper; a Life seeker, b. Disillusion, c. Warn; I've Been All Good People: a. Your move, b. All good people; A venture; Perpetual change. ATLANTIC SD 8295 $4.98.

Performance: Atrocious
Recording: Very good

Yes is a no-no. Yes is precocious, but you can't escape the feeling that this is a generally uninteresting recording of the year. But the music and Winter are the thing, and from the beginning, when he rips off Clap City on bongo drums with a hand-clapping accompaniment, to the final extended virtuoso piece The Urchins of Shermèse, this is a recording that pulses with life. Some of the things, such as Circa 45, reminded me of the great days of Art Blakey and the Jazz Messengers, yet such a number as Mom and Dad seems totally original. With its wry undertones and the first-rate work of Khalid Yasin on organ, it is a superb show-piece for Williams' combined talents. This a vivid triumph for all concerned, and a record you ought to own.

P.R.
JAZZ

DAVE BRUBECK: Summit Sessions. Dave Brubeck (piano); various groups. That Old Black Magic; Raga Theme for Raghu; Men of Old; CJam Blues; Our Time of Parting; Blues in the Dark; Allegro Blues; and six others. Columbia C 30522 $4.98, CA 30522 $6.95.

Performance: A Brubeck grab-bag
Recording: Good to very good

I like to think of Dave Brubeck as the ultimate jazz capitalist—that is, the most successful purveyor and distiller of salable musical merchandise. Unaffected by the passage of time and fashion, he makes virtually every new stylistic change into grist for the mill, potentially new packaging for what is still essentially Brubeck merchandise.

Included here are some classic examples of what I mean: thirteen tracks—some released before, others new—ranging from blues and bossa nova to performances with everyone from Indian percussionists to Thelonious Monk, Charles Mingus, and the New York Philharmonic, a cross-cut through Brubeck’s musical interests of the last decade.

As music, it is virtually always superficial, saved only here and there when performers like Jimmy Rushing, Carmen McRae, and Louis Armstrong carry Brubeck beyond his usual capacities with their enormous artistic strengths. But more often, it consists merely of Brubeck’s endless fidgeting around with what little are more than musical Halloween costumes. Since he has never been a particularly strong jazz performer, I suppose he can’t be faulted for finding the best survival methods he can. After all, look what capitalism did for Jay Gould.

D.H.

ROY ELDRIDGE: The Nifty Cat. Roy Eldridge (trumpet); Bud Johnson (tenor and soprano saxophones); Bennie Morton (trombone); Nat Pierce (piano); Tommy Bryant (bass); Oliver Jackson (drums). Jolly Hollis; Cotton; 5400 North; Ball of Fire; Wineola; The Nifty Cat. Master Jazz Recordings MJR 8110 $5.98.

Performance: Disappointing
Recording: Good

I really wish I could like this recording. I’ve been listening to a lot of Roy Eldridge’s stuff from the Thirties lately, and he was indeed a “nifty cat” then. Now he sounds as though he’s struggling too hard, unhappily dependent upon the same licks he’s been using for lo, many years.

The rhythm section is crisp, competent, and semi-modern, Bennie Morton plays respectable trombone, but only Bud Johnson, that perennially young swinger, is really impressive. Johnson has to be at least as old as Eldridge, but the juices still seem to be flowing through his fingers and around his imagination. Alas, the Johnson moments are not enough to carry the album, and much as I ad-
mire Eldridge’s past contributions, I can’t recom-

mend his work this time around. D.H.

RECORDING OF SPECIAL MERIT

MEMPHIS SLIM: Blue Memphis Suite. Memphis Slim (piano and vocals); various jazz musicians. Blue Memphis Suite; Youth Wants to Know; Boogie Woogie 1970; Chicago Seven; Mason Dixon Line. WARNER BROS. WS 1899 $4.98, @ M 51899 $.69, @ M 51899 $6.95.

Performance: Down-home abroad

Recording: Good

Memphis Slim’s Blue Memphis Suite, which takes up the first side of this happy set, is an ambitious project that succeeds. Slim (née Peter Chatman) has composed eight songs that depict the funky saga of his life. Jazz-soul filters through his singing style as though he had a mouth full of turnip greens. Slim went abroad to record this album and used some fine European musicians. The textures, the weaving in and out of harmonies, the true happiness that seems obvious from the ensemble work leads me to believe the conditions were cozy. There is a real Chicago feeling to the performance that comes through loud and clear on the tru-

bute to Otis Spann and Earl Hooker. The gener-

gap is bridged neatly on Youth Wants to

Know (“Don’t throw water on my head and keep tellin’ me it’s rainin’”; You know I’m like the young people, I gotta have some better explain-

”), but it is in the Memphis sections that the peculiar kind of sliding blues in which Slim excels really comes alive. The chorus throughout is sensually notable, and Peter Green is a young guitarist who will be heard from. Not a yawn in the bunch.

R.K.

DAVID POMERANZ: New Blues. David Pomeranz (vocals, guitar, piano, percussion, kazoo); various musicians. Brenda; Please; Missin’ Song; New Blues; Singin’ on the Train; Brandy Wine; Tunnel Is Thataway, the Vet Took the Cat Away Blues; and four others.

DECCA DL 75274 $4.98.

Performance: Cool

Recording: Very good

The new blues often sounds like the old jazz, sometimes like country rock, and never like the old blues. There are some twelve-measure constructions in here, but that alone does not make them blues. Pomeranz has an agile voice and a jazz singer’s roundabout way of getting at the drama in a song, so his most successful ventures are with the cool jazz-style songs like New Blues and Brenda; Please. Songs with catchy, conventional melodies like Brandy Wine and Singin’ on the Train need more vocal style than he has.

Pomeranz wrote all the songs and did all the arranging, and the arrangements are good and clean. Paul Simon is heard twice on the guitar, but the main feature behind the voice is the distinctive, whumping Fender-bass bottom built by Steve Mendel. Pomeranz is a versatile, competent vocalist, but I don’t find him a particularly interesting one. His song-writing skills must rate higher—although it should be noted that Tunnel Is Thataway, the Vet Took the Cat Away Blues is not nearly as marvelous as its title. He can write old-fashioned melo-

dies. (Aching) and striking modern ones (I’ll Never Be Gone). If you want a recording that’s unquestionably up to date and yet re-

minds you of 1960 Brubeck with vocals added, this is one—maybe the only one.

N.C.

SPOKEN WORD

THE CONGRESS OF WONDERS: Re-

volting. The Congress of Wonders (Richard Rollins and Howard Kerr, comedians). Radio Phil; Star Trip; Pigeon Park; Flipping-on-the-Hood; and four others. FANTASY 7016 $4.98.

Performance: The grinning of America

Recording: Good

Richard Rollins and Howard Kerr, products of the University of California Drama Department, who make up the entire cast and writing staff of the group known as “The Congress of Wonders,” supply what I presume to be Con-

sciousness III humor, since it seems to go over best with the current crop of young. The secret of enjoying it, I think, is in not listening too attentively. Maybe you have to be out something. The ideas behind their satirical skits are sound—there is just no sense of proportion for selection in the way the stuff is worked out; they slop it on to your plate cafeteria style and hustle the line along to foil complainers. When satirical references fail, a mere mention of mari-

juana or the California police always brings a sure laugh, the way Brooklyn used to; why sharpen your arrows when you can just shoot them into the air wild with a fair hope they’ll land in a friend’s heart somewhere!

Thus, the material synoptics better than it plays. The idea of a take-off on Star Trek, the late science-fiction TV series, is commendable. As the Starship Intercourse is described “thrusting its way through space on another penetrating mission,” the air crackles with comic promise. The multi-racial crew is sharply drawn, including the solemn-faced “Smock” (“I’m a Vulgarian—jokes are beyond me”), and their efforts to pull things together on the space-ship as it drifts “fifteen billion miles off course” are amusing for a while. The trouble is, the skit remains as wildly off-course as the spaceship; any number of solid situations, in-

cluding a mutiny by the astronauts, dissolve in wearying confusion. As the crew head their lumbering vehicle toward the planet Euphoria after eleven rather shrill minutes, one is re-

lived to hear the last of it. The same thing happens after a few minutes in the company of aging rock musicians in an item called “Pigeon Park”; in a take-off on a Russian folk-tale in “Stepney Fetchnik”; in a bit about a bank-bombing bunch in “The Bomb”; and finally, in an attempt at an exposé of racial slurs in old-time radio serials called “The Stoned Ranger,” where, again, the boys hit out so wildly that their quarry sneaks off in the middle of all the commotion and gets away un-

scathed. I did, however, enjoy the portrait of “Pronto,” the handkerchief-head, Uncle-Tom-

ahawk Indian guide, and was inclined to con-

cur in his declaration to the hero that “You see one wagon train, you see them all.” P.K.
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Many keyboard composers in France during the eighteenth century adapted the delightful, folksy noëls for organ, usually with a set of variations, but the best known of those who did so is surely Louis-Claude Daquin. That these popular Christmas ditties (really carols) don’t necessarily have to be restricted to holiday listening is easily shown by the present release, a very charming, quite brilliantly played collection of some of Daquin’s best noëls, plus a good sampling by Daquin’s slightly older contemporary, Jean-François Dandrieu. The organ is an excellent one, and Marie-Claire Alain plays this repertoire with her usual exuberance, and fewer rough spots than it was in some of the RCA cassettes that have come to me for review in the past. D.H.

DAQUIN: Noels: No. 1, in D Minor; No. 9, in D Major; No. 10, in G Major; No. 11, in D Minor. Marie-Claire Alain (Clicquot-Harpé-Enman organ of Sarlat, Dordogne). Must have arisen; Chan ton de Voix Hautaine. Adam was a poor man; Noel de Saintonge; I don’t necessarily have to be restricted to hol.

DANDRIEU: Noëls: Joseph wedded well; Adam was a poor man; Noël de Saintonge; I have arisen; Chantons de Voix Hautaine. DAQUIN: Noëls: No. 1, in D Minor; No. 9, in D Major; No. 10, in G Major; No. 11, in D Minor. Marie-Claire Alain (Clicquot-Harpé-Enman organ of Sarlat, Dordogne). MUSI-

CIAL HERITAGE SOCIETY © MHC 2022 $6.95

ADRIENNE ROBERTS

MAHLER: Symphony No. 2, in C Minor ("Resurrection"). Edith Mathis (soprano); Norma Proctor (contralto); Bavarian Radio Orchestra, Eugene Ormandy cond. COLUMBIA © MT 30446 $6.98.

Performance: Kodachrome version
Recording: Very good
Playing Time: 32' 17"*

Performance: Excellent
Recording: Excellent except for processing difficulty
Playing Time: 43' 02"*

The Heifetz-Munch reading of the Beethoven Violin Concerto, after a twelve-year life span in the active catalog, still stands as the classic performance for its sheer brilliance, polish, and poise. There are other equally fine performances for other interpretative styles, among those on cassette being the more romantic Fer-

ras Karajan on DGG. I am no Heifetz worshiper in matters of musical taste, but here the combination of flawless control, absolute intonational purity, and virile support from Munch and the Bostonians insures that the heavenly sphere that links this work with other impres-

sionist masterpieces. Ormandy's treatment is at the other end of the scale, yet it works gorgeously on its own terms—a meticulously con-

structed outpouring of tonal color from start to finish, with the orchestra at the height of its form, beautifully recorded, and only a certain element of humor absent from the braying of those donkeys in the otherwise superb delineation of the On the Trail movement. The sound is quite good by current cassette standards, although if you listen carefully, there remains that haze of hiss and a slight compression in the otherwise big, clean sound.

P.K.
Price and packaging on a single cassette are major considerations here, since the rival cassette version, that by Georg Solti and the London Symphony, costs an additional $4 and requires two additional turnovers. On the other hand, neither Kubelik’s interpretation of Mahler’s apocalyptic symphonic fresco nor its recording are up to the standard represented by the same conductor’s treatment of Janáček’s Taras Bulba and Sinfonietta (also available on DG cassettes). Not only are there audible imperfections of orchestral ensemble in the Mahler performance, but one is very much aware of a studio ambiance that confines rather than liberates the huge climaxes of the first and last movements. Despite the obvious intelligence and attention to detail of phrasing that characterize Kubelik’s reading, these mechanical shortcomings are all too obtrusive to my ears. The Solti performance for London, as heard on discs, remains a marvel of precision, passion, and recorded sound—one of several very distinguished recorded versions, to which, unhap-
pily, Kubelik’s does not quite measure up. D.H.

RECORDING OF SPECIAL MERIT

R. STRAUSS: Elektra (highlights). Birgit Nilsson (soprano), Elektra; Regina Resnik (contralto), Clytemnestra; Marie Collier (soprano), Chrysothemis; Tom Krause (baritone), Orest; Gerhard Stolze (tenor), Aegisth. Vienna Philharmonic Orchestra, Georg Solti cond. London © M 31186 $6.95, © L 90186 $7.95.

Performance: Vivid

Recording: Likewise

Playing Time: 51' 40''

When issued in disc format in 1967, this recording of the Strauss-Hofmannthal horror opera aroused lively controversy because of the Cinemara-style microphoning employed by producer John Culshaw not only to heighten the reported holocaust of certain moments in the score, but to give the listener a genuine sense of space and motion. I liked the Culshaw production then, and I like it now, reheard in the bits and pieces here, which include Elektra’s lamentation early in the opera, the savage dialogue with her guilt-ridden, fear-haunted mother, Clytemnestra, the Recognition Scene with Elektra and Orest, and the finale, from the point of Aegisth’s murder at the hands of Orest. The singers here are one and all superb—Nilsson in top form, projecting with stunning impact of the most demanding soprano roles in all opera, Resnik conveying almost palpably the poisonous presence of Clytemnestra, and Tom Krause as a manly and purposeful Orest. Solti and the Vienna Philharmonic reiter all the important orchestral lines with stunning brilliance and power. The cassette transfer is good, though lacking a bit of the dynamic range of the disc original.

One major gripe (applicable to all Ampex-made cassettes for London that I have received for review to date): the lack of program notes, not to mention the text in the case of Elektra, is incomparably, especially at the premium price demanded for cassettes. D.H.

BIRGIT NILSSON

Stunning in a demanding soprano role

version comes along, and the listener is floored all over again.

This new multi-channel package from Ormandy would seem to deserve all the medals for the moment. The approach to both works is enthusiastic but controlled, with the virtuosity of the Philadelphia forces fully on display. Yet what little there is of music in these works is allowed to sing with unforced eloquence. Since I find the 1812 more interesting to hear when the Russian hymn Save, O God, Thy People is sung by a chorus rather than played by the strings, I was pleased that a chorus had been hired for the occasion—and beautiful, recorded too. I can also assure you that the electronic cannon and bells are every bit as deafening as real ones. And in Wellington’s Victory, when the French approach from the right playing Marlborough en va-en guerre, they move across your equipment from one speaker to the next with hair-raising realism. Both engagements, in brief, are indisputable victories for Ormandy. P.K.

COLLECTIONS

MONTSERRAT CABALLÉ: Sings French Opera Arias. Gounod: Faust: II etait un roi de Thulé; Jewel Song; Mireille: Voici la vaste plaine et le désert de feu; Roméo et Juliette: Je


Performance: Voically radiant

Recording: Excellent

Playing Time: 50' 57''

Montserrat Caballé does not produce one ugly sound in this recital of French arias; her vocalism is quite marvelous. Historically, however, I’m not at all certain that she really feels at home in this music. There are a number of things which sound both un-French and undramatic. The opening Faust scene, for instance, in spite of the radiance of her voice, is rather laconic in mood; this is a matter not just of a slow tempo but of feeling as well. “Depuis le jour,” too, sounds merely healthily Italianate rather than refined and Gallic. Nonetheless, anyone who admires Miss Caballé will assuredly want to own this tape, and, indeed, there is a great deal to enjoy on it. The orchestral accompaniments are adequate, and the sound (bar
ing tape hiss—why won’t DGG use Dolby?) is excellent. The package includes notes on the performer but no texts.

RECORDING OF SPECIAL MERIT


Performance: Skilled

Recording: Excellent

Playing Time: 49'53''

The first sequence of this imaginatively conceived program of English music begins with a number of fairly well-known Elizabethan lute pieces and concludes with a novelty, a sonatina for two guitars by a slightly younger contemporary of Beethoven, Michael Camidge. The latter is not particularly significant, but it does have considerable charm. The second sequence involves three moderns: a pleasant neo-classic suite by John W. Duarte (b. 1919), a very fine, atmospheric Canto for guitar by John McCabe (b. 1939), and—a slight nod to the avant garde—a Soliloquy for guitar (later being mostly平等ized guitar sounds, with which the “live” guitar plays duets) by Thea Musgrave (b. 1928). It’s a well varied program, and the playing is extremely skillful, especially in the contemporary works. The earlier material on occasions lacks the spirit and charm that Julian Bream can give it, but in all other ways this is very distinguished playing. The cassette reproduction, marred only by a fair amount of hiss, is very open and clean. I.K.

ENTERTAINMENT

PEARL BAILEY: Pearl’s Pearls. Pearl Bailey (vocals); Louis Belson and His Orchestra.

STEREO REVIEW
Here's That Rainy Day; I Never Met a Stranger: Close to You; A House Is Not a Home; If You Go Away, and five others. RCA © PK 1743 $6.95, © P8S 1743 $6.95.

Performance: Not a matched set
Recording: Excellent
Playing Time: 35' 24"

When Miss Pearl Bailey takes over a stage, a screen, or a microphone, you feel at once that you’re in the hands of one of the nation’s top professionals, a woman of poise, equilibrium, and worldly wisdom who can turn the slightest of pop numbers into a heart-to-heart talk that will send you out into the world in better shape. I have loved Miss Bailey ever since, as a boy, I heard her explain what it really meant to be tired.

Yet even the strongest performer is in some measure dependent on the quality and appropriateness of the material he or she performs, and some of the “pearls” entrusted to our friend on this cassette should probably have been put back into the oyster. It is hard even for a woman as cheerful as Miss Bailey at her most melancholy to make anything more than a soggy mess out of a song like I Never Met a Stranger, or bring life to a number as intrinsically flat and pallid as Close to You. Give the girl a ball worth running with, though, and she scores high—in A House Is Not a Home, in Supper Time—even in a self-pitying tour de force like If You Go Away, which is all wrong for her, but which she puts over by sidestepping the usual melodramatic buildup at the end and bending the subject to her own emotional requirements. The sound reflects the general improvement in RCA cassette standards over the past few months.

P.K.

BILL MONROE: Country Music Hall of Fame

Mix up the sounds of harpsichords, cellos, and various Baroque instruments with the beat of a big band and what you usually wind up with is a mishmash. How Ted Heath has avoided such a disaster in the present album is his own trade secret, and I have no wish to pry. But avoid it he has, and this program of pieces by the strongest combination of “three B’s I’ve ever heard of—the Beatles, Bach, and Bacharach—turns out to be an uncommonly delightful one. Mr. Heath has shown not only courage in this ingenious enterprise, but considerable tact as well. He never lets the rock beat distort or destroy his ingenious arrangement of Bach’s “Air on the G String” any more than he allows the Baroque effects to kill the feeling of carefree modernity in Raindrops Keep Falling on My Head or the high spirits of Hey Jude. The result is half an hour of pure instrumental joy in which the old and the new meet without the slightest embarrassment to either.

P.K.

BILL MONROE

Thirty years of dexterous mandolin picking


Performance: Very good
Recording: Fair to good
Playing Time: 30' 28"

One of the wonders is how a big man like Bill Monroe can take a tiny instrument like a mandolin, with those little double strings so close together up at the top of the neck, and play it with such dexterity and speed for thirty years. I compared this tape—which contains a few old reissued tracks but mostly new versions of Monroe’s most famous songs—with an ancient revue called “Bill Monroe’s Best,” and I’m convinced his picking and noting fingers haven’t lost anything. Can’t say the same for his voice, which cracks a bit, most obviously on The Girl in the Blue Velvet Band. But the Bluegrass Boys click along nicely, still distinctive among Bluegrass bands in the high quality of their bass work and in the mandolin’s refusal to become subordinate to the banjo. Twin fiddles are heard on some tunes, and the backing banjo rhythm—on Put My Little Shoes Away, most notably—has extraordinary moments. My main complaint is with the quality of the cassette, which tended to lose one channel periodically. Maybe Monroe’s fingers outran the electricity.

N.C.

THE WILBURN BROTHERS: Sing Your Heart Out, Country Boy

The Wilburn Brothers (vocals); unidentified accompaniment. Santa Fe Rolls Royce, Tellin’ My Troubles (vocals); unidentified accompaniment. The Wilburn Brothers’ vocal harmonizing is a rough-cut version of the Everly Brothers, and they are as steady and consistent as a good workhorse, but the main characteristic that comes through here is a negative one—lack of anything approaching style. They are acceptable (deadly word), as heard here, to country music listeners of all tastes, but I can’t imagine anyone becoming very passionate about this tape.

Most of the songs are typical Wilburn Brothers songs, not too good, not too bad, mostly fair-to-middling. One stands out for its insight: Honky Tonk Songs tells of a fellow who was bombarded by country songs on the radio, took them too seriously, and became suspicious of his old lady. He went out and got drunk (on beer, of course—there’s rarely any legitimate tax-paid hard liquor in country songs) only to discover she really was where she said she was, out shopping with her Uncle Joe. This ability to make fun of itself is one of the abiding strengths of country music. But it’s the song and not the singing that’s interesting, even in this case. The Wilburns sound as if they’re just doing another day’s work.

N.C.

CAT STEVENS: New Masters

The Cat is indeed one of the new masters of pop music, with a soul-country, rugged-delicate, cabaret-outdoorsy voice and a knack for writing songs that are at once catchy and substantial. One reason this album will disappoint people (and it will) is that his last one, “Tea for the Tillerman,” was better. But compare “New Masters” to the other releases for this month, and it sounds pretty good.

It has a serious flaw, though, and it’s disappointing to find Cat Stevens prey to this: the album is outlandishly overproduced. Needless horn blasts, tubas, and rattles intrude on almost every song; the strongest (though the drummer is good) is often too loud, and the strings too silly. Cat (or someone) managed to contain things occasionally, as in Shift That Log, a strange but simple song of the type Cat does so well. But similar songs, like Moonstone, are buried under glop. Practically every song has some appeal, however, and this album is certainly better than most of the other overproduced albums I know.

N.C.
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STEREO REVIEW
EQUA LiZ-A: RECORD AND PLAYBACK

LAST month I explained the need for low-frequency equalization in a recorder's tape-playback preamplifiers, with the boost starting at 3,180 Hz and tapering off at 50 Hz for the 7½- and 15-ips speeds. The reasons for selecting these particular frequencies are both technical and historical, but obviously some standard playback equalization must be used if tapes made on one machine are to be playable on another.

As you may recall, throughout much of the audio range a playback head presented with equal-strength signals (magnetic strength, that is) doubles its output every time the frequency of the signal doubles. The playback equalization built into every recorder is essentially a compensation for this: a descending 6-dB-per-octave slope that spans the six octaves between 50 and 3,200 Hz, with its center or 0-dB point at 400 Hz. The transition to the full 6-dB-per-octave slope is gradual, taking up two more octaves to either side of the 50- and 3,180-Hz "turnover" points. Thus the equalization range actually extends from 12.5 to 12,800 Hz.

But there are further factors to complicate the matter. At some point a playback head's predictable 6-dB-per-octave rise in output with frequency no longer holds, and there is first a gradual roll-off followed by a precipitous high-frequency drop. The frequency at which this point occurs is determined by (1) the speed of the tape, and (2) the narrowness of the playback-head gap. (Narrowing the gap and/or increasing the tape speed improves high-frequency response on playback.) Furthermore, at some point above 1,000 Hz (3,000 Hz is a good figure), treble losses set in from additional causes. These include the bias signal sent to the record head (which is needed to reduce distortion, but which unfortunately also erases some of the high-frequency signal as it is recorded), signal losses in the recording head itself, and the tendency of the closely spaced magnetic particles that embody the high frequencies on the tape to neutralize each other. To offset these inherent high-frequency losses of the record-playback process, a treble boost is used during recording. This generally begins, for the 7½-ips speed, in the vicinity of 3,000 Hz, and the slope of the boost is far steeper than the 6-dB-per-octave curve of the playback equalization. Typically, recording pre-emphasis may be up more than 20 dB by the time we reach 20,000 Hz, but because the amount needed depends on the magnetic characteristics of the tape, the electrical properties of the specific heads in the machine, the amount of bias, and other things, no rigid standard can be set. All that can reasonably be specified is that the final recorded product, when played with standard NAB playback equalization, will be "flat" within perhaps ±2 dB.

But, as I have indicated, standard playback equalization permits a slight (3 dB) drop at 50 Hz, and more below that. Therefore, the recording equalization of high-quality home and professional machines additionally applies a slight compensating bass boost in the very low frequencies that serves to keep response within 2 dB all the way down to 30 Hz.
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