

# Stereo Review

AUGUST 1970 • 60 CENTS

## SPECIAL SPEAKER ISSUE



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# introduction her 202, than ever before in of high fidelity.

So it may surprise you to learn how good the 202's AM section is.

Sensitivity? 10 microvolts. Selectivity? 44 dB. Image rejection? 40 dB.

Sounds more like FM than AM specifications, right? That's exactly what we had in mind.

Even on the 202, our lowest-priced AM/FM stereo receiver, AM sounds almost as good as FM mono.

## **100 watts is a lot of power for \$249.95.**

Technology has brought us a long way. We can remember (and it wasn't so long ago) when even the top receivers made didn't have as much power as the new \$249.95 Fisher 202.

Power is important, not just to blast the neighbors, but to drive today's watt-eating speakers at any volume level without strain.

And it takes power to drive, not just one, but two pairs of speakers (main and remote) at concert levels.

100 watts (or 25 watts per channel rms) is a lot of power.

Of course, power is useless without low distortion. And the Fisher 202 has only 0.8% harmonic distortion at rated output. That's clean!

IM distortion is a low 1.2%.

And the power bandwidth includes everything humans are capable of hearing: 25 to 20,000 Hz.

All of which merely proves that the 202's power is *usable* power.

## **The controls.**

This is an area in which Fisher has always excelled. Our receivers all include Baxandall tone controls, and the 202 is no exception.

Baxandall controls, though they're more expensive than the simple attenuators most low-priced (and many high-priced) receivers use, are a much better way of boosting or cutting back bass and treble.

Besides bass and treble controls, the 202 has an illuminated computer-type function switch (AM, FM, phono, and two auxiliary functions), a volume control, balance control, speaker selector switch. And there's a loudness contour switch, FM muting switch, stereo/mono switch and a tape-monitor switch.

In the back are jacks for almost every function conceivable.

## **The appearance.**

Some people think the new Fisher 202 is the most beautiful component Fisher has ever produced, regardless of price.

Now we're not casting aspersions on the rest of the Fisher line, which has been widely imitated.

But the 202, with its black-out panel and lighted dial pointer, has a certain simplicity about it. (We think it's gorgeous, but perhaps we're biased.)

## **Technology defeats inflation.**

As prices rise, it's become more important for hi-fi companies to spend time and money on research. Because only research will provide less expensive ways to achieve good sound in the home.

The Fisher 202 is the best example of this we know.

# The Fisher®

# Now, with the of the Fis \$249.95 buys more the history c

In an inflationary economy, technological progress is the sole remaining antidote to rising prices.

Your dollar buys less meat, bread or coffee than ever before—but more penicillin and more airplane miles. Also, luckily for you, more high fidelity.

We sincerely believe that the new Fisher 202 stereo receiver represents a particularly significant milestone in this deflationary evolution of technology. Never has so much high-quality electronics been packed into such a complete package for so little money. The search for low-cost solid-state performance has finally paid off in a big way.

## The Fisher 202 has an incredibly good FM tuner section.

Modern technology has permitted tremendous improvements in FM reception, even in a low-priced receiver like the Fisher 202.

Years ago only the best tuners around had a sensitivity rating as low as the new Fisher's 2.5 microvolts. (That's sensitive enough to pull in those weak, distant signals, and make them sound like strong, local stations.)

Only the most expensive equipment had a selectivity figure as good as the new Fisher's 42 dB's. (It will pull in that weak, distant station, even if it happens to be located right next to a powerful, local station on the dial.)

It's not only important for a receiver to bring in a weak station, adjacent to a strong signal, it's also important to be able to reject a weak signal when it turns up at the same point on the dial as a strong one. The figure that measures this is capture ratio. And in the 202, it's only 3 dB. (The lower the number, the better.)

Signal-to-noise ratio is 60 dB. Not many receivers under \$300 have a figure like that. (For all practical purposes, the figure, 60 dB, means that you can't hear any hum, noise, etc. the tuner itself might generate.)

Now, a word about image rejection. Remember how in a lot of the old-fashioned equipment you heard the same station at several different points on the FM dial? Well, the Fisher 202 has eliminated that problem. (Image rejection: 50 dB.)

As for stereo separation, the 202's 35 dB is about as good as it is possible to achieve on FM, no matter how much you pay.

And to eliminate between-station noise while tuning, there's an FM muting switch.

## Now, for the AM section.

For years, AM sections, even when they were part of expensive receivers, got short shrift.



Mail this coupon for your free copy of The Fisher Handbook, 1970 edition. This reference guide to hi-fi and stereo also includes detailed information on all Fisher components.

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11-33 46th Avenue  
Long Island City, N.Y. 11101

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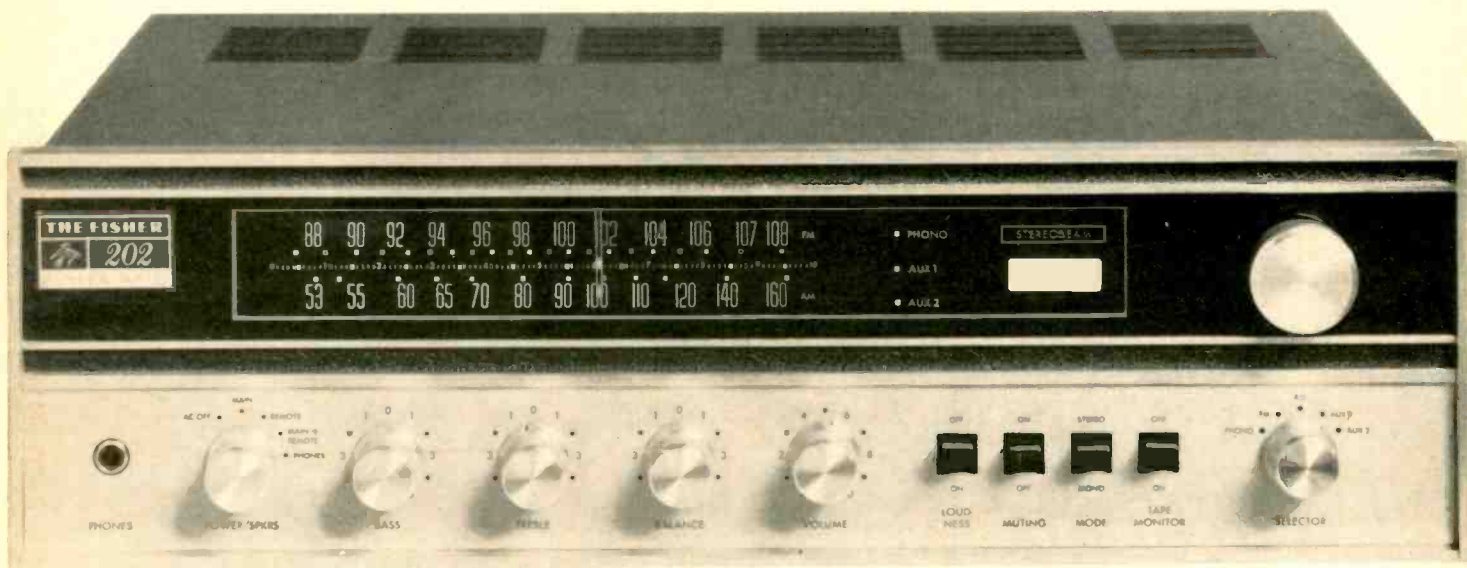
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PRICES SLIGHTLY HIGHER IN THE FAR WEST.

Vinyl-covered wood cabinet, \$14.95.

**Fisher  
is pleased  
to announce  
the revaluation  
of the dollar.**



With two exceptions — the Mode Selector which lowers the tonearm base for single play, and the arm's true gimbal suspension — you'll find a lot of features like the 1219's on one automatic turntable or another.

After all, every turntable has to rotate records, and every tonearm has to track them

But all the features of the 1219 are quite different than those you'll find on any other turntable. They're engineered to finer tolerances, function with greater accuracy and do precisely what they're supposed to do.

As a result the caliber of the 1219's performance is very exclusive indeed.

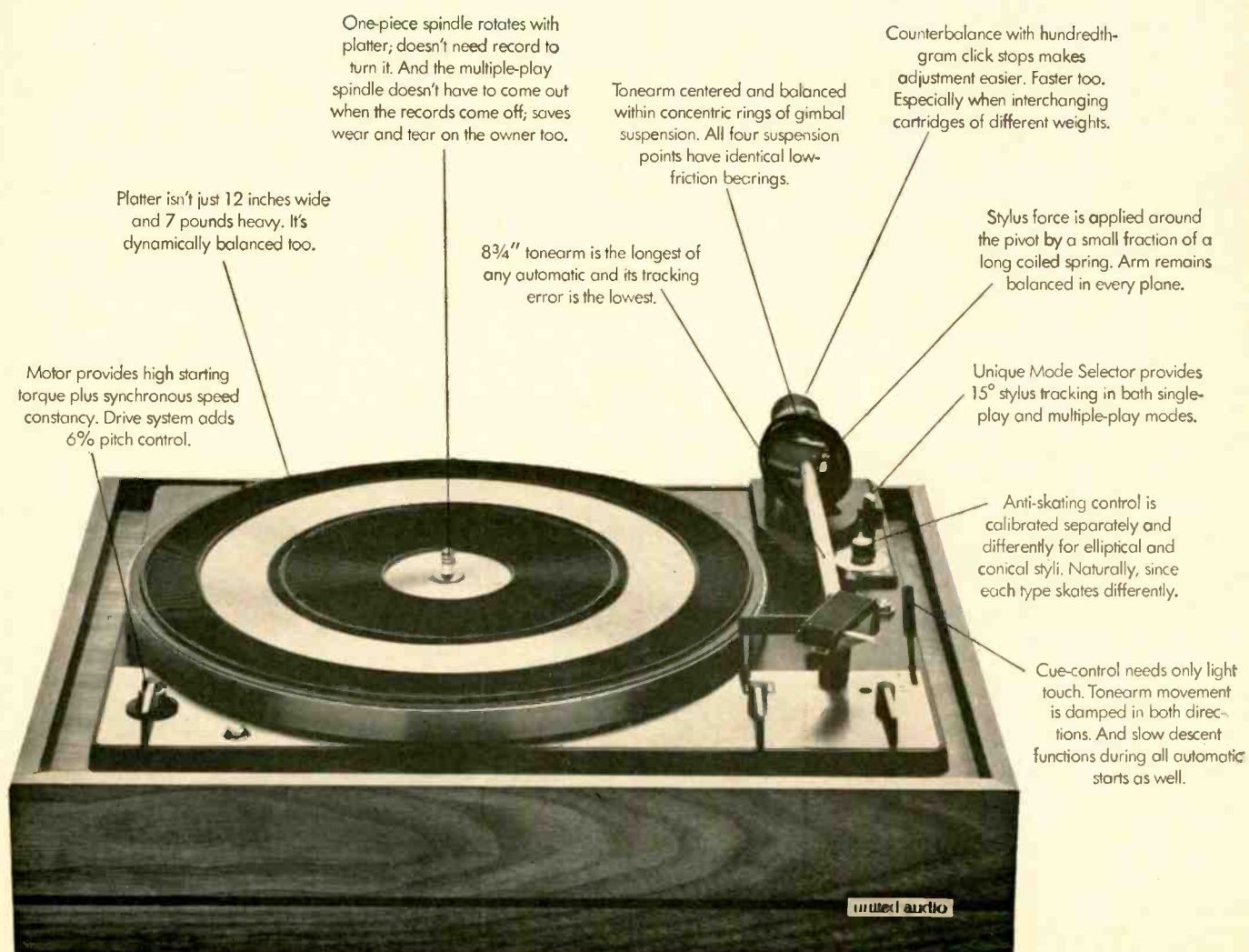
Some of the 1219's features are highlighted below. You should be able to make any comparisons you like very easily.

These and other features are described much more fully in our literature. It's yours for the asking, together with complete reprints of test reports from independent laboratories.

United Audio Products, Inc.,  
120 So. Columbus Ave., Mount Vernon,  
New York, 10553

**Dual**

## Not all of these Dual 1219 features are exclusive. But the way they perform is.



One-piece spindle rotates with platter; doesn't need record to turn it. And the multiple-play spindle doesn't have to come out when the records come off; saves wear and tear on the owner too.

Platter isn't just 12 inches wide and 7 pounds heavy. It's dynamically balanced too.

Motor provides high starting torque plus synchronous speed constancy. Drive system adds 6% pitch control.

8 3/4" tonearm is the longest of any automatic and its tracking error is the lowest.

Tonearm centered and balanced within concentric rings of gimbal suspension. All four suspension points have identical low-friction bearings.

Counterbalance with hundredth-gram click stops makes adjustment easier. Faster too. Especially when interchanging cartridges of different weights.

Stylus force is applied around the pivot by a small fraction of a long coiled spring. Arm remains balanced in every plane.

Unique Mode Selector provides 15° stylus tracking in both single-play and multiple-play modes.

Anti-skating control is calibrated separately and differently for elliptical and conical styli. Naturally, since each type skates differently.

Cue-control needs only light touch. Tonearm movement is damped in both directions. And slow descent functions during all automatic starts as well.

united audio

\$175.00

CIRCLE NO. 12 ON READER SERVICE CARD

FORMERLY HI FI/STEREO REVIEW

# Stereo Review

AUGUST 1970 • VOLUME 25 • NUMBER 2

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By WILLIAM ANDERSON



## EDITORIALLY SPEAKING

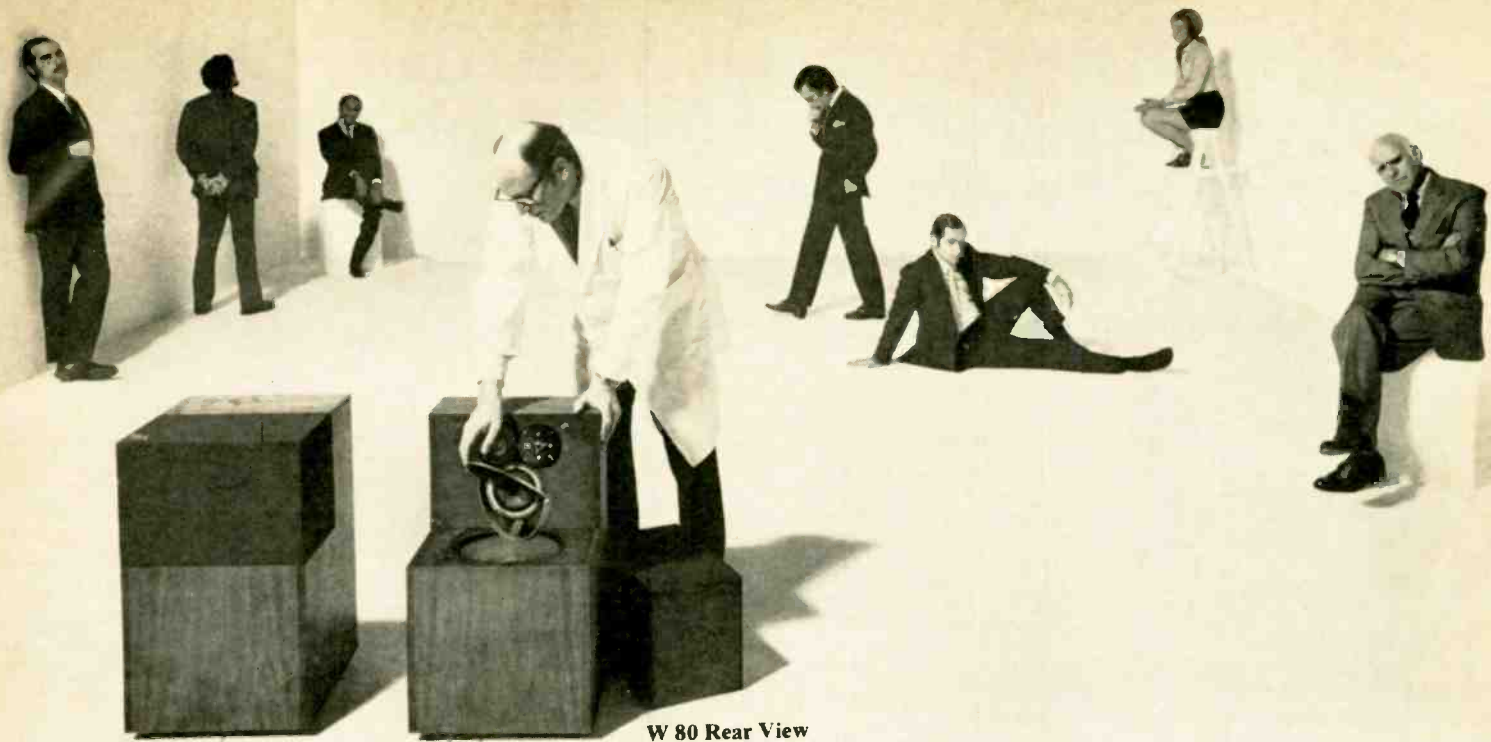
### LOOKING FOR LEMNITZ

AMONG the many differences between classical music and popular music there is one, perhaps because of its obviousness, that is often overlooked: by and large, classical music is composer-centered, and popular music is performer-centered. Proof of this is not hard to come by—record-company catalogs, the monthly Schwann Catalog, and record magazines the world over acknowledge this difference in their listings. Popular-music composers are seldom credited for their efforts on record jackets (their publishers almost always are), and occasionally they even fail to get their last-name-only mention on the disc label. And although the late proliferation of composer-performers may be having its effect on their awareness, few people, if put to the test, could name the composer of *Smoke Gets in Your Eyes*, let alone any of their current pop-song favorites. What they can tell you, however, is the name of the performer, which leads me to suspect that the burden of musical communication in the case of popular music lies mostly on the interpreter, and that it has already been preempted by the composer in the case of classical music. This is not to gainsay the valuable contributions of classical performers, but merely to suggest that the music itself is of greater importance than anything they might be able to do with it. This may explain why it is possible to enjoy great classical music even in a miserable performance.

But this difference which makes itself felt so pervasively in the cataloging of recordings of classical music poses an occasional problem for listeners. Even in classical music it is possible (some would say inevitable) to develop performer-favorites—singers, instrumental soloists, conductors, and even whole orchestras. But ordinary catalog sources just don't work that way. A reader newly enslaved to the enchantments of the harp wrote recently for help in locating recordings of harp music, and I was glad to oblige—by referring him to the *Schwann Catalog Artist Issue*, a publication that *does* work that way, if only you are lucky enough to have or find a copy.

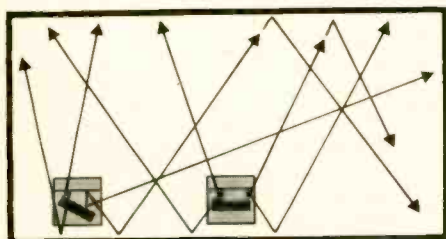
The last edition of this useful compendium appeared in 1966, long enough ago to make it almost mythical for most people, but I am happy to report that another (the seventh of its ilk) is on press as of this writing. Its 320 pages of closely set type are divided into sensible chapter headings: *Orchestras, Trios, Quartets, Etc.* (from Aachen Symphony to Zurich Radio Symphony Orchestra—conductors included); *Conductors* (Claudio Abbado to Algis Zuraitis—orchestras included); *Instrumental Soloists* (by instrument—accordion to zither); *Choral Groups* (Aachen Cathedral Chorus to Zemel Choir); *Operatic Groups* (Accademia di Santa Cecilia to Washington Opera Society Orchestra and Chorus); and *Vocalists* (from baritone Georges Abdoun, whoever he is, through soprano Tiana Lemnitz, to soprano Teresa Zylis-Gara). All, with the exception of the conductor listings, include composers, works, and record numbers. It is as much fun to browse through as any dictionary, but of course it is eminently useful to collectors as well. It will be available at your local record dealer's by the time you read this—but hurry. Schwann never prints enough of these, and they go like hot cakes.





W 80 Rear View

## When our engineers told us what the new VARIFLEX® Speaker Systems could do...we didn't believe it.



After all when we were told that two speaker systems can be placed end-to-end as a console, or at various spacings apart, or any distance from the wall, or at almost any height between ceiling and floor, and still project flawless stereophonic reproduction to all areas of a room simultaneously... we were skeptical... but there are three ways to deal with a skeptic.

### First, tell it like it is.

Engineers love to explain things, so that's what they did. Variflex Speaker Systems, we were told, are not like any other speaker systems past or present. They are unique because they are the only reflective speaker systems that are completely adjustable. In the rear of each unit is a variplanar disc set in a universal swivel mount. This disc, they said, can be finger tip adjusted for any combination of vertical to horizontal positions. Once adjusted for correct acoustical reflection, the speaker systems would provide overall stereophonic reproduction as promised... and furthermore, we were told, we could move about the room freely and never lose that important sense of program source characteristic of concert hall performance.

### Second, put it to the test.

We watched as two W80's were ad-

justed. The engineer merely tipped the variplanar disc this way and that... and rotated the swivel mount a little to the left, a little to the right... and that was all there was to it. It seemed too easy to us. But after about two minutes, or maybe a shade less, they were ready. We were asked to stand anywhere in the room. Then we were treated to a fine performance of Tchaikovsky's Pathétique. "Walk about," they suggested. We did and we were amazed. It was true stereo everywhere and anywhere. There was none of the splatter or surround effect associated with omnidirectional systems. We had to admit this was a "first" for all of us and we found it difficult to restrain our excitement.

### Third, do it yourself.

"Now," they suggested, "you try it." It looked like fun. We each took a turn adjusting the speakers. Only one thing bothered us. The W80 makes everybody with finger tips an instant expert. Then they asked us questions.

### What acoustical problem is solved?

A very important one. Since almost all rooms are acoustically unbalanced, fixed directional systems, conventionally placed, are too rigid to overcome this deficiency. Only the amazing flexibility of the new Variflex Speaker Systems can provide "all over" balanced stereo.

### What will women say?

"It's about time," probably. W80's are a woman's dream. They are never unwelcome intruders. Since they are reflective systems, the front of the cabinets resemble fine pieces of furniture. Because they permit placement versatility, they can be inserted

decoratively or unobtrusively into any room scheme... even as built-ins with an optional roll out base.

### What about quality?

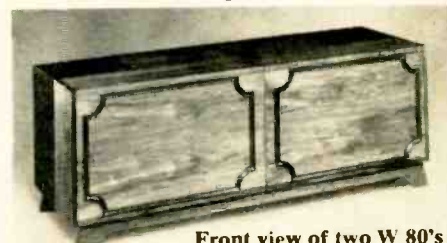
That was an unnecessary question. The W80's are Achromatic Speaker Systems—and therefore are critically engineered in the uncompromising tradition of excellence.

### A suggestion to all skeptics.

Believe your own ears. Just visit a Wharfedale dealer, and ask for a dramatic demonstration. Start walking around as a disbeliever... you won't be one for long. You'll be as amazed as we were. Wherever you pause, you will be aware of distinct stereophonic separation... Variflex may well be the component speaker innovation of the 70's.

For full specifications on the W80 and all Wharfedale Systems write: Wharfedale, division British Industries Co., Dept. HK50, Westbury, N.Y. 11590

## Wharfedale Achromatic Speaker Systems

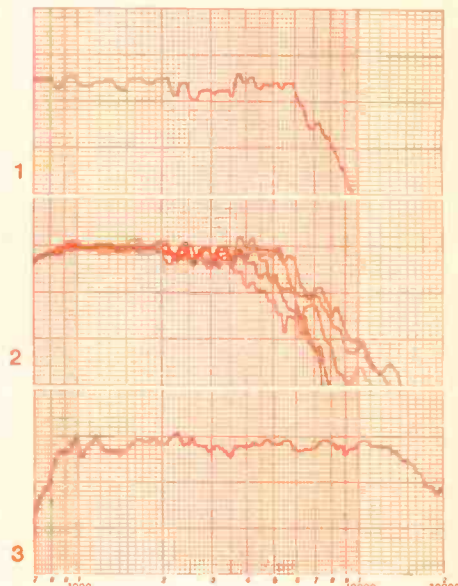
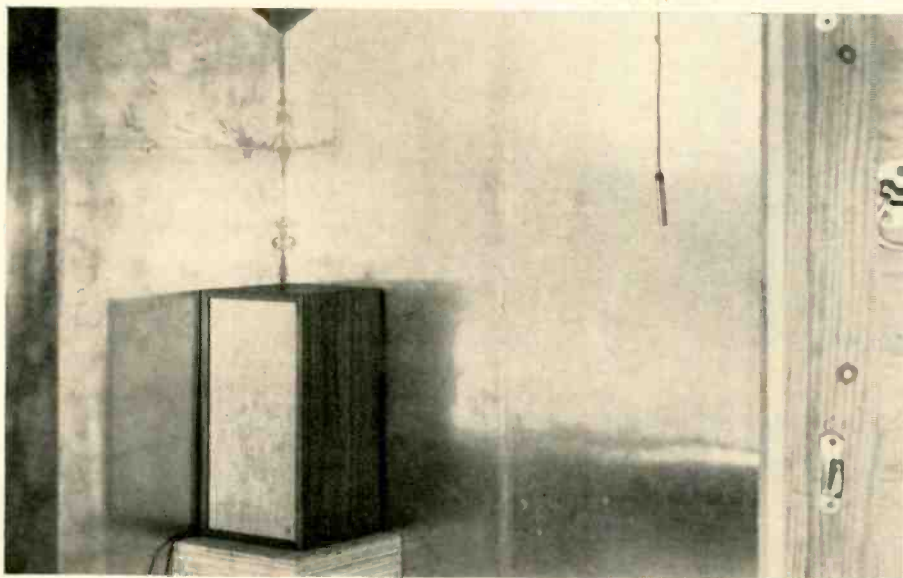


Front view of two W 80's mounted on optional base

CIRCLE NO. 101 ON READER SERVICE CARD

# Acoustic Research has measured the response of more than a million high-fidelity speakers.

Here are some things we have learned about testing.



## Fidelity Means Accuracy

Accuracy distinguishes high-fidelity speaker systems from the speakers in simple radios and phonographs. It is therefore reasonable that evidence of accuracy should take precedence over descriptions of a speaker system's size, shape or theory of design. Acoustic Research offers exact measurement data for all AR speaker systems to all who ask for it: music listeners, audio enthusiasts, science teachers, even competitors.

The accuracy of a speaker system can be evaluated by listening tests or by measurement. Both methods give the same information in different ways.

## Testing for Accuracy

To perform a listening test, an extremely accurate recording must be made and played back alongside the original source of sound. Amplifier and speaker system controls are adjusted to obtain as close a match as possible, and the speaker system judged by the degree of similarity. Acoustic Research has presented public concerts at which the Fine Arts Quartet and other musicians could be compared to recordings played back through AR speaker systems; even seasoned critics were deceived. Obviously, listening tests cannot be made with commercial recordings of music since the listener has no way of knowing which adjustment is most accurately reproducing the recording.

## Objective Measurements

While it is not always convenient to carry out scientifically controlled listening tests, properly conducted measurements can give the same information in permanent, quantitative form. AR knows something about this, having already tested the response of well over a million speakers – every one that we have ever made, and many made by competitors. Our findings are that the most important measurements required to assess the accuracy of a speaker system are (1) frequency response on-axis, (2) frequency response off-axis, (3) integrated power output.

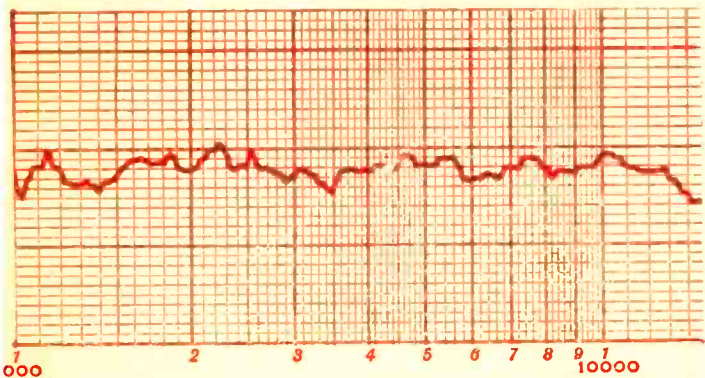
Graph (1) is the frequency response of a midrange driver unit of an AR-3a, on axis. This corresponds to what one would hear outdoors, listening directly in front of the speaker. (2) shows what happens when a listener moves over to one side of the speaker in 15° increments. (3) is the integrated power output of the AR-3a above 1000 Hz, measured in a special reverberant chamber. Reflection from the walls of the chamber mixes together all of the sound emitted by the speaker system in all directions, an effect much more like that of a listening room than the anechoic chamber used for (1) and (2). A speaker system which measured well in both types of chamber would be accurate under almost all listening conditions.

The graphs are made by connecting the speaker system to an oscillator which slowly changes frequency. In the chamber is a microphone connected to a motor-driven pen writing on a moving strip of paper. If the speaker gets louder or softer, the pen moves to one side or another on the paper. Since the oscillator connected to the speaker does not change level as it changes frequency, movements of the pen indicate errors in the accuracy of the speaker system; an ideal speaker, that is, one with no errors, would produce a straight horizontal line.

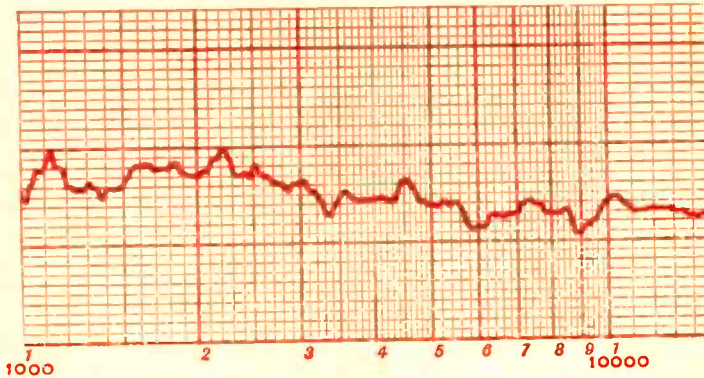
Full AR speaker system specifications are available free upon request. These include: (1) frequency response on axis, (2) frequency response off axis, (3) integrated power output, (4) typical system power output, (5) harmonic distortion, (6) impedance, (7) transient response.

## Integrated power output curves.

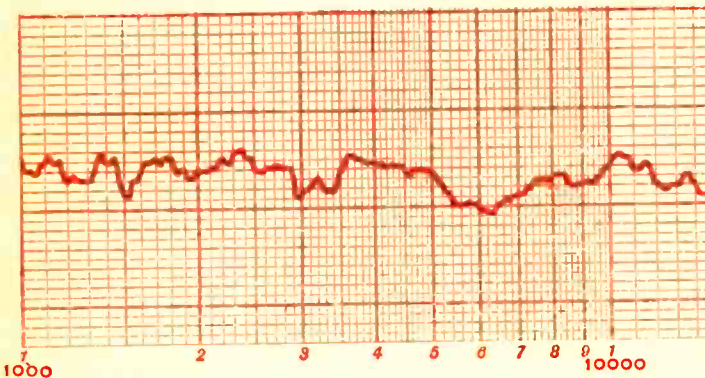
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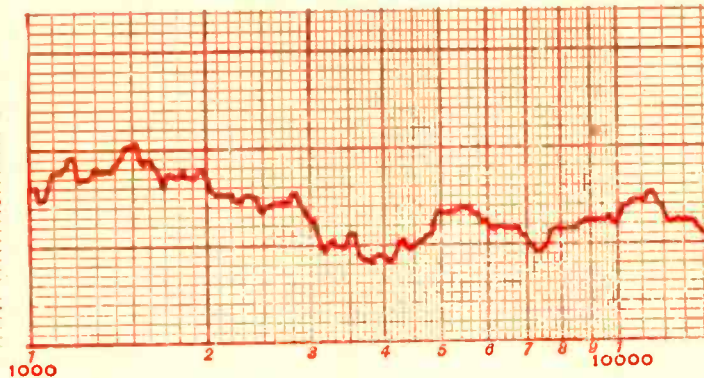
Integrated power output of the AR-3a and AR-5 above 1,000 Hz. The source used in this case was a test oscillator. This curve corresponds to performance of a complete system, with AR-3a or AR-5 speaker systems, when the program source is a properly operating F-M tuner or receiver.



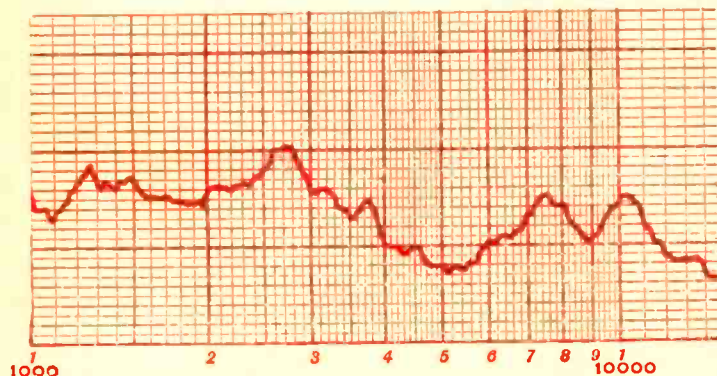
AR-3a and AR-5 with high-priced magnetic cartridge. It is interesting to see that the cartridge introduces somewhat more degradation of the signal than the speaker system, at least in the frequency range observed. Nevertheless, a small adjustment of the amplifier treble control could restore uniformity of response.



AR-2a\* with moderately-priced magnetic cartridge. Although not as accurate as the AR-5 or AR-3a, the AR-2a\* displays the same kind of performance, that is, its integrated power output curve is relatively level. Because its dispersion, especially in the lower midrange, is less uniform, the AR-2a\* is more dependent on optimum placement than the others.



A very expensive speaker system and \$75 cartridge. Even if an equalizer were used to remove the 4,000 Hz "valley" in this system, its roughness would exceed that of the AR-2a\*. The uneven response is caused by mechanical resonances in the loudspeakers used in this system. They are severe enough to be heard from any listening position in a typical room.



A "multi-directional" system and \$75 cartridge. Such systems are designed to take advantage of room reflections to smooth response and create spatial effects.



**Acoustic Research Inc.**

24 Thorndike Street, Cambridge, Mass. 02141

CIRCLE NO. 1 ON READER SERVICE CARD



## LETTERS TO THE EDITOR

### June Cover

● After you devoted so many words to the early Columbia demonstration disc which your staff member purchased with the Mignonphone featured on the June cover, I was surprised to discover that the record on the antique phonograph's turntable is Victor 18688, the Peerless Quartet's rendition of *Swanee*.

My copy of the Columbia disc differs from yours, in that impression number 16949-8-59 appears on side one, while 19104-1-48 appears on side two. Also, my copy boasts patent dates of January 2, 1906, and February 11, 1908, in addition to those found on your copy.

JOE FISCHER  
Indianapolis, Ind.

### Record Cataloging

● Earl Clark ("Storing and Cataloging the Large Record Collection," June) compounds rather than simplifies the problem of indexing and filing records. Where does he file Angel 35658—under Symphonies, for the Beethoven Second, or under Overtures, for the *Coriolan* and *Prometheus*? And Weingartner's transcription of the "Hammerklavier"—under Sonatas or Orchestral? And why go to the trouble of putting all those little numbered and lettered stickers on the records when the spines already carry numbers and titles (except for the earliest LPs)? The truth of the matter is that there is a simpler way. File alphabetically by manufacturer's name, then numerically by manufacturer's number, and make a 3 x 5 card file by composer (and artist, too, if you want to be really thorough) for each composition. Simple enough?

ALAN WARREN  
Philadelphia, Pa.

*The Music Editor comments: "As for me, I'm going back to leaving my records under the couch. 'So save the world by clownish works/From generals and filing clerks.'"*

### A Pirate's Manifesto

● I am a member of the smallest minority of the recording-consuming public, the open-reel tape collector. I have recently dubbed a number of borrowed recordings onto tape because I despaired of ever seeing those recordings on commercial open-reel tape.

Frankly, like many of my friends who

also buy only tapes, I would prefer to buy rather than dub. The packaging and program notes are better on prerecorded tapes than the home collector can do. But the American recording companies have never released many of their albums on tape; in Europe, London and Deutsche Grammophon did for a while, but have now caught the cassette mania. Where does this leave us open-reel diehards? Nowhere. Most of us are working people who have invested a lot of money in sound systems. For that reason the cassette or cartridge does not satisfy us at all. Most of us know that we can get a far better copy by dubbing a new record borrowed from a friend than by buying the cartridge or cassette. So we do it—but reluctantly.

The young should definitely have a chance to buy cassettes, which suit their mode of living and listening much better than any other recording format. However, my group accounts for a small but fairly dependable slice of the market, and should be given more consideration. Without it, we are a lost market so long as it is cheaper and sonically better to borrow and dub ("pirate" if you like).

MICHAEL P. COLE  
San Francisco, Cal.

### Rock and Reason

● What makes Christopher Rouse's letter (May) seem so full of "sweet reason" to the editors? Rock may be of interest to many musicians, but this may not necessarily be a record-collecting or rock-composing type of interest. I doubt there is a single musician in the country who is not interested in rock—but only to the extent that he wants to understand what makes certain people like rock so much, and perhaps through this understanding to be able to bring these people to a more perceptive understanding of and response to classical music.

I too am a student of composition at a great music school. In all my years of study I don't recall ever knowing a student of composition who took equal pride in composing rock or pop music and serious music, unless his serious music was not very good. Some ask, "Why not teach rock in college?" But rock is taught in college: students learn 85 per cent of what underpins rock music when they learn to build the basic structures of triads and seventh chords.

I agree that it should not be necessary to

choose between listening to pop and listening to serious music any more than it should be necessary to give up eating macaroni and cheese because one likes steak. However, though babies can be fed macaroni and cheese, they have to grow up a little before they can digest steak.

JIM WILLIAMS  
New York, N. Y.

*The Editor comments: "To generalize: if there is anything that will equal the contempt rock enthusiasts have for classical music, it is the contempt classical academics have for rock. 'Sweet reason' attempts to give both devils their due (or sympathy, if you will). The enjoyment of one certainly does not depend on the destruction of the other, but entrenched reactionaries on both sides would apparently like us to think so. Rock music is simple music; that does not make it contemptible. Perhaps we'd all be happier if we recognized it for the folk music it is. It will then become the serious concern of ethno-musicologists, and rock fanciers will have won the intellectual respectability they yearn for."*

### Disc Quality

● James Goodfriend makes some very interesting points in his May "Going on Record" column. The need to increase the audience for classical records is pressing. There are few areas of life where being "condemned to the present" (a memorable phrase whose source eludes me) has such stifling results as in that of aesthetic experience. Surely it is depressing to think of the wealth of music people casually deafen themselves to.

But in winning new listeners for this heritage one must not neglect the old. Speaking as one who has recently become a hesitant and occasional buyer of the product after years of rabid and intemperate collecting, and this solely because of the poor quality of disc surfaces, I must insist that the American record companies have no more urgent task than to improve drastically the quality of their finished product.

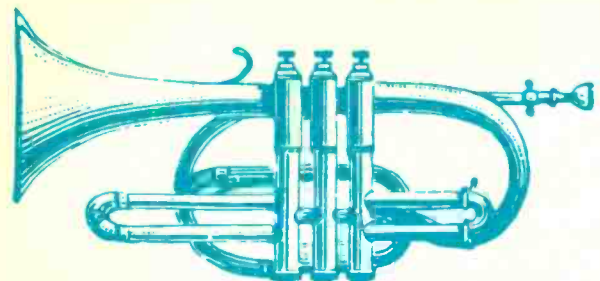
WALTER H. BISHOP  
Atlanta, Ga.

*We thank Mr. Bishop for "condemned to the present"; it is indeed memorable. But is it not just possible that he deserves credit for melting down and recasting Santayana's observation that those who don't know history are condemned to repeat it?*

● I'd like to thank Eric Salzman for the thoughtful and well-written reviews he so regularly turns out. I think—and I mean this—that he is the best reviewer now in the business.

I'd like to thank him particularly for the concern that he shows regarding the sonic quality of recordings nowadays, primarily piano recordings. I agree with him that the piano as it is being recorded today bears scant resemblance to the ones I hear in concert. It is a source of great pain to me and to several of my friends. Yet we know that nothing will be done unless Mr. Salzman, and others like him, bring up the subject. I have just bought the complete set of Beethoven's Beethoven sonatas, and have found the quality of the records execrable.

So thanks again for the good work. Don't  
(Continued on page 12)



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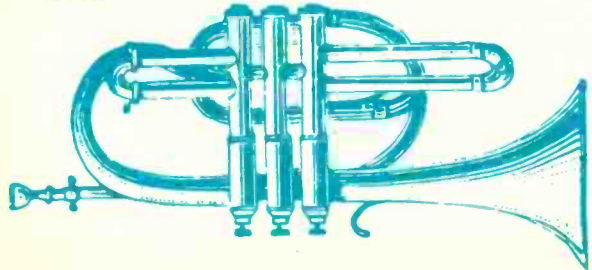
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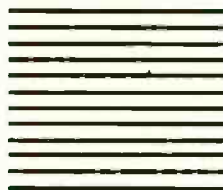
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FROM MASTER TAPE TO DISC: HOW RECORDINGS ARE MADE  
BEETHOVEN'S 32 PIANO SONATAS \* THE VANISHING ART OF  
WHISTLING \* THE COMPOSER-CRITIC: ROBERT SCHUMANN



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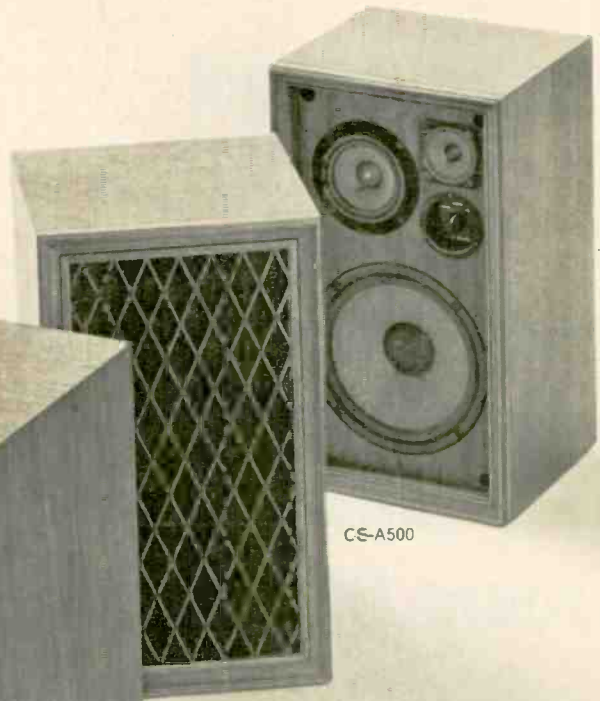
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give up the fight, Mr. Salzman. You are not alone!

M. MOLINA  
Los Angeles, Cal.

## Transliteration

● The Music Editor's rather tart rejoinder to G. M. Kosolapoff's letter in the May issue concerning variant spellings of the name Tchaikovsky makes a valid and interesting point—that the transliteration was into German—but then goes on to confuse the issue.

There is little point in stressing that if Bach, Beethoven, *et al.*, were rendered phonetically into English, they would be spelled differently. Mr. Kosolapoff's letter was concerned with transliteration, and since the mentioned composers' names are originally written in Roman characters, plus some diacritical marks, no question of transliteration arises, and the examples are just red herrings.

The fact is that there are several varying standards for the transliteration of Russian, and a deal of nonstandard practice. The important thing, as the Music Editor points out, is to accept a common practice, however it originated, and stick with it.

CYRIL FLEISHER  
Marietta, Ga.

I found G. M. Kosolapoff's letter about transliteration (May) most interesting. As a part-time translator of Russian mathematical papers, I find the problem of transliteration somewhat bothersome, since there is no universally accepted system. There are, to my knowledge, three currently used: as numbered below, they are (1) that used by the Library of Congress; (2) one used by the American Mathematical Society in its *Mathematical Reviews*, and (3) a German system encountered in the literature. I thought it would be amusing to compare our "common" spellings with consistent transliterations of some Russian composers' names in these systems.

### Common Spelling

Tchaikovsky  
Prokofiev  
Cui  
Stravinsky  
Shostakovich  
Rachmaninoff  
Khachaturian

### (2)

Čaikovskii  
Prokof'ev  
Kyui  
Stravinskii  
Šostakovič  
Rahmaninov  
Hačaturian

### (1)

Chaykovskiy  
Prokof'ev  
Kyui  
Stravinskij  
Shostakovich  
Rakhmaninov  
Khachaturian

### (3)

Tschajkowskij  
Prokof'ev  
Kjui  
Stravinskij  
Schastakovitsch  
Rachmaninov  
Chatschaturian

ROBERT KNAPP  
Stillwater, Okla.

## John Bull

● John Bull may rightly be called, as he was by Igor Kipnis in a May review, the "Horowitz of his day," or even the Grandfather of the Baroque, but he was certainly not a seventeenth-century Richard Burton, as Kipnis suggests. Amorous courtier though he was in his Elizabethan youth, it passes belief that he entered his fifth decade cuckolding swains; more readily believable is that his Catholic recusancy became insupportable to his vacillating royal master,

James I. In an era where respect for art and learning walked hand in hand with violence and repression, it is easy to see that the compromise of exile would be Dr. Bull's most likely lot.

The thought of Dr. Bull will remind many people of A. L. Rowse's "The Old Music School at Oxford" from *The English Spirit*. Picture the scene: "... a magic quiet has descended upon the stilled and sleepy room. Outside, the enchantment of the bells of Oxford in summer has fallen upon the streets and green gardens of the city." The narrator's eye roves the oak-paneled walls. "There is Matthew Locke. He does not seem jealous that I am here, but looks with surprise that he has vanished out of the world. There in the dark of the corner is Orlando Gibbons in his flowered satin gown. In the centre, there is the best portrait of them all: a brilliant Elizabethan picture of John Bull, as bright now as the day it was painted. The portrait says *anno aetatis suae* 27 [in the year] 1589. There he is, as if time had



JOHN BULL (c. 1562-1628)

stayed him at my time of life; had laid a finger upon him, and stilled the tide of the ceaseless unchanging waters; a face long and ridged, auburn hair and candid narrow brow, neat sparse beard and delicate lined lips. But the main feature of the face, the cold grey eyes, full of the awareness of death. He must have charmed his contemporaries and been beloved by them. Dr. Bull exemplified Sir Henry Wotton's ideal of one "Whose passions not his masters are;/ Whose soul is still prepared for death./ Untied unto the world by care/ Of public fame or private breath."

DAVID WILSON  
Carmel, Cal.

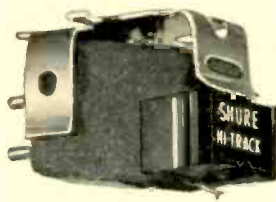
## The Viola

● It was a particular pleasure for me to read Lester Trimble's lucid and comprehensive review of the Walton and Hindemith Viola Concertos (March) as performed by Paul Doktor (*Odyssey* 32 16 0368). His remarks concerning the viola warrant careful consideration.

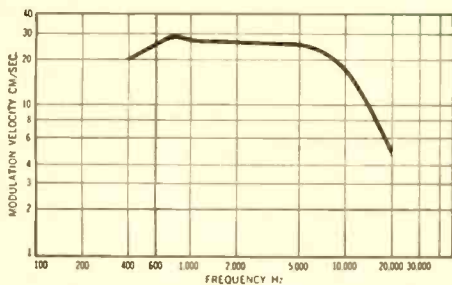
The belief that the viola does not serve well as a solo instrument has been prevalent for some time. The traditional arguments were that because of its size, it was not as technically adept as the violin. But improved technical concepts have shown that there is

(Continued on page 16)



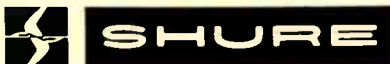


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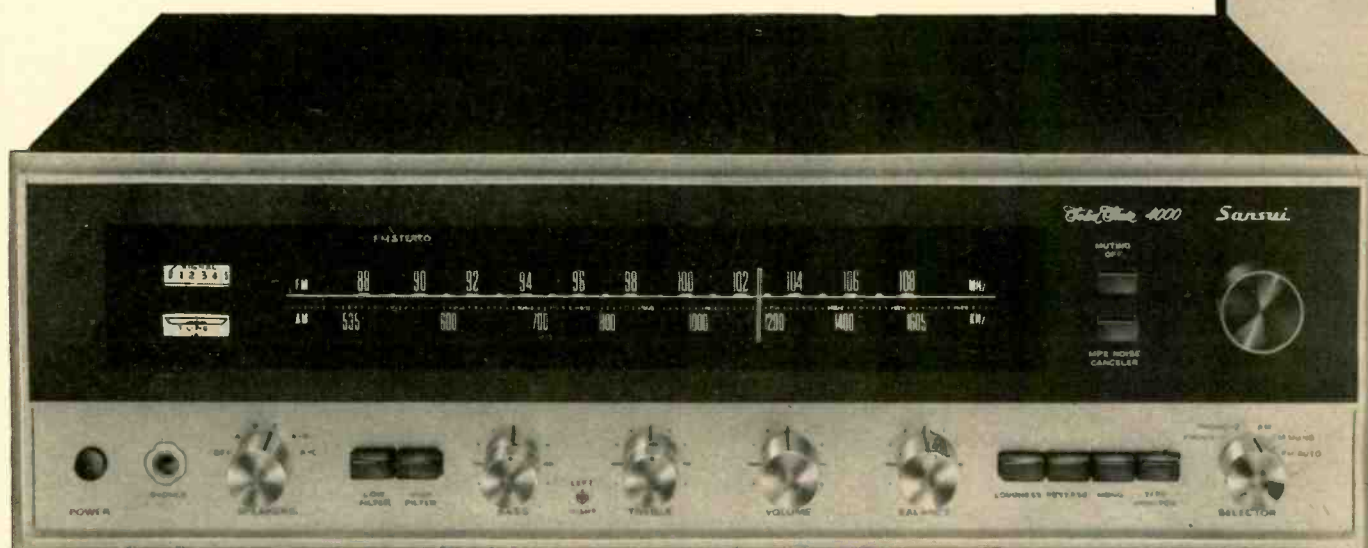


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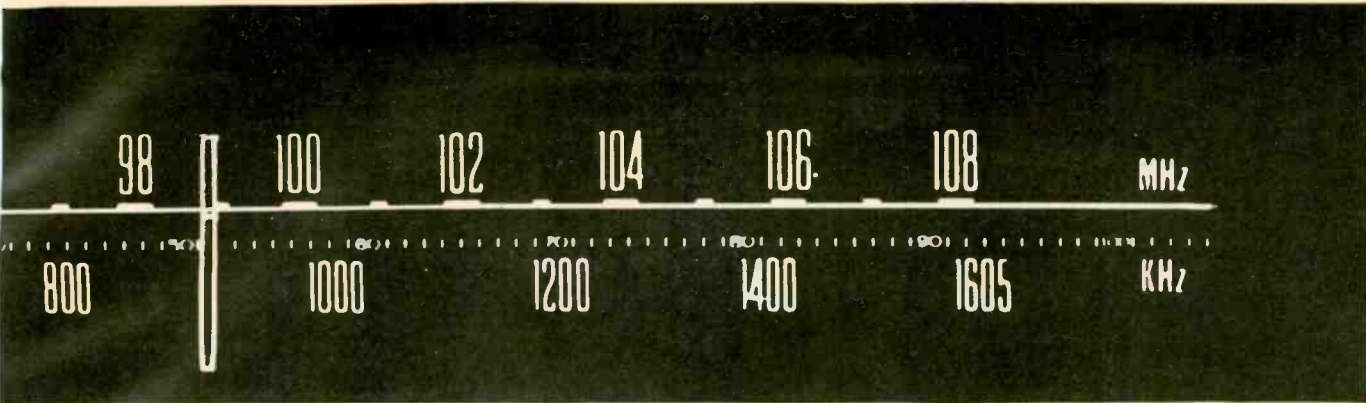
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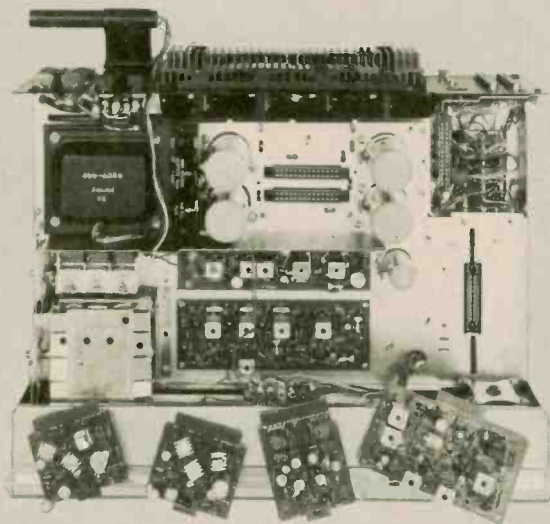
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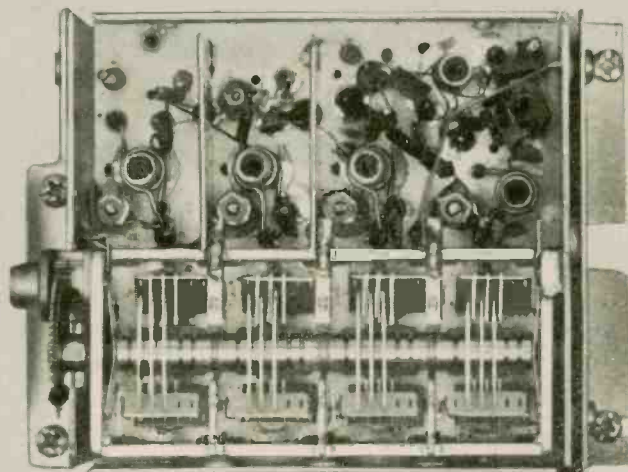
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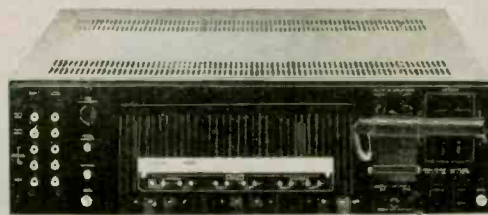
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almost nothing that can be played on the violin that cannot be done on the larger instrument in the hands of a competent violinist. Also, due to its dark, centrally located register, people felt that it lacked the powerful singing quality of the cello and the piercing quality of the violin. The fact is, it takes the best qualities from both, the result being a rich, mellow, and big-sounding instrument whose expressive qualities are limited only by the person who plays it.

LAWRENCE B. WHEELER  
New York, N. Y.

#### The Boozy Muse

● When Arthur S. Forman (Letters to the Editor, May) has partaken of his marvelous Mendelssohn "Scotch" and his Beethoven Fifth, I would like to offer him five fingers (*Les Cinq Drogits*) of Stravinsky to begin with, some very good Spanish champagne from Tomás Victoria's "*Magnum Mysterium*" to celebrate, an exotic dessert—Arthur Benjamin's *Jamaican Rum-ba-ba*, and, as a parting gift, a Beethoven "Waldstein."

M. J. MILLARD  
Vancouver, B.C.

● Another reference to spiritous liquors in music for your list: Alban Berg's concert aria *Der Wein*.

DAN HERZOG  
Waterloo, Ia.

#### Pro-Coppage

● Reading the June STEREO REVIEW, I noticed that Noel Coppage did not have any "pro" letters concerning his article on *The Star-Spangled Banner* (February). So here is one. Another comment was that he should have shown the virtues of the *S-SB*. Are there any?

If they like, the anti-Coppage correspondents may consider me another member of the "cry-baby generation," as Richard F. Oles put it in the June Letters column.

DAVID J. AHEARN  
Norwood, Mass.

● I'm inclined to agree with "Benedict" Coppage that the *S-SB* is obsolete—I could never reach "the rockets' red glare" or the "bombs bursting in air," and I cast my vote for *America the Beautiful*. There have been articles and reviews in STEREO REVIEW that I did not agree with, and many that I have; if you have any more "propaganda," please publish it.

BRUCE TOOTHMAN  
Mannington, W. Va.

#### Klemperer's Siegfried Idyll

● In the March 1970 issue Martin Bookspan mentioned in "The Basic Repertoire" that Klemperer's recording of Wagner's *Siegfried Idyll* was not available on tape. It is available on tape—cassette, that is—as part of "A Wagner Program" by Klemperer (Angel 4XS 35947). The disc version of this cassette does not include the *Siegfried Idyll*. The cassette version is quite good, with very clear and wide-range stereo sound.

RUSSELL LOW  
San Francisco, Cal.

Mr. Bookspan replies: "My thanks to Mr. Low. At the time of writing about the *Siegfried Idyll* for 'The Basic Repertoire,' the Klemperer cassette had not yet become available."

# This is a Plug for High Fidelity's Most Liberal Service Policy:



**If any Scott Modutron printed circuit board ever needs service, we'll replace it . . . free during the two-year warranty period; and for only \$10 thereafter**

Let's face it . . . electronic devices are becoming progressively more complex, and therefore more difficult and costly to repair.

Scott engineers have solved this problem two ways. First, they minimized the need for service through careful selection of parts. Then, they went on to simplify servicing through use of replaceable Modutron circuit boards.

#### **WHAT'S A MODUTRON CIRCUIT BOARD?**

All major Scott electronic circuits are modularized on separate plug-in printed circuit boards. Each board plugs into place on the chassis. This means that a failure in any major circuit can be repaired instantly by plugging in a replacement board. Scott's new Modutron service policy allows replacement of any plug-in printed circuit board at deliberately low cost . . . no matter how long you've owned your unit!

#### **HOW DOES THE MODUTRON EXCHANGE POLICY WORK?**

If your Modutron unit ever needs servicing, here's all you do:

Take or ship your component to a Scott Warranty Service Station.

Your unit will be electronically tested and the problem isolated.

The warranty station will exchange the defective board for a perfect one right from stock, or contact Scott for air shipment.

Service is faster than ever before, and you pay only a nominal amount for trouble-shooting, any necessary alignment, and the standardized \$10 exchange cost (or the equivalent in 1970 purchasing power) of a perfect factory-rebuilt Modutron circuit board, providing there has been no physical damage to the original board.

#### **HOW DOES THIS AFFECT MY WARRANTY?**

The Modutron exchange policy is a supplement to Scott's regular Two-Year warranty. During the first two years of ownership, there is no charge for either parts or labor costs. The Modutron exchange policy is additional protection . . . assuring you of continued service at minimal cost no matter how long you keep your Scott unit. Scott is proud of its long-standing policy of servic-

ing its products regardless of age. Even today, Scott owners can bring in amplifiers they bought in 1947, Scott's first year of production, and receive prompt, complete service.

#### **SCOTT AUDIO COMPONENT, LOUDSPEAKER SYSTEM, AND STEREO MUSIC SYSTEM WARRANTY**

All H.H. Scott professional quality tuners, amplifiers, receivers, compact stereo music systems, and loudspeaker systems are warranted against defects in material and workmanship for two years from the date of sale to the consumer. The unit must be delivered to and picked up from either an authorized Scott warranty service station or the Customer Service Department, H.H. Scott, Inc., 117 Powdermill Road, Maynard, Massachusetts 01754.

This warranty covers repair and/or replacement of any part found by the manufacturer, or his agent, to be defective, including any associated labor cost.

The above warranty does not apply to (1) accessory parts explicitly covered by the field warranty of an original manufacturer (2) units subjected to accidental damage or misuse in violation of instructions; (3) normal wear and tear; (4) units repaired or altered by other than authorized service agencies; and (5) units with removed or defaced serial number.

#### **HOW WILL THIS AFFECT FUTURE SERVICE COSTS?**

The 1970 CONSUMERS GUIDE published by BUYERS GUIDE magazine says . . . "as for out-of warranty repairs, modular circuit design can cut service bills by 40-80% compared to what it costs to have a non-modular receiver repaired."

#### **WHAT SCOTT UNITS ARE COVERED?**

Most of Scott's new receivers, plus all Scott components presently under development, incorporate Modutron construction. Included are the 342C FM stereo receiver, the 382C AM/FM stereo receiver, the 386 high-power AM/FM stereo receiver, and the Scott 2506 compact stereo systems.

## **SCOTT®**

H. H. Scott, Inc.

111 Powdermill Road, Maynard, Mass. 01754

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# NEW PRODUCTS

A ROUNDUP OF THE LATEST HIGH-FIDELITY EQUIPMENT



● **IMF** is marketing the Studio speaker system, a four-way design with a frequency response of 30 to 20,000 Hz  $\pm 3$  dB. The 10-inch woofer and the 4-inch mid-range units have laminated plastic cones. Their rear radiations are directed into "transmission lines"—separate acoustical paths within the enclosure that are filled with materials of various densities and sound-absorbing characteristics. High frequencies are handled by a 2½-inch tweeter and a ¾-inch super tweeter. Crossover points are at 750, 3,500, and 13,000 Hz. Separate level controls for the mid-range and high-frequency units vary their outputs over a  $\pm 2$ -dB range in 1-dB steps. The nominal impedance of the Studio speaker system is 8 ohms; it is recommended for use with amplifiers capable of at least 25 watts output per channel. Available in teak or walnut finish and weighing 70 pounds, the system measures 35½ x 15 x 14 inches. Price: \$300.

Circle 143 on reader service card

● **Nortronics** has made available a free leaflet (No. 7260) describing visual, tactile, and aural tests for determining if the heads of a tape recorder are worn. A labeled diagram illustrates the kinds of wear that can be expected after a machine has been in use for some time. A chart showing expected head life for various conditions of operation is included.

Circle 144 on reader service card

● **Advent** has introduced its Model 200 stereo cassette deck, incorporating "B-type" Dolby noise-reduction circuits that achieve a 10-dB improvement in signal-to-noise ratio over conventional units. The Dolby circuits are switched in or out by one of the ten piano-type push keys located on the front edge of the deck's top panel. An indicator light shows when the Dolby circuits are in use. Another push key changes the recording bias and playback equalization



so that the deck can be properly set up for the currently available low-noise cassettes and for the chromium dioxide formulations to be available in the future. The eight remaining push keys select mono or stereo input, power on/off, and control the transport functions. At the end of a cassette the transport motor automatically shuts off.

When used with low-noise, high-output cassettes, the Model 200 has a frequency response of approximately 30 to 14,000 Hz. Wow and flutter are 0.15 per cent. The deck has a single large recording-level meter that responds to the channel with the higher signal level at any given moment; it can also be switched to read the level of either channel alone. There are separate recording-level controls for each channel, a single playback-level control, and a

headphone jack. Calibration controls at the rear of the deck permit adjustment for prerecorded Dolbyized cassettes. The Model 200 measures 14¾ x 10⅝ x 3¾ inches, weighs 14 pounds, and comes on a walnut-finish base.

Circle 145 on reader service card



● **RCA** is marketing four simple audio electronic kits. Each is battery operated and includes an integrated circuit (IC) along with other circuit components. The kits are: a microphone preamplifier (KC4000), a two-channel mixer (KC4001), an audio oscillator (KC4002), and an oscillator-amplifier (KC4003, shown) which has a rated power output of ½ watt. Packed in a transparent plastic case for rack display, each kit contains circuit components, predrilled printed-circuit boards, and instructions. A soldering iron and hand tools are needed for assembly. Also available is a kit enclosure and hardware pack (KC4500) that consists of a plastic case with input and output jacks and on/off switch for housing kits KC4000, KC4001, or KC4002. Associated hardware is included. Suggested retail prices of the kits range from \$4.95 to \$8.95.

Circle 146 on reader service card



● **David Clark** has redesigned their Clark/100 series of stereo headphones, adding three new models with different nominal impedances. The phones use dynamic transducers with Mylar cones and ceramic magnets, and can handle inputs of up to one watt continuous power. Sensitivity at 1,000 Hz is 105 dB with an input of one milliwatt. Frequency response is 20 to 16,000 Hz. The phones have adjustable earpieces, foam-padded headbands and ear cushions, and come with a 9-foot coiled cable terminating in a standard three-connector phone plug. Prices: 100A (17 ohms), \$50; 103A (300 ohms) \$50; 106A (600 ohms), \$55.

Circle 147 on reader service card

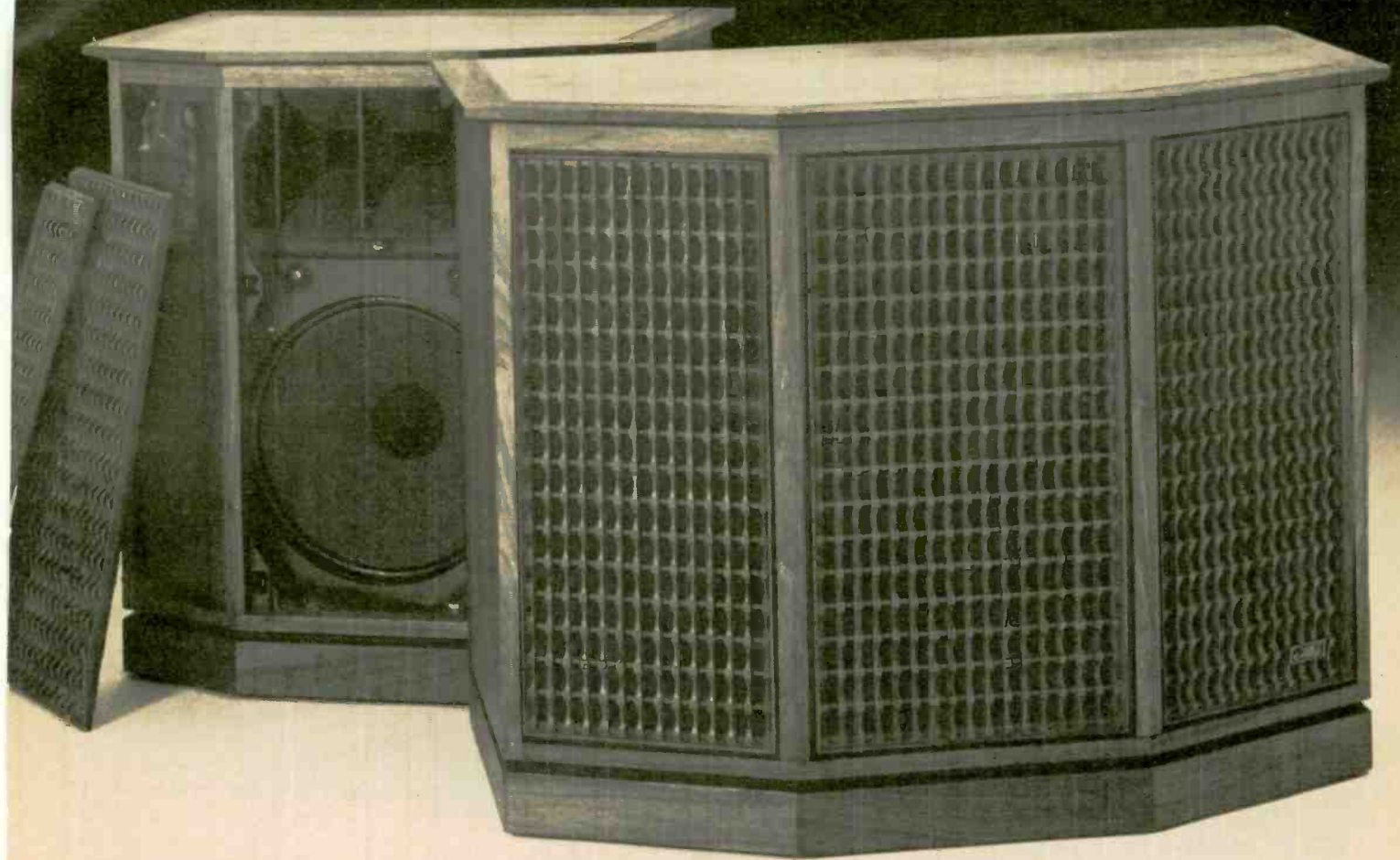
● **Marantz's** new Model 23 AM/stereo FM tuner has a signal-strength tuning meter and a channel-center tuning meter that can be switched to indicate multipath, enabling the user to orient his antenna for minimum distortion. The front-panel mode selector has positions for AM, stereo and mono FM, and high-frequency blend. The threshold of the



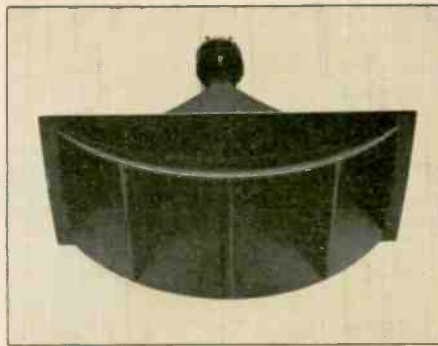
switchable interstation-noise muting function can be adjusted by means of a control on the rear panel. There is also an output-level control. The Model 23 has an FM sensitivity of better than 2.4 microvolts and a capture ratio of 2.5 dB. FM frequency response is  $\pm 1$  dB from 20 to 15,000 Hz. Selectivity is 80 dB, image rejection is better than 78 dB, and harmonic distortion is 0.5 per cent in the stereo mode. The stereo separation is 40 dB at 1,000 Hz. Termi-

(Continued on page 20)

# Altec's new Dynamic Force Systems. They're built a little better.



With a new 15-inch Dynamic Force woofer for better reproduction of low frequencies. Both Altec's new Barcelona and Granada speaker systems incorporate this all-new woofer. It features a long voice coil with edge wound, pre-flattened copper wire and a magnetic structure of extremely high flux field. Working together in our infinite baffle enclosure, this speaker is capable of producing a Dynamic Force against the compressed air in the cabinet of up to 16 psi. This greatly improves low frequency transient performance, extends low-end response and reduces distortion while maintaining medium efficiency.



With a large sectoral horn for better controlled angular distribution of mids and highs. This exclusive horn enables the new Barcelona and Granada to keep the off-axis frequency responses of mids and highs almost identical to the on-axis responses—even in the critical mid range (above 500 Hz) where most low frequency speakers have a narrow angle of distribution. This large sectoral horn also helps extend the direct field which is where you hear the original acoustics of the recording rather than the acoustics of your listening room.



With more hand-sanding and hand-finishing for finer cabinetry. The hand-rubbed natural walnut cabinets of Altec's new Barcelona and Granada feature an infinite baffle design inside the enclosure with snap-on fretwork grilles outside. To ensure both quality and beauty, these pieces of fine furniture have been individually hand-sanded probably more than any other speaker cabinets on the market today.

Altec's new Barcelona (873A) sells for \$550.00. Altec's new Granada (875A) sells for \$450.00. Write for our complete, new catalog. Altec Lansing, 1515 South Manchester Ave., Anaheim, Calif. 92803.

Built a little better.



A QUALITY COMPANY OF LTV LING ALTEC, INC.

# NEW PRODUCTS

## A ROUNDUP OF THE LATEST HIGH-FIDELITY EQUIPMENT

nals for both 300- and 75-ohm antenna lead-in are provided. The AM section of the Model 23 has a sensitivity of better than 11 microvolts. There is a built-in ferrite-bar antenna as well as terminals for an external antenna. The dimensions of the Model 23 are  $15\frac{3}{8} \times 5\frac{3}{4} \times 12\frac{1}{2}$  inches. Price: \$259. An oiled walnut cabinet costs \$32.50.

*Circle 148 on reader service card*

● **Rabco** has modified their SL-8 radially tracking tone arm so that the arm is lowered and raised by a motor-driven mechanical linkage. (In the previous model the arm was lowered by hand against spring tension until it locked into the playing position, and was raised by the spring at



the end of a record or when a lever on the arm carriage was depressed.) The new model, which can be distinguished by the characters "SL-8E" on its nameplate, has a cam wheel adjacent to its battery-powered lift motor. Depressing a yellow lever on the arm carriage causes the wheel to rotate 180 degrees, thereby lowering or raising the arm in about seven seconds. The raising mechanism is also automatically tripped at the end of a record. Price of the SL-8E: \$169.50. Older Rabco arms can be converted to SL-8E's for \$30 if returned to the manufacturer.

*Circle 149 on reader service card*

● **Sansui's** new 5000A AM/stereo FM receiver has a frequency response of 10 to 50,000 Hz and a continuous power output of 55 watts per channel into 8-ohm loads. The power bandwidth is 15 to 30,000 Hz. Harmonic distortion is 0.8 per cent, and IM distortion is under 0.8 per cent. Hum and noise are below -65 dB at the phono input and -80 dB at the high-level inputs. The FM section has a sensitivity of 1.8 microvolts, greater than 50 dB selectivity, and a stereo separation of 35 dB. Besides the



usual volume, balance, and tone controls (separate bass and treble for each channel), the Sansui 5000A has a speaker-selector switch with positions for one pair of main speakers and two pairs of remote speakers, as well as combinations of either remote pair with the main pair.

Loudness, FM interstation-noise muting, mode, and high- and low-cut filters are switched through pushbuttons, as are a stereo-FM-only function and two tape-monitor facilities, one of which is connected to a second set of tape input and output jacks on the front panel. The input selec-

tor can be set for tape head, phono, AM, FM, FM-auto, or auxiliary inputs. There are tuning meters for FM signal strength and channel center, and a front-panel headphone jack. The rear-panel facilities include spring-loaded speaker terminals, 300- and 75-ohm FM-antenna inputs with a local/distant switch, an interstation-noise-muting threshold control, and a ferrite-bar AM antenna. The output transistors of the amplifier section are protected both by fuses and power-limiting circuits. A front-panel indicator lamp lights when the latter are acting. The Sansui 5000A measures  $17\frac{1}{4} \times 4\frac{7}{8} \times 14\frac{1}{2}$  inches. Price: \$449.95. An optional walnut cabinet costs \$22.50.

*Circle 150 on reader service card*

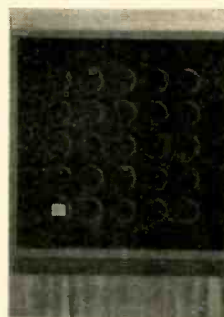
● **Pioneer** has made available a free 28-page color catalog illustrating and describing its current line of audio products for home use. Among the components featured are stereo receivers, integrated amplifiers, preamplifiers, power amplifiers, tuners, speaker systems, headphones, and the Pioneer turntable and tape deck. Brief specifications are given for each item, as well as suggested retail prices.

*Circle 151 on reader service card*



● **Magnesonic's** Erasette 200B cassette tape degausser, said to be more effective than the erase facilities of cassette recorders in removing recorded signals and noise. The Erasette, which is  $4 \times 3\frac{1}{2} \times 2\frac{3}{4}$  inches, is powered by four AA cells. The cassette, its reels locked in position by a detachable holder, is passed slowly across the upper surface of the Erasette while a pushbutton at its upper left corner is depressed. The cassette will be erased to a noise level of 65 dB below 0 VU. Suggested retail price of the Erasette 200B: \$15.95.

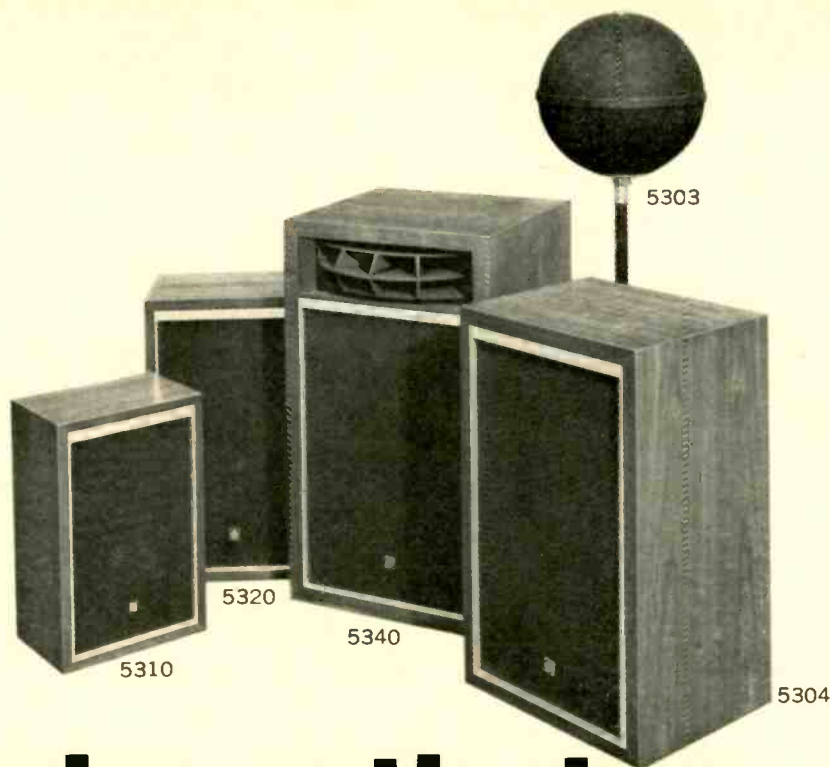
*Circle 152 on reader service card*



● **James B. Lansing** has introduced their Aquarius line of speaker systems, comprising four models in various price, size, and styling categories. The Aquarius 1 (shown) is a three-way, 8-ohm system that employs diffraction slots in front of the drivers for dispersion. The 10-inch woofer, 5-inch mid-range, and 2-inch tweeter are driven through a crossover network that provides for considerable overlap in the frequencies handled by each. Frequency-band assignments are: woofer, below 1,000 Hz; mid-range speaker, 300 to 8,000 Hz; tweeter, above 3,000 Hz. The manufacturer recommends that amplifiers with power of at least 15 watts per channel continuous be used with the system (power-handling capability is 40 watts of program material). The Aquarius 1 has a black contour-molded grille and comes finished in white or oiled walnut. Its dimensions are  $20 \times 20 \times 13\frac{1}{2}$  inches. Price: \$288; the optional base shown is \$27 extra. Other models in the Aquarius line use various diffracting and reflecting mechanisms to achieve diffusion throughout the listening room without dependence on wall or ceiling surfaces.

*Circle 153 on reader service card*





# Speakers that speak for themselves from JVC

Hook 'em up and give a listen. They'll not only speak for themselves, they'll have something to say about the condition of your records and the quality of your stereo system.

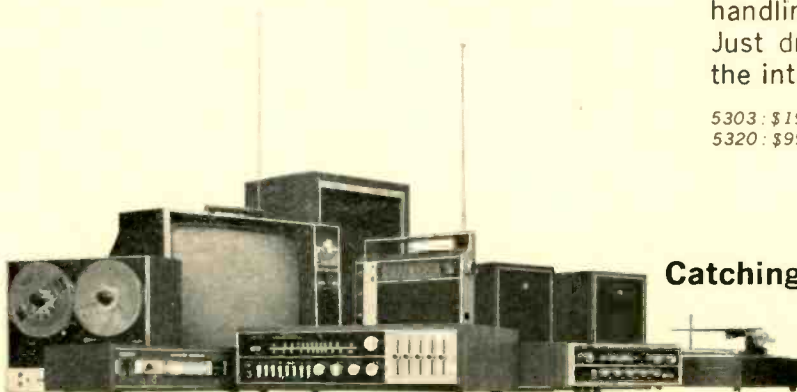
And with JVC's 5303 omni-directional system, the message will be delivered with full stereo effect anywhere in the room. All 'round

features: four free edge woofers and four horn-type tweeters to handle up to 80 watts input from 20 to 20,000Hz. Gives you a full 360 degrees of sound diffusion. Just listen.

Check the other JVC systems, too. Models 5340 and 5304, powerful 4-way systems with multi-channel inputs. Handle 40 watts RMS and 80 watts peak. The 30 watt 5320 and 25 watt 5310 3-way book-shelf systems also deliver full range JVC-quality sound.

Get more information about JVC speakers and the name of the dealer handling JVC products in your area. Just drop us a line and we'll make the introduction.

5303 : \$199.95, 5304 : \$149.95, 5310 : \$69.95,  
5320 : \$99.95, 5340 : \$229.95.



Catching On Fast

# JVC

JVC America, Inc., 50-35, 56th Road, Maspeth, New York, N.Y. 11378 A Subsidiary of Victor Company of Japan, Limited, Tokyo, Japan  
CIRCLE NO. 21 ON READER SERVICE CARD



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Giant 180 page buyer's guide listing more than 1,600 individual Stereo/Hi-Fi components by 176 manufacturers. Nine individual sections complete with specs, photos, prices—the works!

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For Profit... For Sheer  
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Over 130 pages covering every aspect of tape recording. Complete buyer's guide to the brands and models on the market. Expert tips on equipment — making better tapes — editing — copying — everything you want and need to know about tape recording.



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148 fact packed pages for the CB, SWL or HAM. Equipment buyer's guide — photos — tables — charts — getting a license — everything to make this the world's most complete guide to communications.



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Please send me the annuals I've checked below:

- 1970 Electronic Experimenter's Handbook - Winter
- 1970 Electronic Experimenter's Handbook - Spring
- 1970 Stereo/Hi-Fi Directory
- 1970 Tape Recorder Annual
- 1970 Communications Handbook
- 1970 Elect. Installation & Servicing Handbook

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PAYMENT MUST BE ENCLOSED WITH ORDER



By LARRY KLEIN

## AUDIO QUESTIONS & ANSWERS

### Speakers for Rock

**Q.** I have a highly rated acoustic-suspension speaker system driven by a fairly expensive 100-watt receiver. My major musical interest is in rock and roll, and I find that my system simply does not give me the sound quality I feel it should. When I play my records and contrast them with the live performances by the same groups, I find that although the records have greater clarity, all the "sock" or "impact" is lost. I am becoming convinced that I need larger speakers (of the kind used by rock groups) and a more powerful amplifier in order to get the kind of sound that I want. Am I on the right track?

CHARLES LOSSER  
San Francisco, Calif.

**A.** Yes and no. There are several different things involved here that help confuse the issue. Theoretically, what we want from any record-playback system is accurate reproduction. In other words, what we want it to do is give us what is on the record, neither more nor less. On the other hand, a speaker connected to a music-instrument amplifier is operating in a situation where anything it does is okay as long as it manages to hold together physically and create the kind of sonic effect the musician wants. In other words, the music-instrument amplifier and speaker are sound producers; the home hi-fi system is a sound reproducer.

Now let's look at the question of sonic impact. This quality, which I almost always hear at live rock performances and which can frequently be heard at discotheques, is probably mostly concentrated in the bass frequencies somewhere below perhaps 100 Hz. But because of the way the human ear works (the Fletcher-Munson effect), it comes through only when the sound is very loud. Your "100-watt" receiver, I suspect, simply does not have enough reserve power to drive your low-efficiency acoustic-suspension speakers to the high bass volume that you want. What happens is that the amplifier goes into overdrive distortion (clipping) on the bass peaks, and hence does not deliver real bass fundamentals but rather the upper har-

monics (over 100 Hz), which may sound like bass, but have a "flabby," as opposed to "solid," quality. You can check this hypothesis by substituting another amplifier with a true 60-watt-per-channel or higher rating and see if it makes the difference.

Another possibility is that you simply don't play your records loud enough to create the subjective effect you want. I know that if I tried to approach in my apartment the sound-pressure levels I hear at live rock concerts, I would have the neighbors within a radius of several floors phoning the fuzz.

A third possibility, though an unlikely one, is that your speakers simply aren't up to the job of playing at the levels you desire. So perhaps "larger speakers," either horns or bass-reflex types, might be the answer for you. But stay away from speakers designed specifically for music-instrument use. They just don't have the clarity and the frequency range (particularly with respect to the high frequencies) required for good reproduction of any kind of music.

### Matched Speakers

**Q.** Though I realize that most audiophiles prefer to use matched speakers in their stereo systems, I have been told that room acoustics can vary so much from point to point that the differences between many brands of high-quality speakers are negligible by comparison. I have also heard that, with speakers of lesser quality, unmatched speakers can sometimes make up for each other's inadequacies.

ALLEN GOODMAN  
New York, N.Y.

**A.** What you have been told about room acoustics and the differences between many high-quality speakers is true. People who have heard the same speaker either in different rooms or in different parts of the same room are frequently astonished by the differences in tonal balance. In regard to the second part of your question, I cannot conceive of a circumstance where it would really be advantageous to buy

(Continued on page 24)

# The new Sony savings plan: \$134.95

**A Really Spectacular Buy.** The new solid-state stereophonic Sony model 252-D is loaded with exciting quality features including sound-with-sound! Handsomely mounted in a low profile walnut wood cabinet. Here is the most tape deck recorder for the money. And it's a Sony!

**Scrape Flutter Filter.** Special precision idler mechanism located between erase and record/playback heads eliminates tape modulation distortion. This feature formerly found only on professional studio equipment.

**Sound-with-Sound.** A versatile feature that enables you to record on one channel while listening to the other. Ideal for learning or teaching foreign languages as well as perfecting diction, singing and instrumental music.

**Vibration-Free Motor.** An important new Sony development utilizing "floating" shock absorber action to isolate completely any motor vibration from the tape mechanism.

**Four-Track Stereophonic and Monophonic Recording and Playback.** Seven-inch reel capacity provides hours and hours of stereo enjoyment. Stereo headphone jack for private listening. Automatic sentinel shut-off. Two VU meters. Pause control. Three-digit tape counter. Record interlock. Separate record selector buttons. Vertical or horizontal operation.

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**Instant Tape Threading.** Exclusive Sony Retractable pinch roller permits simple one-hand tape threading. An automatic tape lifter protects heads from wear during fast forward and rewind.



**Sony Model 252-D.** Just \$134.95! For your free copy of our latest tape recorder catalog, please write to Mr. Phillips, Sony/Superscope, Inc., 8144 Vineland Avenue, Sun Valley, California 91352.

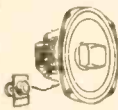
**SONY SUPERSCOPE** The Tape Deck to Stereo

You never heard it so good.

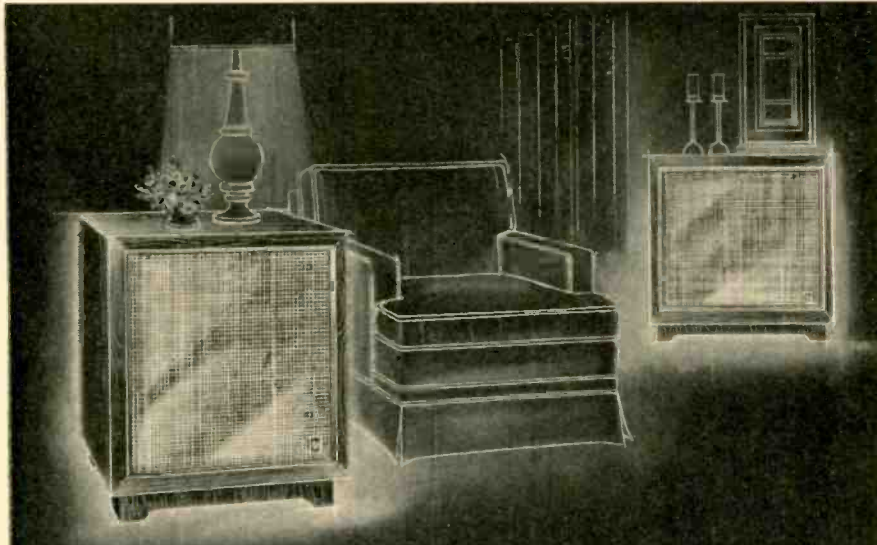
*In 1948, University Sound  
made home high fidelity possible.*

*In 1970, we made it perfect.*

In 1948 University unveiled the world's first popularly priced, full fidelity speaker—the 6201—and home high fidelity was born.



In 1970 University unveils the finest, fullest line of high fidelity products in the world—and home high fidelity is finally perfected.



### THE VEGAS

Twice as big as a good-sized bookshelf speaker. With four times the sound. For about the same kind of money. 15" woofer and large enclosure mean the biggest, sharpest bass you've ever heard—regardless of price. Specifications: Free-standing, three-way speaker system

■ Frequency Response: 25-20,000 Hz ■ Power Handling Capacity: 35 watts IPM ■ Impedance: 8 ohms ■ Components: University M-15T, 15" three-way full-range speaker ■ Controls: Continuously variable brilliance control recessed in back ■ Finish: oiled walnut ■ Dimensions: 23" x 24" (W) x 15" (D) ■ Walnut base optional



PROJECT M



EL PASO



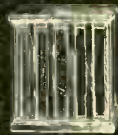
LAREDO



ULTRA D



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PRESIDIO



**UNIVERSITY SOUND:** the finest, most complete line of high fidelity speaker systems in the world from the world's leading manufacturer of electroacoustic products.

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unmatched speakers. The argument for doing so usually goes: "If you have one speaker that has a lot of mid-range and treble but no bass, it should be matched by a speaker with a lot of bass and no mid-range and treble." But a little thought will show you that your best choice would be two speakers with as wide a frequency range as possible. You would be better off trying to make corrections with tone controls and the tweeter/mid-range level controls on the backs of the speakers than trying to buy speaker systems that have complementary irregularities.

My experience has been that it is far more important to match the upper-end response of systems than their bass-reproduction characteristics. Whereas bass below about 250 Hz is nondirectional, the upper frequencies are directional, and if, for example, you have a left-channel speaker with a strong high-frequency peak and a relatively smooth right-channel speaker, there will tend to be a shift of stereo perspective when music embodying the frequency of the peak is played. The same holds true in respect to dispersion. It would be a good idea to get speakers whose high-frequency dispersion characteristics are relatively similar; otherwise, the loss of high frequencies in some areas may result in an unstable stereo image.

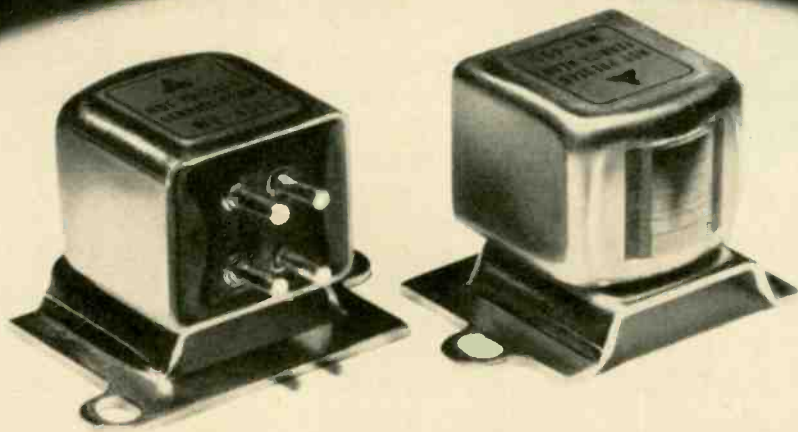
### Multiplex Adapters

**Q.** I own an old Pilot receiver that is equipped with a multiplex jack. But I neglected to buy the Pilot multiplexer that adapts the unit for stereo FM reception. I now find that Pilot has gone out of business. Do you know where I could obtain an adapter for this unit?

HARRY F. SCHUTE  
Willow Grove, Pa.

**A.** For several reasons, I would suggest that you look into the possibility of buying a new stereo tuner, rather than a stereo adapter for your old one. Most mono tuners were not designed to have the phase linearity, or the bandwidth, that is required for adequate stereo reception. While it is possible to connect a multiplex adapter to almost any older mono tuner, the results, in regard to distortion and separation, will almost surely not be up to the standards of even the inexpensive modern stereo tuners. In addition, to get the best from the adapter, it should be adjusted to the specific tuner that it is being used with, which in turn should be freshly aligned. You can see how the cost of alignment plus the cost of the adapter starts to approach the cost of one of the inexpensive new stereo tuners. And there is a good chance that a new stereo solid-state tuner will outperform—in almost every area—an older mono tube job that in its day cost perhaps twice as much.

# WARNING: The guarantee on these tape heads is due to expire in 1995




The newly developed pressure-sintered ferrite record and playback heads in the Concord Mark III tape deck carry a 25 year guarantee. These diamond-hard heads maintain their original high standard of performance longer than any others. There's no significant headwear, no deterioration in frequency response or signal-to-noise ratio — even under conditions of constant use.

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scrape, cogging action. Consider these capabilities — sound-on-sound, variable echo, cue/pause control, independent record-indicator lights for each channel, and two calibrated VU meters. The Mark III, under \$250. The Mark II, under \$200 is similar to the Mark III except that it has ferrite erase head and high-Mu laminated recording and playback heads.

The top-of-the-line Mark IV has all of the performance quality and convenience of the Mark III plus dual capstan electronic automatic reverse and continuous play, no metal foil of signal required on the tape. Under \$300.

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By HANS H. FANTEL



## AUDIO BASICS

### THE EAR

THE basic phenomena of sound, some of which I have been exploring in this column lately, are experienced by each of us individually through a mechanism that is by far the most intricate and ingenious of all "audio components"—the human ear.

As far back as the Renaissance, simple anatomic dissection had made it quite evident how sound vibrations travel through the mechanism of the ear: from the ear drum, through a linkage of three small bones in the middle ear, to a flexible oval membrane that affects the fluid in a spiral chamber called the cochlea, the main organ of the inner ear. Early anatomists could also see that the cochlea was connected to the brain by a large bundle of nerves. But the function of these parts did not become clear until the beginning of experimental research in the physiology of hearing, pioneered by Helmholtz in Germany roughly a hundred years ago. Even today, however, many aspects of audition still remain the subject of debate and speculation.

After the invention of the telephone and the discovery that nerves carry messages in the form of electric impulses, it was readily assumed that the ear works more or less like a microphone, converting sound vibrations into corresponding electrical signals which are then transmitted to the brain through the auditory nerves. On further investigation, however, this elegantly simple theory turned out to be far too simple. For one thing, nerves don't work like wires; they cannot carry a continuous electrical signal. Instead, they fire off a series of separate pulses at certain intervals, no faster than about 500 per second. How, then, can an audio signal of many thousands of cycles per second be transmitted over the auditory nerves?

The answer, at least in part, was found in the early Thirties by a Hungarian researcher named Georg von Békésy, who discovered that different areas of the cochlea—the spiral tube of the inner ear—respond to different frequencies. By tracing the nerves from different cochlear areas, he also found that they connect to correspondingly different locations in the brain. He concluded that we perceive pitch according to the places in the ear and the brain stimulated by a particular frequency.

The "place theory," however, could not account for some observable facts of hearing—notably the ability of the ear to reconstruct the fundamental frequency of a tone from its harmonics alone. This is the factor that gives us the illusion of hearing bass notes even from a small radio that does not actually reproduce these low frequencies. Thus the ear and brain "hear" frequencies even if their corresponding places of stimulation are not really being actuated. Consequently, some factor besides place of stimulation must be involved. According to the so-called "volley" theory, the brain "counts" the nerve impulses from various locations of the cochlea and interprets the pulse count as pitch and timbre. Just what sort of unconscious computation is performed by the brain is still a mystery, but a combination of localized stimulation and pulse counting may be the basic mechanism of pitch perception.

# CAN YOU GUESS

WHICH FACTOR IS MOST RESPONSIBLE FOR THE LEADING POSITION OF THE BOSE 901 DIRECT/REFLECTING™ SPEAKER SYSTEM?

IS IT:

## 1 The Rave Reviews?

(Circle the number at the bottom of this page on your reader service card for complete reprints of the seven reviews and a list of BOSE dealers in your area.)

## 2 The 12 Years of Research? — research that went

beyond the collection of graphs and numerical data into the basic problems of correlating the perception of music with speaker design parameters.

(Copies of the Audio Engineering Society paper 'ON THE DESIGN, MEASUREMENT AND EVALUATION OF LOUDSPEAKERS', by Dr. A. G. Bose, are available from BOSE Corp. for fifty cents.)

## 3 The Sound of Music Through the 901?

(Enjoy it at your nearest BOSE dealer or in the more comfortable surroundings of your friend's home.)

## THE ANSWER:

(AS INDICATED BY CUSTOMER SURVEYS)

The research made it all possible and the rave reviews cause people to listen to the BOSE 901. BUT, the surveys show that the sound of the 901 is, by far, the major reason that owners of large and small speakers trade for the 901 and that newcomers to stereo select the 901. That's how it should be — you are not buying reviews or research the relevance of which rests completely upon the 901's ability to produce music with a fidelity that you will immediately recognize as superior. You are buying sound. LISTEN TO THE BOSE 901 IN DIRECT COMPARISON WITH ANY OTHER SPEAKERS, REGARDLESS OF SIZE OR PRICE. YOU WILL ONLY APPRECIATE WHY WE MAKE THIS REQUEST AFTER YOU HAVE MADE THE EXPERIMENT.



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Cartridge  
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Model 120 Stereo Receiver

# The unbeatable combination for cartridge sound

ROBERTS' Model 808D 8-track cartridge stereo tape deck, Model 120 solid state AM/FM stereo receiver, and S915 hi-fi stereo speaker system brings the ultimate in 8-track cartridge sound to the audio perfectionist. The 1-micron head reproduces exciting high notes and mellow, vibrant low tones. You can record 8-track cartridges yourself and play them back in your car stereo or hi-fi system for hours of uninterrupted stereo music.

## ROBERTS 808D Cartridge Stereo Tape Deck

8-track cartridge stereo recording/playback • Fast forward control • 1-

28

micron head (with lifetime guarantee) • Cartridge program selector • 3-3/4 ips • Automatic stop • Frequency response: 50—15,000Hz  $\pm$  3db • Size: 13-1/2" x 9-1/2" x 5-3/8"

## ROBERTS 120 Solid State AM/FM Stereo Receiver

Power amplifier: 100 W music power • Harmonic distortion: less than 0.8% at rated output **Tuner:** Frequency range: FM 88—108MHz, AM 535—1605KHz • Harmonic distortion: FM less than 0.8% • FM stereo separation: better than 35db • Size: 5-1/4" x 17-1/2" x 13-3/8"

## ROBERTS S915 Hi-Fi Stereo Speaker System

Woofer: 10" • Tweeter: 3-1/2" • Impedance: 8 ohms • Max. power input: 25W • Frequency response: 50—17,000Hz • Size: 20-1/2" x 12-1/2" x 10-1/2" each • Weight: 17.6 lbs each

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STEREO REVIEW



# EQUIPMENT TEST REPORTS

By HIRSCH-HOUCK LABORATORIES

- Marantz Model 22 AM/Stereo FM Receiver
- James B. Lansing SE 460 Stereo Power Amplifier
- Astrocom/Marlux Model 407 Tape Deck
- Perpetuum-Ebner PE 2038 and 2040 Automatic Turntables

## MARANTZ MODEL 22 AM/STEREO FM RECEIVER



● THE performance of this new receiver can only be described as superb. It is the first Marantz receiver to include an AM tuner, the quality of which seems to be at least as good as any other currently available. However, the FM and audio sections of the Marantz Model 22 decisively set it apart from other receivers, and prove that, if the manufacturer wants to, it is possible to design an integrated receiver that will match the performance of the most advanced separate components.

The Model 22 (manufactured in Japan to Marantz specifications) measures 17 x 5½ x 14 inches overall, and has an impressive array of operating controls and features. There are two tuning meters—one that indicates the relative signal strength on FM and AM, and the other for zero-center FM tuning. The receiver has a clever and effective method for indicating and minimizing multipath distortion. When the ANTENNA TUNING button next to the meters is pressed, the FM i.f. and detector circuits are temporarily replaced by a separate i.f. amplifier and AM detector, whose output goes to the zero-center tuning meter and the audio amplifiers. A perfect FM signal has no AM component, so the meter would read zero and no sound would be heard if such a signal were tuned in. In practice, some AM is always introduced by multipath reception, causing distortion and impaired separation in severe cases. When AM is present, the meter "kicks" upward from its center position and a distorted sound is heard in the speakers. When the antenna is set or rotated for minimum sound and meter movement, FM reception is optimized. Releasing the button restores normal FM reception. The whole process takes less time to perform than to describe. It appears to be as effective as the cathode-ray indicator used in Marantz's more expensive components, and is probably easier for most people to use. Before leaving the tuner sec-

### TECHNICAL TALK

In place of his regular *Technical Talk* column this month, Julian Hirsch has supplied us with an extended examination of the speaker-testing procedures employed at Hirsch-Houck Laboratories. The article will be found on page 53 of this issue, and the regular *Technical Talk* feature will resume in its usual place next month.

tion, we have two additional comments. The horizontally oriented flywheel (a feature of previous Marantz tuners and receivers) used in place of a conventional tuning knob may not be to everyone's taste. And the dial calibrations, which are at 2-MHz intervals, are not linearly distributed, which sometimes makes it difficult to identify a desired station in a crowded portion of the FM band.

The usual functions of input selection, balance, volume, and bass and treble are handled by knobs, with concentric separate tone controls for the two channels. The available inputs, besides AM and FM, include TAPE, AUX, and two magnetic-phono inputs. All other controls are pushbuttons—eleven in all. They include the a.c. power switch, tape monitoring, a high-frequency blend circuit for stereo-FM noise reduction, high- and low-cut filters, loudness compensation, FM interstation-noise muting, and two pushbuttons for energizing either or both of two pairs of speakers. Two last pushbuttons are used for mono/stereo operation. Depressing either one alone puts the signal in that channel (left or right) through both speakers; depressing both pushbuttons parallels the channels for mono listening.

The usual tape-recorder outputs and inputs are in the rear. They are paralleled by a pair of stereo (three-circuit) phone jacks on the panel. This allows a second tape recorder to be connected into the system, and signals can be dubbed from one recorder onto the other. A headphone jack completes the front-panel arrangement. In the rear of the receiver, spring-loaded clips are used for speaker and antenna connections. They require no screwdriver and are without doubt the most convenient, safe, and positive-acting connections we have come across.

The FM tuner has an FET front end, and there are three IC's plus two ceramic filters in the i.f. amplifier. The stereo-FM separation of the Marantz Model 22 was by far the best, over the widest frequency range, that we have yet measured on an FM receiver, and we suspect that much of this can be credited to the i.f. filter design. We are now convinced that ceramic filters can be at least as good as crystal filters in FM tuners, insofar as their phase linearity is concerned. The stereo-FM separation exceeded 40 dB between 200 and 1,500 Hz, and was better than 23 dB from 30 to 15,000 Hz. Until we tested this receiver, we did not believe our test equipment was that good!

We measured an IHF sensitivity of 2.65 microvolts, with limiting nearly complete at 4 microvolts. Thus the actual, effective sensitivity of the Model 22 is about as good as that of many receivers with higher IHF sensitivities. Its distortion was less than our generator's residual of 0.5 per cent for inputs exceeding 7 microvolts. Capture ratio was 2.4 dB, and FM frequency response was flat within ±0.5 dB from 30 to 15,000 Hz. Normally this order of flatness is obtained only when the receiver lacks a filter to remove 19- and 38-kHz components from the multiplex decoder outputs. However, the almost complete absence of these frequencies from the receiver's outputs suggests that Marantz has incorporated an unusually refined and effective low-pass filter in the Model 22. (Continued on page 33)

# The Marantz Receiver.

Now everybody can afford one.

Once you had to be a cattle baron, a railroad heiress, or at least the duke of a small duchy to own a Marantz. But now our receivers begin at prices more suited to those who enjoy rich tastes but do not have a princely pocketbook.

Until last year, the least-expensive Marantz stereo receiver you could buy cost \$695.00! Today, Marantz receivers are available in other than very-high price ranges. True, you can still invest \$995.00 for a Marantz receiver, but now we have receivers starting as low as \$219.

For the budget-minded music-lover, the new Model 26 AM-FM Stereo Receiver is today's most powerful low-price buy. 20 watts RMS continuous 20-20 KHZ (30 watts IHF) built with the same quality as our most expensive units. Price—only \$219!

Looking for more than twice the power of the Model 26 at less than twice the cost? Then Marantz built the Model 27 just for you. Only \$319.

Have a space problem? Own the versatile

Marantz Model 25 AM-FM Stereo Receiver/Compact. It has room at the top to drop in your favorite Dual, Garrard, or Miracord record changer to form a complete compact system. Just \$379.

Here is one of our most powerful popular-priced AM-FM Stereo Receivers. The Marantz Model 22. Eighty watts RMS continuous power (120 watts IHF). It features two sensitive tuning meters for precise station tuning and maximum signal strength. Yours for \$449.

And now the regent of receivers, the incomparable Marantz Model 19 FM Stereo, the world's only receiver with a built-in oscilloscope. It displays with a visual electronic pattern six separate characteristics needed to optimize FM and Stereo performance. Price? \$995.

Regardless of price, every Marantz component is built with the same careful craftsmanship and quality materials.

Your local dealer will be pleased to demonstrate Marantz receivers. Then let your ears make up your mind.





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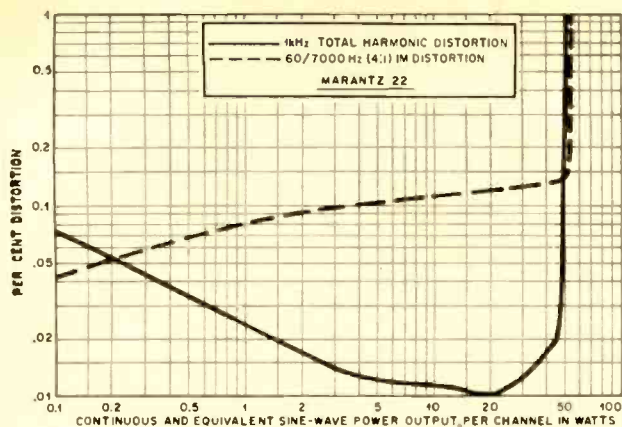


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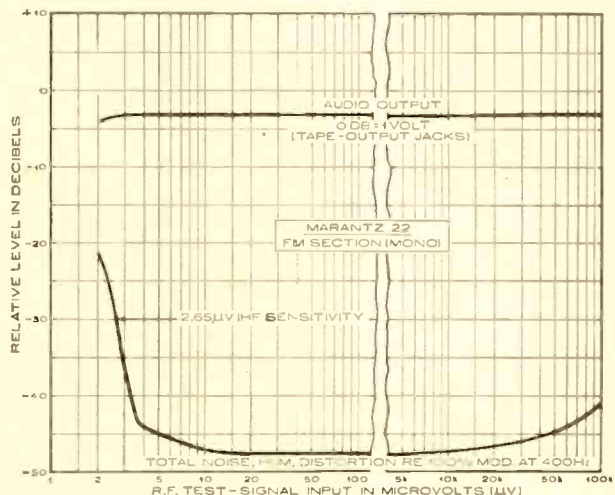
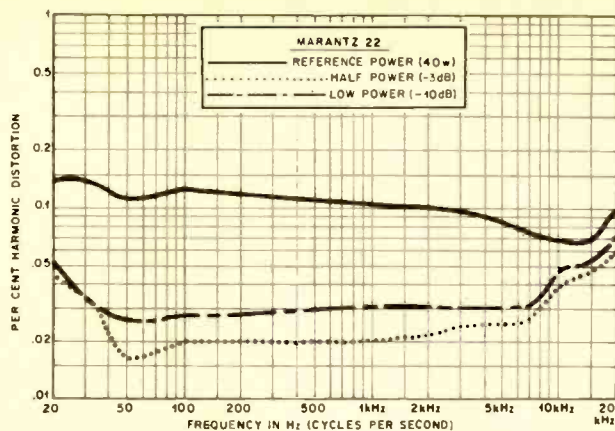
Seagram's V.O. not only says you can afford the smoothest, lightest Canadian whisky of all; it says you have the taste to recognize the smoothest, lightest Canadian whisky of all. And lots of taste is just as impressive as lots of money. Don't you think?



The audio amplifiers are rated by Marantz at 40 watts per channel into 8 ohms, both channels operating, with less than 0.3 per cent harmonic or IM distortion between 20 and 20,000 Hz. These are impressive specifications for a receiver, but not nearly as impressive as the figures we measured. The IM distortion, less than 0.05 per cent at 0.1 watt, was about 0.1 per cent in the 1 to 10 watt range, 0.13 per cent at the rated 40 watts, and did not rise significantly until clipping occurred at about 50 watts. The 1,000-Hz harmonic distortion dropped from 0.076 per cent at 0.1 watt to about 0.015 per cent from 2.5 to 37 watts, reaching 0.017 per cent at 40 watts and 0.2 per cent at 50 watts. Into 4-ohm loads, available power was about 23 per cent greater than with 8-ohm loads, and into 16 ohms it was about 40 per cent less.

At the rated 40-watt output, harmonic distortion was under 0.14 per cent from 20 to 20,000 Hz, and was typically 0.1 per cent. At half power or less, it was under 0.06 per cent over the full frequency range, and averaged about 0.025 per cent.

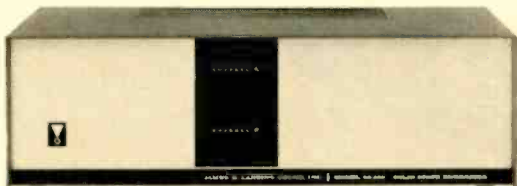
The phono inputs required only 1.3 millivolts for 10 watts output, yet did not overload until 67 millivolts was applied. Hum and noise were exceedingly low: -80 dB on AUX and -77 dB on PHONO, referred to 10 watts. The RIAA equalization was accurate to  $\pm 0.7$  dB over its range. With the tone controls centered, the frequency response was as flat as we could measure—about  $\pm 0.1$  dB from 20 to 20,000 Hz. The tone-control characteristics were excellent, with the inflection points moving inward as the controls were advanced, and with negligible effect on mid-range response. The filters had very moderate 6-dB-per-octave slopes, with their -3-dB points at 80 and 5,000 Hz.



The performance of the Marantz Model 22 is undoubtedly better than 99 per cent of the program material it will ever be called upon to handle. Only a few of the most expensive amplifiers can compare with it in distortion and response characteristics. To the extent that we were able to measure them, its FM-tuner frequency response, separation, and distortion have not been surpassed by anything in our experience. In view of these facts, the price of the Marantz Model 22 (\$449 in a walnut-finish metal cabinet) would seem to be moderate indeed. An optional walnut cabinet is \$25.50.

For more information, circle 156 on reader service card

### JAMES B. LANSING SE460 STEREO POWER AMPLIFIER



● WHEN we tested the SE400S power amplifier (STEREO REVIEW, October, 1968), we were slightly frustrated by limitations in our test equipment that prevented us from measuring distortion below 0.1 per cent—a distortion level that the amplifier didn't reach until it was driven well beyond its rated output. Since then we have acquired a Radford distortion measuring system that extends our THD (total harmonic distortion) measuring capability down to

0.002 per cent. Most recently, we have improved our intermodulation-distortion measurement facility by the addition of a Techron IM analyzer (made by Crown International) whose residual distortion is well under 0.005 per cent. Therefore, when we received the new JBL SE460 amplifier for testing, we felt confident that we could measure its true performance.

The JBL SE460 stereo power amplifier is essentially similar to the SE400S in circuitry, size, and styling, but is rated at 60 watts per channel instead of 40 watts. It uses a direct-coupled differential-amplifier circuit with overall d.c. feedback. (The owner's manual warns that none of the speaker-output terminals should ever be grounded or connected to each other.) There are no audio transformers or coupling capacitors except for an input blocking capacitor, and the circuit has notable stability and transient-recovery characteristics. The amplifier is quite compact,

(Continued on page 36)



Murray Allen owns one of the world's keenest ears. He played sax and clarinet with big name bands like Skitch Henderson's and Bobby Sherwood's before becoming an engineer. And has done sessions for Bobby Melton, The Hi-Lo's, Julie London and many other famous names. Murray was one of the first to experiment in multi-track recording and recently pioneered in the use of 16-track. He is now with Universal Recording Studios where he engineers records and commercials, including the Schlitz and United Air Lines television campaigns which are currently on the air. He was also Audio Consultant to Science Research Associates.

# An audio the new

"The VM professionals are really worthy of the name. I've never seen so much professional control in home-type equipment."

"The VM 1521 receiver, for example, does a lot of things even more expensive units I've played with can't."

"The bass and treble controls really give you a lot of room. And it's got a high and low filter you can switch in and out. The separation is terrific, too."

"I mean you can take something like a bass and clarinet duo and completely isolate the bass on one channel, then completely isolate the clarinet on the other."

"Another thing, I live in an area where FM is very Rfy. The VM 1521 has a new filter that handles it better than anything I've heard."

"The speakers are something else, too. VM calls them the Spiral Reflex System. Built on the twin wave theory. That's very efficient. And clean. Really clean. Especially the percussions. Even the transients don't get distorted. It even gets those low guitar sounds."

"And I really like the VM 1555 automatic turntable. The cueing. The belt-driven platter. The extra length on the tone arm. The photo-electric tripping mechanism. All of them are terrific."

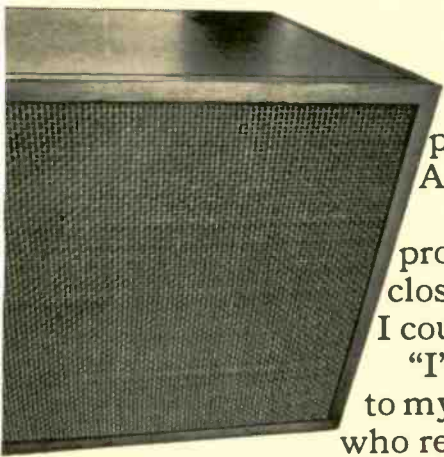
"And the spindle gently lowers records all the way down to the stopped platter. Really takes good care of them."



The VM  
PROFESSIONAL 1521  
Semiconductor  
complement: 49  
transistors, 30 diodes,  
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front end with  
2 dual gate  
MOSFETs for  
lower cross  
modulation,  
greater  
sensitivity and  
overload; 5 pole  
phase linear  
toroidal filters  
and 2 ICs for  
selectivity,  
sensitivity and  
limiting that  
surpasses all  
previous standards  
in this price range  
• AMPLIFIER: Power  
output/bandwidth:  
40 watts RMS/  
channel power at less  
than 0.5% distortion;  
bandwidth 9-30 KHz  
• IM distortion: less than  
0.5% • Frequency  
response:  $\pm 1$  db 20 Hz-  
20 KHz • TUNER:  
Sensitivity: 1.5 uv for 30  
db quieting • Signal to  
noise ratio: -75 db  
• Capture ratio: 1.8 db  
• Selectivity: -75 db  
• SM 100% MOD  
distortion: less than 0.5%  
• Stereo separation: 40  
db at 1 Hz • Image  
rejection: -90 db • IF  
rejection: -100 db  
• Spurious response  
rejection: -100 db  
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cabinet of oiled walnut  
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extra cost. (Model 1520,  
same as above except 25  
watts RMS/channel  
power.)

# engineer talks about VM professionals.



"You know how hard it is to reproduce a clean piano or harp. Well, the 1555 does a beautiful job. Absolutely no wow."

"I listened to an album I engineered on a VM professional rig, and I can honestly say it was closer to the master tape than I'd ever heard.

I could even hear tape noise which is really rare."

"I've decided to take my VM professional outfit to my office. Every day I deal with people who really know a good sound when they hear it."

"And it always pays to make a good impression."

#### THE VM PROFESSIONAL "SPIRAL REFLEX SYSTEM" 84

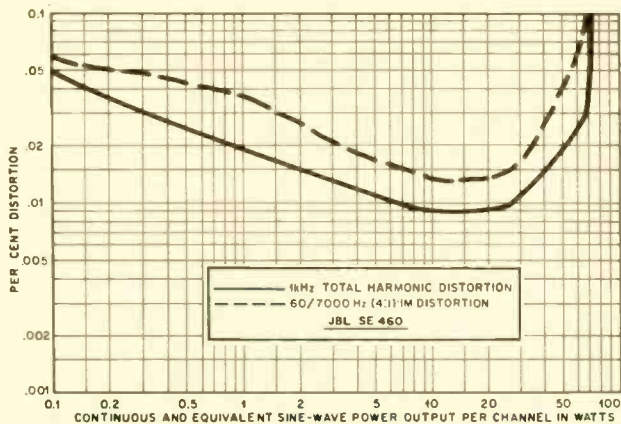
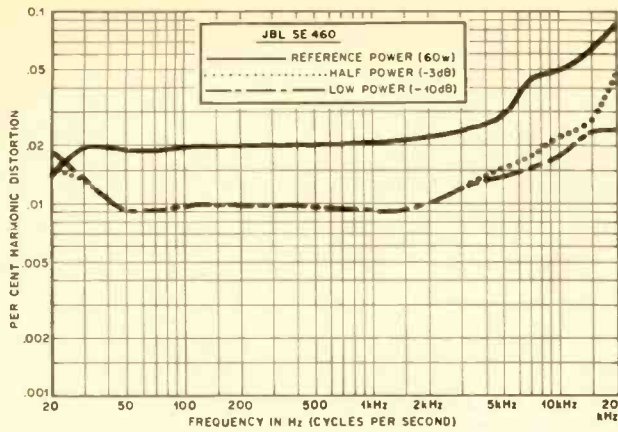
The speakers' back waves are channeled through a spiral configuration acoustical tunnel so that the back and front waves blend in phase and the high frequencies of the back wave are completely eliminated; the result is exceptionally clean frequency response with extended bass and high efficiency • Speakers: high compliance, air-suspension type, 8" woofer, 3 1/2" cone type tweeter • Response: 35-20,000 Hz • Power Rating: 80 watts peak, 40 watts RMS • Cabinet is Pecan solids and veneers with inlays of Carpathian Elm Burl.

**THE VM PROFESSIONAL 1555**  
Two synchronous motors — 24-pole for turntable, one for changer mechanism • Belt driven, completely isolated, low mass, dynamically balanced turntable • Gentle lowering spindle • Automatic record size sensor system • Photo cell cycle-change sensor eliminates side pressure and trip noise • Piston-damped 2-way cue control • 9 1/2" tone arm (from pivot to stylus); the longest on any automatic turntable • Piano-key control center isolated from turntable and pick-up arm • Built-in anti-skate system • Detachable head • Tracking error: 1 1/2 degrees maximum over entire record • Rumble: — 52 db (CBS weighting) • Comes complete with Shure magnetic cartridge and attractive walnut base with dust cover.



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CIRCLE NO. 42 ON READER SERVICE CARD



considering its high power. It measures  $4\frac{3}{8}$  inches high x  $15\frac{3}{4}$  inches wide x  $7\frac{3}{4}$  inches deep and weighs about 20 pounds.

Because of its low idling current, the SE460 can be left on permanently without becoming more than faintly warm to the touch. Each channel has its own input-level adjustment and a relatively low input impedance of 25,000 ohms, which should be compatible with any good preamplifier.

Like the SE400S, the SE460 can be purchased with optional plug-in equalizing boards that adjust its response and damping factor for optimum performance with any JBL speaker as well as some other makes of speaker. As tested, the response was set flat and the damping factor was high (it is rated at 32 for 8-ohm loads).

In our tests, the SE460 delivered 75 watts per channel into 8-ohm loads at 1,000 Hz with both channels driven to the clipping point. With 4-ohm loads, the output was slightly over 100 watts; into 16 ohms it was about 45 watts. A 0.37-volt input signal drove the amplifier to 10 watts output, and the noise in its output was 83.5 dB below 10 watts. The frequency response was extremely flat, within  $\pm 0.05$  dB from 20 to 20,000 Hz. It was down 3 dB at 210 kHz and 1.3 dB at our lower measurement limit of 5 Hz.

At 1,000 Hz, the distortion was under 0.05 per cent at 0.1 watt, falling smoothly to slightly under 0.01 per cent between 7 and 30 watts, and increasing to 0.025 per cent at the rated 60-watt output. The distortion was 0.1 per cent just below the clipping point of 75 watts. The IM distortion characteristic was very similar, starting at 0.06 per cent for 0.1 watt, dropping to under 0.015 per cent between 8 and 30 watts, and increasing to 0.06 per cent at 60 watts.

At 60 watts per channel, the distortion was under 0.02 per cent from 20 to 1,000 Hz, increasing to 0.05 per cent at 10,000 Hz and 0.09 per cent at 20,000 Hz. At half power or less, the distortion was under 0.01 per cent from 40 to about 2,000 Hz, under 0.05 per cent all the way to 20,000 Hz, and under 0.02 per cent at 20 Hz.

Needless to say, the JBL SE460 performed essentially as a perfect amplifier in listening tests. It has the power to drive any speaker, and its distortions were not only inaudible, but were not even measurable without the most advanced test equipment. Like the SE400S (which is still available), the SE460 cannot be faulted in any respect, and it offers even more power at a nominal increase in price. The JBL SE460 in a handsome matte-finish steel cabinet sells for \$342 with flat equalization (as tested), or \$354 with equalizer boards.

For more information, circle 157 on reader service card

## ASTROCOM/MARLUX MODEL 407 TAPE DECK



● OBVIOUSLY designed to offer professional features and appearance in a moderately priced home tape deck, the Astrocom/Marlux Model 407 immediately impressed us as a carefully thought-out, well-made machine. Its transport functions are completely under the control of solenoids, actuated by pushbuttons that require only a very light touch. All visible metal parts on the transport are finely finished, and the cast-metal head cover, when raised upward on its hinges to expose the straight-line tape path, reveals four heads protected by a thick, transparent plastic plate. The deck has three motors, and the two speeds ( $7\frac{1}{2}$  and  $3\frac{3}{4}$

ips) are selected by a pushbutton. The capstan is driven by a hysteresis-synchronous motor, and electro-dynamic braking is applied to the reel motors.

The Astrocom/Marlux 407 plays in both directions, and can be set to reverse automatically by attaching a foil strip to the tape. It can also be reversed manually at any time simply by pressing the REVERSE button. The two basic operating pushbuttons are flanked by fast-forward and rewind buttons, and a prominent red STOP button is in the middle of the group. In addition, there is an a.c.-power button and a tape-tension button that provides the appropriate tension for standard 1.5-mil tape or for the thinner 1-mil and 0.5-mil tapes.

At the right of the transport is the electronic section. It has concentric gain controls for the two high-level line inputs, and another pair for the microphone inputs. The latter are designed for dynamic microphones with a 10,000-ohm impedance. The inputs can be mixed. At the top of the electronics section are concentric playback-level controls. The two VU meters are located above two record-safety buttons, which must be pressed when the tape is set in motion if a recording is to be made. A red light above each button signifies that the corresponding channel is in the record mode.

(Continued on page 38)





## There are 202 parts in a Garrard automatic turntable.

## We make all but a piddling few.

Today's automatic turntable is a beastly sophisticated device.

The Garrard SL95B, below, has 202 different parts.

That is, unless we tally the "parts" that go into such final assembly parts as the motor and pickup arm. In which case the total is more like 700.

A few of these parts we buy. Mostly springs, clips and bits of trim.

But the parts that make a Garrard perform, or not perform, we make ourselves.

### To buy or not to buy

At our Swindon works, in England, a sign reads "If we can't buy surpassing quality and absolute accuracy, we make it ourselves."

E. W. Mortimer, Director of Engineering Staff and a Garrard employee since 1919, says "That sign has been there as long as I can remember.

"But considering the precision of today's component turntables, and the tolerances we must work to, the attitude it represents is more critical now than it was even ten years ago."

Our Synchro-Lab motor is a perfect example.

To limit friction (and rumble) to the irreducible minimum, we super-finish each rotor shaft to *one micro-inch*.

The bearings are machined to a

tolerance of plus or minus one ten-thousandth of an inch. Motor pulleys must meet the same standard.

"When you make them yourself," observes Mr. Mortimer "you can be that finicky. That, actually, is what sets us apart."

### Mass produced, by hand

Despite its place as the world's largest producer of component automatic turntables, Garrard stubbornly eschews mass production techniques.

Every Garrard is still made by hand.

Each person who assembles a part tests that finished assembly.

And before each turntable is packed in its carton, 26 final tests are performed.

Thus, we're assured that the precision achieved in its parts is not lost in its whole.

### Swindon, sweet Swindon

In fairness to other makers, we confess to a special advantage.

Our home.



At last census the total population of Swindon, England was 97,234. Garrard employs a rather large share of them, and has for fifty years.

"Not everyone has been here from the year one as I have," smiles Mortimer "but we have 256 employees with us over 25 years. Many are second and third generation.

"It's hardly your average labor force. Everyone feels a part of it."

### The sum of our parts

Today's SL95B is the most highly perfected automatic turntable you can buy, regardless of price.

Its revolutionary two-stage synchronous motor produces unvarying speed despite extreme variations in line voltage.

Its new counterweight adjustment screw lets you balance the tone arm mass to within a hundredth of a gram.

Its patented sliding weight anti-skating control is permanently accurate.

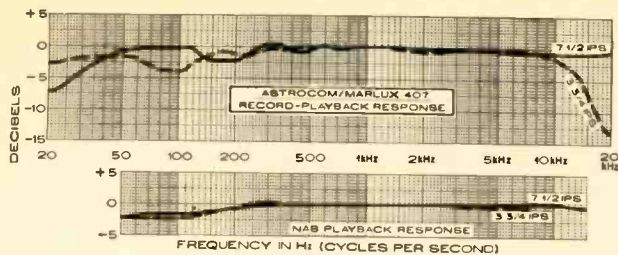
And its exclusive two-point record support provides unerringly gentle record handling.

You can enjoy the SL95B, the sum of all our parts, for \$129.50.

Or other Garrard component models, the sum of fewer parts, for as little as \$44.50.

Your dealer can help you decide,

**Garrard**<sup>®</sup>  
British Industries Co.



Finally, there are pushbutton switches for transferring the program from either track to the other. This permits sound-on-sound recording, or adding echo while making a recording. Between the two ECHO buttons is a source/tape monitor button that connects either the input or the playback-amplifier outputs to the line outputs. The input and output jacks (phono type) are located in the rear of the unit, as is a duplicate input-output DIN connector and a stereo headphone jack that will drive low-impedance phones. The deck comes on a handsome wooden base measuring 21 inches wide x 14 1/2 inches high x 10 1/2 inches deep, and it weighs 40 pounds.

Just about the only feature we would like to see added to the 407 is a pause control. However, recording levels can be set up with the tape stationary and the transport starts quite positively when the control button is pressed, unlike those of some machines that need a pause control to overcome a sluggish or uneven start.

Each Astrocom/Marlux 407 recorder is supplied with an individual frequency-response calibration chart, made during the thorough test it receives before shipment to the dealer. We measured the record-playback response of the 407 by first recording the signal and then rewinding the tape to play it back. Playback measurements made with the machine in the record mode were influenced by the 85-kHz bias signal appearing at the line outputs. This did not interfere with normal monitoring operation, but did confuse the test instrument readings. The machine is set up for Audiotape Formula 15 (similar to 3M Type 203) which we used for our tests.

The record-playback response at 7 1/2 ips was down only 0.5 dB at 20,000 Hz from its 1,000-Hz level. Head fringing effects caused some non-audible low-frequency irregularity, and the output was down about 6 dB at 20 Hz. The overall record-playback response was excellent—within  $\pm 1.5$  dB from 40 to 20,000 Hz. At 3 3/4 ips the response was  $\pm 2$  dB from 20 to 13,000 Hz.

The NAB frequency response, checked over its range with the Ampex quarter-track test tapes, was flat within 0.5 dB from 200 to 15,000 Hz at 7 1/2 ips and down only about 2 dB at 50 Hz. At 3 3/4 ips, it was down 0.5 dB at 7,500 Hz and 2.5 dB at 50 Hz. The response was essentially the same in both playing directions.

The transport operated as well as its fine appearance suggested. The wow was 0.02 per cent at both speeds. Flutter in the forward direction was an excellent 0.065 per cent at 7 1/2 ips, and 0.085 per cent at 3 3/4 ips. In the reverse direction, flutter was 0.1 per cent at both speeds. The tape speeds were exact, and we appreciated the very fast and smooth high-speed winding of the 407, which handled 1,800 feet of tape in less than 58 seconds.

The distortion was under 1.6 per cent with recording levels as great as +10 dB (far off-scale on the meters). The signal-to-noise ratio was 54 dB at both speeds, referred to a +6 dB input. A line input of 0.12 volt or a microphone input of 0.75 millivolt was needed for 0-dB recording level, and the corresponding line output was 0.78 volt.

In an A-B comparison of input and output signals, the Astrocom/Marlux 407 did a truly excellent job at 7 1/2 ips. Even with FM interstation hiss as a "program" (one of the most severe tests of a tape recorder), virtually no difference could be heard between the input and output signals. At 3 3/4 ips, a slight loss of highs was audible on some program material, but it was certainly not obtrusive. The transport controls operated smoothly, with no tendency to spill or break tape under any conditions of use. In sum, it's safe to say that the operating features, design, and construction of the Astrocom/Marlux 407 make it an excellent value, well beyond what one expects to find in a tape deck selling for only \$379.95.

For more information, circle 158 on reader service card

## PERPETUUM-EBNER PE 2038 AND 2040 AUTOMATIC TURNTABLES



● THESE two automatic turntables are the successors to PE's Models 2018 and 2020, reported on in the October 1969 and May 1968 issues, respectively. Although the new units have the same basic design and operating features as their predecessors, some improvements have been added.

One feature of special interest on the PE record players is the provision for adjustment of vertical-tracking angle at the cartridge shell. With most automatic turntables the vertical-tracking angle changes to some degree during automatic play as records are added to the stack on the platter. The PE machines have a small knob on the front of the

cartridge plug-in slide that tilts the phono cartridge up or down when turned. Numerals from 1 to 8 appear in a small window on the top of the arm head as the knob is rotated, enabling the user to set the correct vertical-tracking angle for any record in a stack of eight. For example, position number 1 would be used for manual play of a single record. Position 4 gives the correct vertical-tracking angle (if the cartridge has been designed—and installed—correctly) for the center of a stack of eight records.

Another interesting aspect of the PE mechanical design is the method of sensing record size. A small feeler next to the turntable projects up from the motor board when the changer mechanism is activated. This tests for the presence of a 12-inch record on the platter, and indexes the arm appropriately if one is encountered. A second feeler near the center of the turntable is partially depressed when either a 10 or 12-inch record is on the turntable. If the center feeler is depressed partially and the outer feeler does not contact a record, the arm indexes for a 10-inch disc. If no record is on the turntable, the inner feeler is fully extended, and the arm will not leave the rest. This protects the phono stylus against damage from striking the rubber mat on the platter. A 7-inch record will fully depress the inner feeler, indexing the arm accordingly. This very ingenious indexing and protective system worked flawlessly during our extensive use of these record players.

(Continued on page 40)

# POWER and purpose are implicit in its every distinctive line...



Never before has there been a receiver like the 387.

Power and purpose are implicit in its every distinctive line...

from its bold new high-visibility dial face to the sweep of its comprehensive control panel.

And just wait until you experience the 387's effortless performance! A new kind of receiver power is yours to command — instantaneous, undistorted, unmatched for flexibility and responsiveness.

Inside, the 387 justifies its advanced exterior. Here are tomorrow's electronics... Integrated Circuits, Field Effect Transistors, solderless connections, and electronic safeguard systems to keep the 387's 270 Watts of power totally usable under all conditions.

Decades of manufacturing experience and engineering skill have gone into the 387. But to really appreciate how its designers have totally rejected the ordinary, you must see it and hear it.

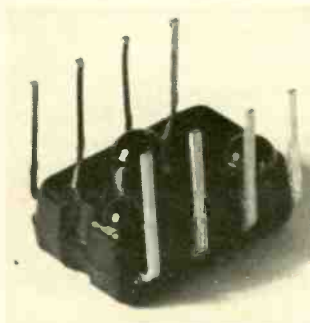
## SCOTT 387 AM/FM STEREO RECEIVER



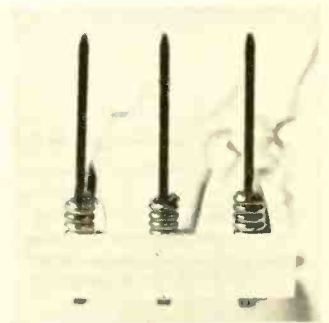
Computer-activated "Perfectune" light: Perfectune computer decides when you're tuned for the best reception and lowest distortion, then snaps on the Perfectune light.



New Modutron Circuit Board Exchange Policy: Takes over after your warranty expires; insures quick, inexpensive replacement of any plug-in printed circuit board for as long as you own your Scott unit.



Ultra-reliable Integrated Circuits: Seven IC's are included in the 387... totalling 91 transistors, 28 diodes, and 109 resistors.



New solderless connection techniques: Tension-wrapped terminal connections plus plug-in circuit modules result in the kind of reliability associated with aerospace applications.

### 387 SPECIFICATIONS

AMPLIFIER SECTION: Total power ( $\pm 1$  dB) 270 Watts @ 4 Ohms; IHF music power, 220 Watts @ 4 Ohms; 140 Watts @ 8 Ohms; Continuous output, with one channel driven, 100/100 Watts @ 4 Ohms; 63/63 Watts @ 8 Ohms; Continuous output, with both channels driven, 85/85 Watts @ 4 Ohms; 55/55 Watts @ 8 Ohms; Harmonic distortion, 0.5% at rated output; IHF power bandwidth, 10 Hz — 38 kHz; Hum and noise, phone, -70 dB. TUNER SECTION: (FM); Usable sensitivity (IHF), 1.9  $\mu$ V; Stereo separation, 40 dB; Capture ratio, 2.5 dB; Signal/Noise ratio, 65 dB; Cross modulation rejection, 80 dB; Selectivity, 42 dB. TUNER SECTION: (AM); Sensitivity (IHF), 4  $\mu$ V @ 600 kHz; Selectivity (IHF), 32 dB.

Price: \$449.95 Accessory case, extra.

Prices and specifications subject to change without notice.

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Like the previous PE models, the 2040 (shown above) and 2038 are supplied with both an automatic-play spindle and a single-play spindle that rotates with the platter. The automatic-play spindle supports the record stack by means of three prongs projecting from the shaft. The record-dropping action is quite gentle.

The principal external change in the new models is the use of a separate cueing lever (with damped raising and lowering) instead of combining this function with the single lever that controls the other operations of the turntable. Because of this change, it is no longer necessary to wait about 18 seconds for the cycling action to take place before a single record can be played manually. Now one simply moves the control lever to MANUAL, positions the arm over the record, and lowers it by means of the cueing lever. In automatic operation, the PE players still have a rather long change cycle (about 20 seconds), but this is a minor inconvenience when playing a stack of records. Aside from the cueing modification, the only other change we could find on the new models was the elimination of the 16 $\frac{2}{3}$ -rpm speed, making them three-speed machines.

The PE record players are driven by a husky four-pole induction motor that is virtually unaffected by line-voltage changes. The speed is adjustable over a  $\pm 3$ -per-cent range about each nominal speed. The arms on the two machines are identical, with a tracking-force dial calibrated in 0.5-gram steps from 0 to 6 grams. The very low arm friction makes it easy to balance the arm unambiguously, and we found the tracking-force calibration to be accurate within about 0.1 gram or better. The tracking error was quite low, reaching a maximum of about 0.7 degree per inch at a 3-inch radius.

On the PE 2038, anti-skating correction is applied by a dial that is concentric with the tracking-force dial and similarly calibrated. On the PE 2040 there is a separate dial on the motor board calibrated arbitrarily from 0 to 10. The

instruction manuals give the recommended settings for styli of different dimensions. We found that the anti-skating compensation of the PE 2038 had to be set about 1.5 grams higher than recommended for best results. The PE 2040, like its predecessor, did not have enough anti-skating correction available even at the maximum setting when an elliptical stylus tracking at 1.5 grams was used. On both models the antiskating force tended to cause the arm to drift outward slightly when it was lowered by means of the cueing lever.

The PE 2038 has a 10 $\frac{1}{2}$ -inch non-ferrous cast turntable weighing 4 $\frac{1}{4}$  pounds. The PE 2040 turntable is a massive non-ferrous casting 11 $\frac{3}{8}$  inches in diameter and 7 pounds in weight. The wow and flutter of both units were virtually identical, measuring 0.08 per cent and about 0.04 to 0.05 per cent, respectively. This is approximately what we measured on the older models. However, we found appreciably lower rumble on the new PE turntables—some 5 to 7 dB lower than on the former ones. For the PE 2038, the rumble was -32 dB (lateral and vertical combined) and -37 dB (lateral only). For the PE 2040, the figures were respectively -39 dB and -42 dB. These are very nearly the residual rumble of our test records, and are about as low as we have measured on any turntable.

In operation, the two PE units behaved identically, and we were impressed by their smoothness and mechanical quietness. They give a positive impression of good workmanship and finish, and now that the manual mode of operation has been speeded up, our only criticism of the earlier PE units has been eliminated. The PE record players, in their respective price ranges, are strongly competitive and are very good values. The PE 2038 sells for \$115 and the PE 2040 for \$145. Wood bases and dust covers are \$8 each for both models. A deluxe combination base and dust cover is also available.

For more information, circle 159 on reader service card

## The Case Of: New JansZen<sup>®</sup> Electrostatics vs. Traditional Size And Expense

If you've always wanted to add the natural sound transparency of Electrostatic speakers to your system but assumed they were bulky and expensive, hear JansZen's case: We make the beautiful little Electrostatic 130 that can fit right on top of your speakers. Now through handmade Electrostatic elements you can add mid/high range "REALISM PLUS" — 500-30,000 Hz. The JansZen Z-700 bookshelf provides the full range, 30-30,000 Hz, for those who are starting out and want Electrostatic clarity only improved JansZen speakers can produce.

These compact Electrostatics are priced down with comparably sized units. Really! See, it only takes a little to make a big difference in your listening . . . thanks to JansZen.

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JansZen 130



## When you're young your ears are sharp and your pocket book is flat

And you can hear every dB of difference between what you can afford and what you'd like to.

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The FM stereo/FM-AM tuner has switchable AFC, solid-state i.f. filters, FET's and everything you need to bring in all stations richly, clearly, enjoyably.

The amp has 44 watts of IHF power, a front-panel Aux input, high filter, tape monitor, speaker switching and a sexy, sliding balance control.

And, they sell for one hundred twenty dollars each—complete with walnut cabinet.

We call the tuner the ST-5600, and the amp the TA-1010. You'll call them nicer names. Enjoy these at your hi-fi dealer. Sony Corporation of America, 47-47 Van Dam Street, Long Island City, N.Y. 11101.

**THE SONY® STEREO TWINS, \$120 EACH**  
CIRCLE NO. 36 ON READER SERVICE CARD

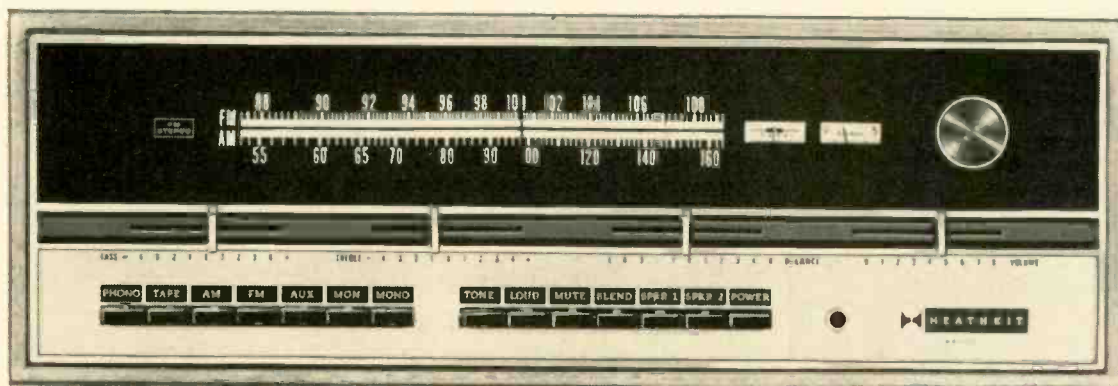
Until Now There Has Been One Stereo Receiver  
 Obviously Superior To All Others—  
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Now There Are Three

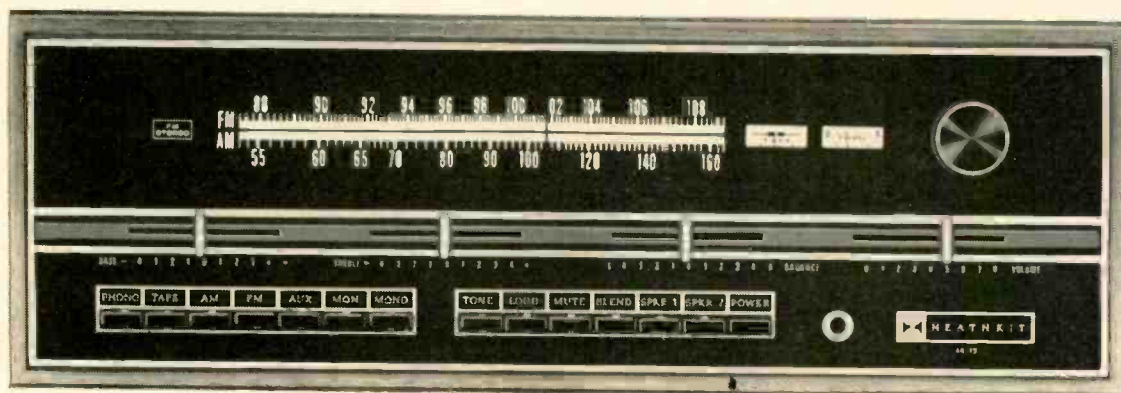
1. Heathkit® AR-15



2. Heathkit® AR-29



3. Heathkit® AR-19



## —150 Watt AM/FM/FM Stereo Receiver

The receiver that started the trend to new concepts in circuitry is still judged the world's finest . . . by owners, electronic experts and testing labs. Here are some of the many reasons why. The AR-15 delivers 150 watts music power from its 69 transistor, 43 diode, 2 IC's circuit — 75 watts per channel. Harmonic and IM distortion are both less than 0.5% at full output. The FM tuner has a cascode 2-stage FET RF amplifier and an FET mixer to provide high overload capability, excellent cross modulation and image rejection. The use of two crystal filters in the IF section is a Heath first in the industry and provides an ideally shaped bandpass and adjacent channel selectivity impossible with conventional methods. Two Integrated Circuits in the IF amplifier provide hard limiting, excellent temperature stability and increased reliability. The FM tuner boasts sensitivity of 1.8 uV, selectivity of 70 dB and harmonic & IM distortion both less than 0.5% . . . you'll hear stations you didn't even know existed, and the elaborate noise-operated squelch, adjustable phase control, stereo threshold control and FM stereo noise filter will let you hear them in the clearest, most natural way possible. Other features include two front panel stereo headphone jacks, positive circuit protection, transformerless outputs, loudness switch, stereo only switch, front panel input level controls, recessed outputs, Tone Flat control, a massive electronically filtered power supply and "Black Magic" panel lighting. Whether you choose the kit model or the factory assembled and tested version, you have chosen the world's finest stereo receiver . . . the Heathkit AR-15.

Kit AR-15, (less cabinet), 34 lbs. . . . . \$349.95\*  
 Assembled ARW-15, (less cabinet), 34 lbs. . . . . \$540.00\*  
 Assembled AE-16, optional walnut cabinet, 10 lbs. . . . . \$24.95\*

## —100 Watt AM/FM/FM Stereo Receiver

The world's finest medium power stereo receiver . . . designed in the tradition of the famous Heathkit AR-15. It's all solid-state . . . 65 transistors, 42 diodes plus 4 integrated circuits containing another 56 transistors and 24 diodes. Music power output at 8 ohms is 100 watts. Frequency response is 7 to 60,000 Hz. Harmonic Distortion is less than 0.25% and IM Distortion is 0.2% — both ratings at full power. Direct coupled outputs are protected by dissipation-limiting circuitry. It boasts a massive, electronically regulated power supply. Circuitry includes four individually heat sunk output transistors. The AR-29 uses linear motion bass, treble, balance and volume controls and pushbutton selected inputs. There are outputs for two separate stereo speaker systems, it has center channel capability and a front panel stereo headphone jack. The FET FM tuner is assembled and aligned at the factory and has 1.8 uV sensitivity. Two front panel tuning meters make precise tuning easy. A computer designed 9-pole L-C filter plus 3 IC's in the IF give ideally shaped bandpass with greater than 70 dB selectivity and eliminates alignment. IC multiplex section. The AM tuner has three FET's. An AM rod antenna swivels for best pickup. Modular Plug-in Circuit Boards make the kit easy to build and service. Built-in test circuitry lets you assemble, test and service your AR-29 without external test equipment. "Black Magic" panel lighting, chrome trim, aluminum lower panel. The AR-29 will please even the most discriminating stereo listener in performance and value.

Kit AR-29, (less cabinet), 33 lbs. . . . . \$285.00\*  
 Assembled AE-19, oiled pecan cabinet, 10 lbs. . . . . \$19.95\*

## —60 Watt AM/FM/FM Stereo Receiver

The AR-19 circuitry reflects many of the advanced concepts of the AR-29. It uses 108 transistors and 45 diodes including those in 5 integrated circuits. It delivers 60 watts music power at 8 ohms. At any power level, Harmonic and IM Distortion is less than 0.25%. Frequency response ranges from 6 to 35,000 Hz. Direct coupled outputs are protected by dissipation-limiting circuitry. A massive power supply includes a section of electronically regulated power. The assembled, aligned FET FM tuner has 2.0 uV sensitivity. A preassembled and factory aligned FM IF circuit board gives 35 dB selectivity. The multiplex IC circuit provides inherent SCA rejection. It features two switched noise muting circuits; linear motion controls for bass, treble, volume and balance; input level controls; outputs for 2 separate stereo speaker systems; center speaker capability; two tuning meters; stereo indicator light; front panel stereo headphone jack. The Modular Plug-in Circuit Board design speeds assembly. Built-in Test Circuitry aids assembly, simplifies servicing. "Black Magic" panel lighting, black lower panel, chrome accents. Compare it with any model in its price range . . . the AR-19 will prove itself the better buy.

Kit AR-19, (less cabinet) 29 lbs. . . . . \$225.00\*  
 Assembled AE-19, cabinet, 10 lbs. . . . . \$19.95\*



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CIRCLE NO. 17 ON READER SERVICE CARD

By JAMES GOODFRIEND



## GOING ON RECORD

### PRODISESTABLISHMENTARIANISM

UNTIL RECENTLY most of us thought we knew who and what the musical establishment was. People in the record business come to recognize, after a while, just what makes up the established repertoire, who puts up the money, which performer gets the benefit of an overwhelming promotional campaign, and who among the many applicants is going to get the awards and the appointments. But we have come to know the establishment from the *inside*, and that is no longer enough.

A lot of concerned people in the music business today—some performers, some managers, some executives, some record companies, some publishers, some publicists—are trying to find out what the musical establishment looks like from the *outside*. In particular, they want to know what the oft-mentioned disaffected young generation believes is or is not a part of the establishment, and the reason they want to know is tied up with the future. That is, if they are to have a future they will have to see if there is an establishment label over *their* heads and then, maybe, get out from under it.

The multiple contradictions in the student attitudes toward classical music today make sense only if we assume that the students do not actually *bate* classical music in itself. They may not actively like it, for reasons I have described in perhaps excessive detail before this, but it's unlikely that they hate it. What they do hate and avoid like the plague is the classical musical establishment, the matrix that holds the music itself in a cement-like grip. Their attitude toward music isn't really much different from their attitudes toward everything else. The smart kids know what is valuable. They are not against money, art, books, liberty, and the flag. What they don't like are the people who control those things, some of what that control results in, and what they have to go through to get some of that control for themselves.

What is the musical establishment from this point of view? Nobody really knows yet, for what is operative today is a general feeling, not a bill of particu-

lars. But we can try to break it down and get a few specifics. I doubt that the concert halls themselves are included. In New York City both Carnegie and Philharmonic Hall have too often been the sites of non-classical events for there to be anything symbolically forbidding about the buildings themselves. Opera houses, particularly in New York, may be a different story. The opera is snobbish, formal, expensive, and musically reactionary, and that combination doesn't go down very well with kids. The building may seem to stand for all those qualities. But then maybe not—the Who have recently (June 7) produced their "rock opera" *Tommy* at the Met.

A few things quite definitely *are* establishment: major newspapers, their published criticisms, and the advertisements placed in them; most radio stations that play recorded classical music; most record companies that produce classical music; the Fifty-Seventh Street hype—that is, the whole promotional set-up of the concert-management business; high prices for musical events; high school and college music teachers.

But there are elements both more specific and more vague than that. Formality is one, the formality of the concert, which specifies not only a mode of dress, but also a mode of behavior (don't enter or leave while the music is playing, do sit quietly, do applaud at certain specific times, don't boo, don't smoke, don't drink, don't lie on the floor). Prerequisite knowledge is another—for example, the idea that you have to know something about records before you can intelligently buy a record.

But perhaps the major element of the establishment, as seen through jaundiced eyes, is its customary audience. Whether it is the academic, intellectual group that turns up at concerts of modern or early music, the essentially square middle class at the symphony concerts, or the socialites, tourists, and vocal nuts at the opera, it is not an audience for which rock-oriented young people are going to feel any empathy. Perhaps that is why they turn up at other more *outré*

(but still musically intellectual) events—Indian music or the exotic avant garde—when they *do* want to experiment with more substantial music. This is something for some concert sponsors to ponder: if they are hungry for audiences, a reversal of attitude might get them the disestablished one.

What *won't* get the young audiences is precisely what is being tried now by far too many obviously panicked packagers of musical culture: the mixing of serious and popular music on the misbegotten theory that if some slender musical-technical relationship can be established between them, consumers of the one will happily become consumers of the other. But this is nothing more than the establishment talking down. And if you find it embarrassing (as I do) to be identified with those who are doing the talking down, think how you might feel if you were the one being talked down to. However it may be expressed, twisted, or oddly packaged, the dominant attitude of youth is an idealistic one. What they object to is seeing something good overlaid with a thick coating of hype, formality, phoniness, advertisingese, or an adulterated version of what is already theirs. Offer it to them pure, clean, and without hooks, and some of them might just buy it.

\* \* \*

THE basic research tool of the record collector is the discography, for only there may he expect reasonable completeness and accuracy when he must determine, for any specific area of music, who recorded what. Discographies of various sorts are published frequently in both magazine and book form, and one of the best and most useful I have yet seen has just been issued. Put together by Steven Smolian, it is called *A Handbook of Film, Theater, and Television Music on Record, 1948-1969* (\$6.00 postpaid in the U.S.; \$7.00 postpaid elsewhere, from The Record Undertaker, P. O. Box 437, New York; N. Y. 10023).

The handbook is made up of two softbound volumes, an alphabetical listing and an index, slid into a binder (from which they are removable). The index is by record company and by composer, the alphabetical listing by show or film title. The information given includes the type of production (N. Y. Original Cast, Later Broadway Cast, London Original Cast, etc.), the date of production, the composer, the record company, mono and stereo numbers, the date of issue, and, in a remarkable number of cases for such difficult-to-obtain information, the date of deletion. An excellent discussion of the discographical methods and some wise tips on the collectors' market preface the listings. I frankly don't see how anyone interested in show and film music on records can do without it.

STEREO REVIEW



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秋葉原

## AUDIO TOKYO

By TOBY SMITH

ANY American visitor to Tokyo who has even a passing interest in stereo equipment cannot afford to miss a trip to the northwest section of the world's largest city. Known as Akihabara, this four-block area is not only a bargain hunter's dreamland—with a 30 to 35 per cent discount on everything—but also a wonderfully chaotic, yet fascinating, place to see.

Japan has long been known for its fine electronic products; Akihabara has all the familiar ones, plus a lot of others you can't even pronounce. Merchandise ranges from the tiniest transistor radio to complete stereo systems, and all at very low prices.

The chief commodity being sound, Akihabara doesn't let you forget it. The dozens of small stores lining narrow alleyways keep their musical wares going full volume for 18 hours a day. There is such a deafening volley of music and voices ricocheting across the eight-foot passageway that winds between the facing storefronts that you can almost feel yourself being swayed by sound waves. It's hard to tell where one store ends and another begins, for every shop's awning virtually overlaps the next. And none of the establishments, as far as I could tell, have names.

When you finally get used to the deafening decibel level, you get around to noticing the great amount of dicker-ing and dealing going on inside (and outside) each store between customer and salesman. Just a thought, but if shopkeepers in Akihabara knew as much about semantics as they do about electronics, they wouldn't turn away so many potential patrons by standing in front of their shops and shouting to *gaijins* (foreigners) "Hey, wanna buy cheap goods?" What they mean, of course, is reasonable or quite inexpensive equipment. Low prices and high quality have gone hand-in-hand in this shopping district since the post-war years, when the shops first took root.

I went into one of the nameless audio emporia and checked some price tags. From what I know about U.S. prices, a lot of the Japanese gear was going for just about U.S.-dealer cost. In addition, there was a selection of Japanese name-brand equipment that is not, for one reason or another, being exported to the U.S. I stopped and watched a Japanese couple eyeing an expensive turntable. A salesman approached them and the bargaining began. The couple questioned the clerk rat-a-tat-tat style for a few minutes and then the clerk paused. He squinted his eyes, stuck his finger in his ear, and looked grim. Heads were shaking, and then the voices rose once again at an even more rapid speed. This continued for several more minutes until finally the clerk stopped and smiled. A sale.

The alley stores make up the largest part of Akihabara. About every fourth one of these is a shop which specializes in one of two things—fans or washing machines. Both items, like all the electronic gear, are always switched on. The fans, all with dazzling blue blades, are best sellers, for a summer in Tokyo can often seem like a summer in the Sahara. The washing machines, something comparatively new to the Orient, are a great attraction to the Japanese. Many local shoppers will stand and watch for hours on end as the washers rumble and agitate on the small sidewalks.

I walked over and went into one of the more fashionable, yet still noisy, two-story stores around the corner from an alley. I was immediately encircled by several hard-sell clerks. I got rid of them by putting my hand on my forehead, indicating that I was a browser. As I wandered about, an eager, neatly dressed clerk came over and asked me if I was from the United States. I nodded and he told me to follow him. What had I done, I wondered? I trailed him to a small back room, carpeted and lined with speakers, and he motioned me to-

ward a round, red pop-art chair. The next thing I knew, someone was putting headphones on me and I was listening to the *Firebird* Suite. It was magnificent. Two salesmen came before me, smiled and bowed. As I listened, I spun myself halfway around in the chair and my eyes caught something wedged between speakers on a shelf above me. There sat a bust of Beethoven wearing a headset identical to mine.

When the music stopped I removed the headphones.

"You like?" a salesman asked me.

"Sure," I said.

"Perhaps some Elbis Plesley?"

"Uh, no," I said, "that was fine," and I moved on, thanking them generously.

Still soothed by the sounds of Stravinsky, I walked into a neighboring store only to be assaulted by the wailing of a Japanese rock singer. I was about to leave when I spotted an American ready to make a purchase. Talking to him, I learned he was from Pittsburgh and had come to Japan for Expo '70. He was in Akihabara to buy equipment and had picked up some components at what he characterized as "a steal."

"You bought anything?" he asked me.

"Not yet," I said.

"Well, I'll give you a hint. Be sure and bargain with them. It's easy. They expect it."

"Thanks," I said, watching him carry a receiver out the door.

GETTING a large-size purchase home may be Akihabara's only drawback. Unless you have a car, taking two speakers or any number of components back to your hotel room can be a hassle. Akihabara is located on the Hibiya Subway Line, ten minutes from the Ginza, but trying to lug something on the subway (forget it if it's rush hour) can be difficult if you don't have help.

By the time I left the helpful gent from Pittsburgh, my money was burning a hole in my pocket. I walked back over to the alley complex and studied a tape deck. It had a 45,000 yen (\$125) price tag on it.

"Real good buy," said the stooped little proprietor who popped up suddenly at my side. "Cheap."

"Maybe," I said, "but too high." I raised my hand in the air above my head.

"I sell you." He wrote 43,000 yen down on a piece of paper and handed it to me. "Good, no?"

"No, I don't think so," I said.

"OK, OK." He wrote 40,000 down. No dice. I looked around the store, feigning a yawn, and then back to the man. Might as well go for all the marbles, I thought.

He scratched his head, gave me a toothy grin, and then scribbled again—38,000.

"You take?"

I took.

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Until recently, the world's fastest bookshelf speaker was the **Rectilinear X**.

Now it's the **Rectilinear Xa**, which is our new model number for the identical system with some minor modifications.

This model change isn't an exercise in planned obsolescence, just as our eccentric use of the word fast isn't an advertising gimmick. They both express our deep concern about *time delay distortion*, a phenomenon blithely ignored by most speaker designers and taken seriously only by a few egghead engineers.

Time delay distortion occurs when a speaker doesn't "speak" the instant a signal is fed into it but remains silent for a tiny fraction of a second. This tends to blur the reproduced signal, especially in a speaker system with several drivers, each of which has its own different time delay. Typically, the woofer is slower to speak than the midrange, which in turn is slower than the tweeter. Crossover networks further complicate the problem. The overall result is an audible loss of clarity.

Our solution in a three-way system such as the **Rectilinear Xa** is to use a 5-inch midrange speaker with exceptionally low time delay (one that speaks exceptionally fast in response to an input signal) and let it carry nearly all of the music. The woofer contributes only to the extreme bass (below 100 Hz) and the tweeter only to the extreme treble (above 8000 Hz). Thus the time delay

differences are kept out of the range where most of the audible information is. The greatest benefit is that the critically important upper bass and lower midrange are reproduced by a fast midrange driver rather than a slower woofer, as in other bookshelf speakers. That's what makes our design the world's fastest.

Now, the main difference between the **Rectilinear X** and the new **Xa** is that the relatively unimportant time delay in the woofer (below 100 Hz) was further reduced by certain changes in the crossover network. This makes the speaker faster still, and some very small irregularities in the frequency response were also flattened out in the process. It's a small improvement, but we feel that

anyone who pays \$199 for a bookshelf speaker is entitled to our latest thinking.

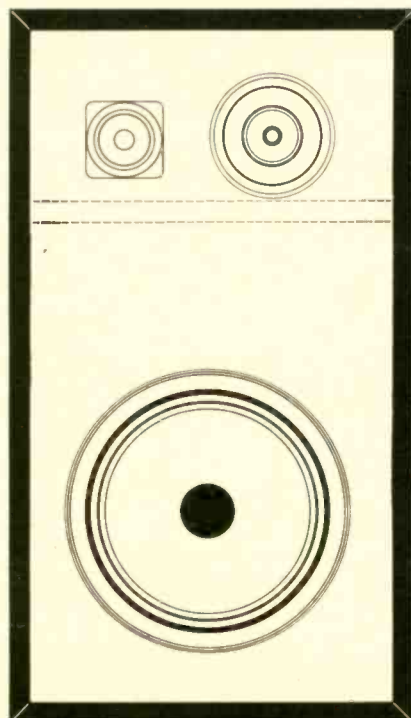
How does the new **Rectilinear Xa** sound? We're hopelessly prejudiced, so we'll quote Hirsch-Houck Laboratories instead (Equipment Test Reports, *Stereo Review*, June 1970):

"... We preferred the **Rectilinear Xa** in the areas of clarity and definition. In fact, we have heard few systems capable of comparable sonic detail; and most of them lack the bass of the **Rectilinear Xa**."

In other words, one of the leading authorities in the business is telling you that if you want supreme transparency *plus* bass, you're just about reduced to the **Rectilinear Xa**.

Arguing with that is like fighting city hall.

(For more information, including detailed literature, see your audio dealer or write to Rectilinear Research Corp., 107 Bruckner Blvd., Bronx, N. Y. 10454. Canada: H. Roy Gray Co. Ltd., Markham, Ont. Overseas: Royal Sound Co., 409 N. Main St., Freeport, N. Y. 11520.)



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*A view of the Paris boulevards in 1789 (after a painting by St. Aubin).*

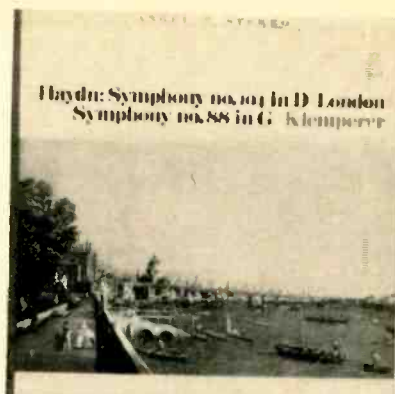
# Haydn's Symphony No. 88

THE Haydn revival of the past quarter-century, largely spurred by the research, manuscript discoveries, and editing of that indefatigable Haydn enthusiast H. C. Robbins Landon, has brought about an extraordinary expansion of the performing repertoire of this composer. Little-known Masses, concertos, operas, and symphonies by the Austrian master have been rescued from oblivion, performed, and recorded. Where the symphonies are concerned, only a handful of Haydn's more than one hundred are not available on microgroove recordings. (Of course Haydn himself was extremely helpful in this regard: he fashioned his symphonies to just the proper length for a single LP side!)

Despite the discoveries and recordings, however, the status of the Haydn symphonies in the concert hall remains virtually the same as it was a generation ago. Only a handful of them are regularly performed, and these are generally from among the composer's final works in the form, the dozen symphonies he composed for two separate visits to London under the aegis of the British

impresario Salomon. But an equally rich lode of symphonies was created by Haydn, about a decade earlier than the "London" Symphonies, for performance at concerts in Paris. The Symphonies Nos. 82 through 87 are the so-called "Paris" Symphonies, but their immediate successors were also composed for the French capital. Among the latter, the Symphony No. 88, in G major, has long enjoyed repertoire status both in the concert hall and on records—probably the earliest of Haydn's symphonies to do so.

Haydn composed his Paris symphonies for presentation at the concerts of the *Loge Olympique*, a fashionable and highly exclusive French institution that was associated with Freemasonry. One could become a subscriber to the concerts only after solemn examination and ritual; admission to the hall was by paying an annual fee and wearing an identifying badge—a silver lyre on a sky-blue background. Beginning in 1786, the concerts were given in the Salle des Gardes of the Palace of the Tuileries, the orchestra being comprised of carefully selected amateurs who sat along-



The current catalogs offer three recordings of Haydn's *Symphony No. 88* that are almost equally genial, responsive, and spontaneous. These are the performances by Leonard Bernstein (Columbia), Otto Klemperer (Angel), and Bruno Walter (also Columbia). The couplings offered with each may determine the choice for the buyer.

side professionals. A specially erected stage was placed in the Salles des Gardes, and Queen Marie Antoinette and the lords and ladies of her court attended regularly. Formal attire was carefully prescribed, and the musicians were dressed in brocaded coats, lace ruffles, and plumed hats that they were allowed to place on benches by their side as they played. Each one, too, had a sword at his side. It was in this elegant ambiance that Haydn's *Symphony No. 88* had its first performance in 1787 in Paris. Two years later, when the tocsin of the French Revolution sounded, the concerts of the *Loge Olympique* came to an abrupt end.

The symphony opens with a majestic *adagio* introduction. Short, full-bodied chords set a formal tone to the proceedings, but it is quickly dispelled with the entrance of the main *Allegro's* sprightly principal theme, first stated by the strings. The second subject, richer and more chromatic, appears in the dominant key of D Major, and the exposition is rounded off with a return to the rhythmic outline of the first theme. The development begins with some gentle play on a rippling string motive that accompanied the first full orchestral statement of the main subject. This figure is tossed from key to key, sometimes in the minor, sometimes in the major, and is passed from one section of the orchestra to the other in one of Haydn's most fanciful and inventive developments. The recapitulation brings back the material of the exposition, and there follows a martial coda.

The slow movement, marked *largo*, is an impassioned premonition of early Beethoven slow movements. Three times during the course of the movement the graceful singing theme is interrupted by a *fortissimo* outburst from the full orchestra.

In the Minuet we return to the formal-sounding design of the *adagio* introduction. With little ornamental flourishes, the movement has a courtliness that immediately suggests the circumstances of its creation. But in the Trio Haydn suddenly takes us to a totally different environment: with its droning bass under the flowing theme, the music suggests a pastoral countryside, and there is even a hint of bagpipes. After this charming

interlude, the music returns to the formal sound of the Minuet proper.

The Finale, *allegro con spirito*, is one of Haydn's most vivacious and sparkling. Its bubbling principal theme becomes the underpinning for a merry rondo, and it makes many welcome returns during the course of the movement. Some of these returns are enhanced by suspenseful preparation, anticipating a device much favored by Beethoven. The end of the symphony is rollicking.

**H**ALF a dozen recordings of the *Symphony No. 88* are listed in the current Schwann catalog. One of them—Scherchen's—predates the stereo age, and is not in any case an irresistibly convincing performance. Each of the other five versions, however, has its own claim to distinction, and choice among them is a personal matter.

Though their recordings are carefully organized and painstakingly detailed, I find both Eugen Jochum and Fritz Reiner too rigid in their approaches: the element of humor is slighted by them both. And that leaves Leonard Bernstein (Columbia MS 7259), Otto Klemperer (Angel S 36346), and Bruno Walter (Columbia MS 6486). All three of them offer genial and responsive performances that communicate a high degree of spontaneity. In the case of Klemperer this may surprise some, for he is generally thought to deliver sober, unbending performances—and yet his recording of this symphony is all one could wish for in the way of relaxation. For their part, Bernstein and Walter are similarly satisfying, offering performances that are alert and vital.

A choice between Bernstein, Klemperer, and Walter might be made on the basis of their respective couplings. All three offer another Haydn *Symphony* on the reverse: Bernstein No. 102, in a superb performance and recording; Klemperer No. 104 in a good but not exceptional reading; and Walter No. 100 ("Military"), in a perceptive account that is somewhat marred by strident and harsh recorded sound.

Tape enthusiasts have to content themselves with one of the available disc versions, for apparently none of these recordings exist on tape.

REPRINTS of the latest review of the complete "Basic Repertoire" are available without charge. Circle No. 160 on reader service card.

It's kind of a dumb-looking thing, but the ear is still the best listening device around. Which should tell you something about the shape of a Yamaha speaker.

True, the ear receives sound and a speaker reproduces it. But the basic principles of physics and design are essentially the same. There is a place in the middle through which the sound travels. Surrounding it are planes of

varying dimensions. There is no symmetry.

This is because sound is not symmetrical. It bends. So symmetrical shapes—ears or speakers—will confine sound to an area that won't let it bend naturally. (Cup your ear and see how directional and different things sound.)

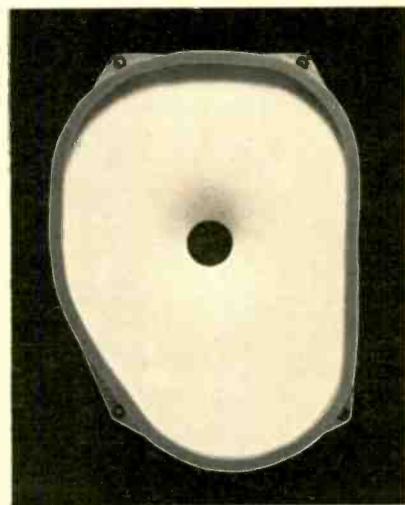
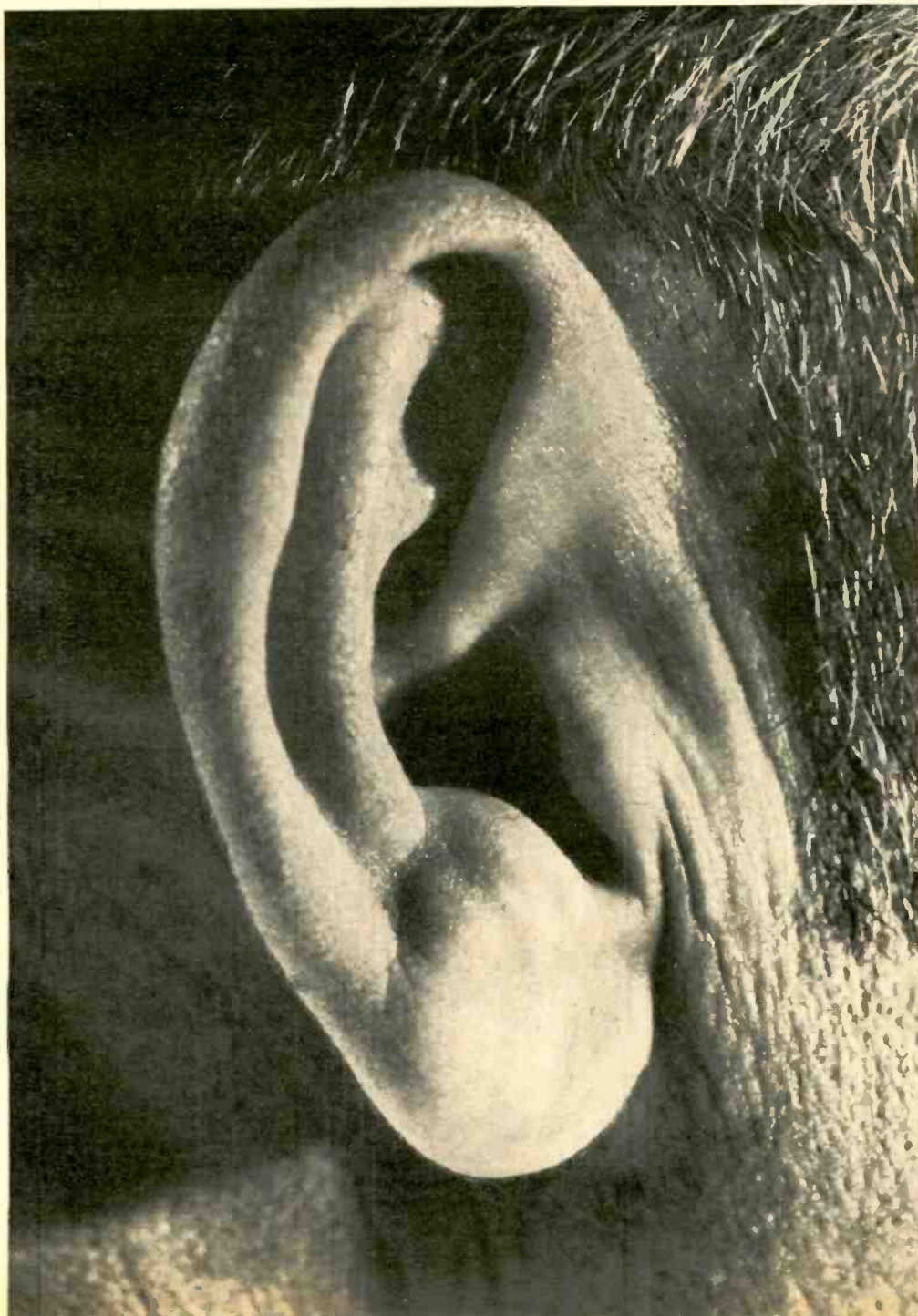
The irregular shape of a Yamaha speaker gives sound waves of different length a place to go. Long waves go to the long parts, medium

waves to the medium parts and so on.

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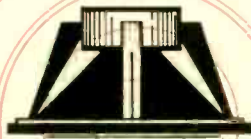
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# HOW HIRSCH-HOUCK LABORATORIES TESTS LOUDSPEAKERS

The testing of loudspeakers is not so much a matter of how to make measurements, but rather of which factors to measure—and then how to interpret the data thus gathered

By JULIAN HIRSCH

**M**EASUREMENTS are important in the design and quality control of loudspeakers, but to what degree do they provide information about how a system will sound in a listener's living room? Based on our experiences in evaluating loudspeakers over the years, we at Hirsch-Houck Laboratories tend to view the measurements made by most loudspeaker manufacturers as providing useful guidelines, but certainly not precise descriptions as to how well (which means how accurately) a speaker performs. We are interested primarily in how a speaker *sounds*, in how closely it approaches the ideal

of absolutely faithful conversion into sound of the electrical signal fed to it. Conventional speaker measurements, including some lately publicized new techniques, simply are not able to test for this information, nor to convey it to the average reader. Even for an expert in the field, an adequate description of a speaker's performance based only on objective data would require amassing a formidable amount of information which would still not tell him, except in very general terms, how the speaker sounds. This is not to say, however, that the many measurements employed by a designer are not

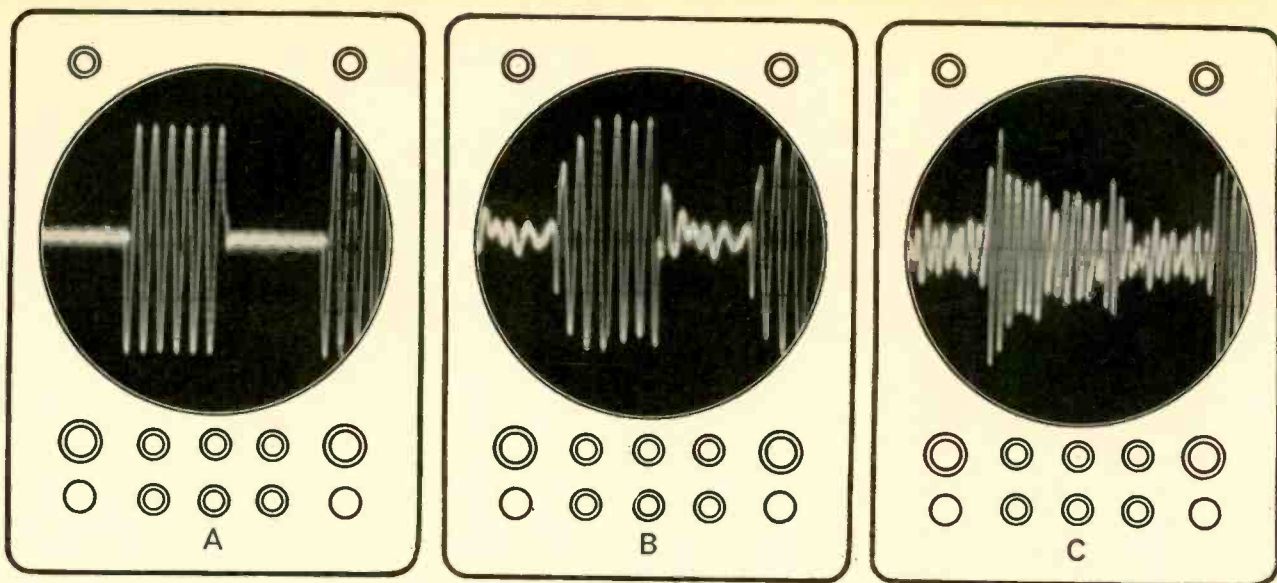


Fig. 1. Tone bursts are used to evaluate a loudspeaker system's response to transient signals that occur in normal program material. The burst at (A) is the signal as produced by the generator; (B) is the signal picked up by a microphone from a speaker with a fairly good response. Signal (C) was produced by a speaker with poor transient response—this would be audible on music.

also useful in testing, for they can frequently pinpoint aspects of a speaker's sonic character whose origins could only be guessed at through listening.

What, then, are those *measurable* aspects of a speaker's performance that relate to its sound? In the view of H-H Labs they are:

1. frequency response (steady state)
2. spatial characteristics (dispersion as a function of frequency response)
3. transient response (both amplitude and phase characteristics)
4. non-linear distortion (harmonic, IM, and FM).

Each of the above general categories has a number of sub-divisions to deal with inevitable complexities. A good example of how complicated things can get is provided by the "simple" matter of frequency response. Even a standard specification such as " $\pm 5$  dB from 40 to 15,000 Hz" is far from fully descriptive. The audible frequency response of any speaker is a function of the angle between it and the listener. Usually the directly-in-front (or on-axis) measured response is offered as *the* frequency response, since it usually has the widest range. At off-axis angles, the output level at high (and, to a lesser extent, middle) frequencies falls off. Sound leaves a speaker in many directions, and in a normal listening room it is eventually reflected from many surfaces. Therefore, if the listener is sitting far enough away from the speaker, what reaches him is a more or less homogenized or integrated sound. The *effective* frequency response of a speaker is therefore much more a function of its total acoustic output power in all directions than of its pressure response along any one axis.

There are various methods of evaluating the directional or *polar* frequency characteristics of a speaker, and these are our second important area of investigation. One standard procedure is to rotate the speaker slowly in an anechoic chamber while feeding in various fre-

quencies. A microphone picks up the output of the speaker and feeds it in turn to a synchronized graph recorder. The more angles and the more frequencies used, the greater the difficulty of interpreting the curves. On the other hand, the fewer the angles and frequencies, the greater the chance that critical areas will be missed. Of course, a computer could be used to average the curves, but would the results bear any provable relationship to what one hears in a real-life situation?

There is also a method of measuring the *total* output of a speaker, in all directions, and obtaining a single plot of its response. If a reverberant chamber (one whose surfaces reflect essentially all the sound impinging on them) is used, we can obtain a response curve that more closely approximates how a speaker performs in a normal listening room than an anechoic measurement does. However, real listening rooms are neither fully reverberant nor fully anechoic (both environments would be unpleasant for listening to music). Thus, measurements made under either anechoic or reverberant conditions can give, at best, only a clue as to what we will hear in the home.

Transient response, which is the third item in the list above, is related to frequency response. Frequency-response measurements are usually made with steady-state (continuous) test tones. Even when the test-tone frequency is swept automatically over a wide range, as it usually is, the speaker is effectively responding to a single sine-wave tone. But normal program material—music and speech—is largely *transient* in nature: both amplitudes and frequencies change constantly and rapidly. And there is every reason to believe that the ability of a speaker to respond accurately to transient inputs is necessary to produce good sound quality.

There are several types of test signals used to reveal a loudspeaker's reaction to transient audio material. Most of these unfortunately do not yield numerical results

conveniently. Perhaps the most widely used is the *tone burst*. This is a short, repetitive burst of a single-frequency sine-wave signal. The electrical signal to be fed to the speaker typically appears on an oscilloscope as in Fig. 1 (A). Because of its mechanical inertia, a speaker usually requires an appreciable time (measured, to be sure, in milliseconds) to build up to its full output, and inertia may also cause it to "ring" for some time after the cessation of the burst. The acoustic output of a typical speaker in a tone-burst test is shown in Fig. 1 (B). This is a rather good response—a speaker with poor transient response will often produce an output similar to that shown in Fig. 1 (C). Although numerical values cannot readily be assigned to tone-burst responses, sweeping the oscillator frequency through the full range of the speaker makes it possible to detect severe ringing, spurious output frequencies, or other aberrations. Most speakers ring to some degree at certain frequencies, and the number of frequencies at which ringing occurs, as well as its severity, provide one basis for judgment of quality.

Other transient test signals, such as pulses and square waves, can also be used. They are, if anything, even more difficult to interpret than tone bursts, and have therefore had limited acceptance as testing methods. Perhaps the most completely transient test signal is random noise. Although noise (unless pulsed) does not lend itself to evaluating transient response, it can be used for aural detection of frequency-response variations.

One form of transient distortion that has received some attention in recent years is *time-delay distortion*. It is the result of a speaker system's propagating different frequencies in a complex signal at slightly different times. It appears that much of what has been called "phase-shift" distortion is really time-delay distortion (a small time delay can be equivalent to a very large phase shift). Promising as the study of time-delay distortion is, it requires a rather specialized and costly test setup, and thus far has excited the interest of few engineers.

The fourth significant factor we investigate in speaker testing is *non-linear distortion*, which results in the creation of frequencies not present in the original signal. One common form of non-linear distortion, harmonic distortion, increases rapidly below about 100 Hz, where speakers become non-linear because of large voice-coil/cone excursions. Above 100 Hz, harmonic distortion becomes too small to be conveniently measured. Inter-modulation distortion is another result of non-linearity, but it is very difficult to measure meaningfully, particularly in multi-speaker systems. In making IM measurements, a different choice of test frequencies could completely alter the results—in contrast to the case with amplifiers, which are relatively insensitive to changes in the test frequencies used for IM measurements.

Another type of non-linear distortion is the so-called

"Doppler" distortion, a frequency modulation of high frequencies by high-amplitude, low-frequency signals that occurs when both are being handled by the same driver. Other factors being equal, Doppler distortion is minimized by high-efficiency speaker designs that require less cone excursion from the low-frequency speakers for the same acoustic output, and by the use of a low crossover frequency so that the woofer is not required to handle high frequencies. Doppler distortion is real, and it is readily detectable with a spectrum analyzer, but I am not convinced that it can be *heard* under normal listening conditions.

**I**N testing speakers in H-H Labs, we perform a number of measurements in the areas described above. They are necessarily limited in scope (a really complete speaker test facility is very large and costly), but have been chosen to extract the maximum of useful information that relates to how a speaker sounds. Since neither an anechoic or a reverberant environment is completely realistic for evaluating the listening quality of speakers, we do our testing in a normally "live" room of about 2,800 cubic feet.

We place the speaker to be tested against a wall, 24 inches above the floor if it is a "bookshelf" speaker, or on the floor if it is designed to be used in that position. A single calibrated Altec 21BR150 capacitor microphone is located on the center axis of the speaker grille, and 12 inches in front of it. Three Shure 578 microphones are suspended from the ceiling at various empirically determined positions. All four microphones feed into a Shure M68 microphone mixer whose output drives the graphic recorder of a General Radio 1350-A Response Plotting System. The test signal is supplied by a General Radio oscillator coupled to the graphic recorder, and sweeps from 20 to 20,000 Hz in 1.2 minutes. This signal is fed to a Dynaco MK IV power amplifier that drives the speaker under test. The speaker is fed either a constant-level 0.78-volt signal (8-ohm speaker), or a 0.55-volt signal (4-ohm speaker).

For the initial calibration of our setup, a speaker was driven with an octave (approximately 1,000 to 2,000 Hz) of random noise, and the mixer gain controls were adjusted so that each microphone delivered the same output voltage to the recorder. For the purposes of the tests we perform, this standardized gain setting results in a composite response measurement through the room, at various distances and angles (vertical and horizontal) relative to the speaker. In this respect, it is more like a reverberant measurement than a single-axis anechoic measurement. The resulting response curve is quite irregular, due to standing waves and interference patterns in the room. And at low frequencies, room resonances obscure the true speaker response. The high frequencies (above several thousand hertz) are picked up in the main by

the close-up Altec microphone, since they are absorbed appreciably before reaching the more distant microphones (whose responses are, in any event, neither as wide nor as flat as that of the calibrated Altec mike).

After making the first sweep, we relocate the three Shure microphones to three other positions (originally determined by experiment, but now standardized), reset the mixer gains so that each microphone contributes equally in the new positions, back up the chart paper to its start, and repeat the measurement. A large percentage of the dips and peaks that occur from 300 Hz to several thousand hertz cancel each other in the two measurements, showing clearly that they are a property of the room and not of the speaker. By drawing a line averaging the two curves, we obtain a single curve that is essentially the response of the speaker, and one which is not influenced by more than a couple of decibels by room reflections. A typical composite response curve is shown in Fig. 2. The two lighter curves are the actual results of the two test runs; the heavier curve is the averaged response of the speaker.

The highest frequencies, which are picked up by the single Altec microphone, measure identically in both test runs. Knowing the calibrated pressure response of the microphone, we correct the curve accordingly. The correction is applied principally to the frequencies above 9,000 Hz, and we believe that, overall, we obtain a reasonably accurate portrayal of the speaker's output up to the 15,000-Hz upper limit of the microphone.

To eliminate the effects of room acoustics below 300 Hz, we make comparison measurements between the speaker under test and a reference speaker that has been calibrated in a large anechoic chamber. The single Altec microphone used for this test remains in a fixed position, and each speaker is placed in the same location while its response below 300 Hz is measured. Since room resonances affect both curves similarly, we can then take the difference between the two curves and add it to the known curve of the reference speaker to obtain a true bass-response curve for the speaker under test. This curve is essentially independent of the boost given to low bass by room placement, since the reference speaker has been calibrated in an anechoic environment.

When all the corrections have been applied, the resultant curve, is, in our opinion, about as accurate a representation of a speaker's frequency response in a

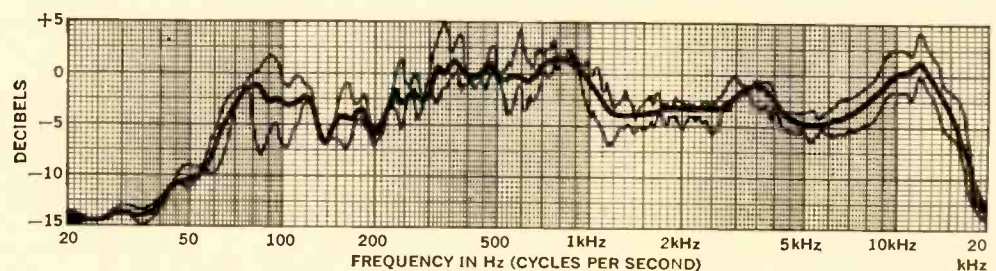
normally "live" room as can be made. It does not take into account the polar response of the speaker at the highest frequencies, but the multiple-microphone technique does in effect integrate the speaker's entire output at middle frequencies. We make a single close-up measurement of polar response at several angles for additional information, but it is usually too irregular to be meaningful when taken out of context.

For tone-burst measurements we use only the Altec microphone, which is placed about two feet in front of the speaker grille. Room reflections cause a certain amount of "clutter" between bursts, which may obscure low-level ringing. We surround the speaker and microphone with absorbent padding to minimize this source of interference, though with limited success. However, the behavior of the speaker during the first few cycles and just after the end of the burst is of primary importance, and this is not seriously affected by room reflections.

To carry out the test, we manually tune the audio signal generator—which is being gated (automatically switched on and off)—between 100 and 10,000 Hz, while observing the waveform on an oscilloscope connected to the microphone output. The burst shape changes constantly with frequency, but with experience it is easy to differentiate between minor room effects and speaker aberrations. Sometimes, in systems with two or more drivers, we find severe dips in response at certain frequencies that resemble tone-burst distortion. If the response dips were an inherent property of the system rather than an interference effect, moving the microphone a few inches should not change the response. Usually, however, the picture changes drastically with a slight movement of the mike. This is evidence of a cancellation between the acoustic outputs of two drivers at the crossover region. It is a highly localized effect and cannot be considered poor transient response. The tone burst shown in Fig. 1(B) was made on the speaker whose response was measured for this article (an excellent low-price unit), while Fig. 1 (C) was made with a cheap speaker, definitely not of "hi-fi" quality.

Low-frequency harmonic distortion is measured with the single microphone placed 12 inches in front of the woofer. The speaker is driven at a 1-watt nominal level (2.8 volts input signal for an 8-ohm speaker, 2 volts for a 4-ohm unit), and the distortion is measured in the microphone output at a number of discrete frequencies,

*Fig. 2. The differences between the two light curves are the result of room-acoustics effects; the heavier curve is the averaged response representing the actual performance of the speaker system.*



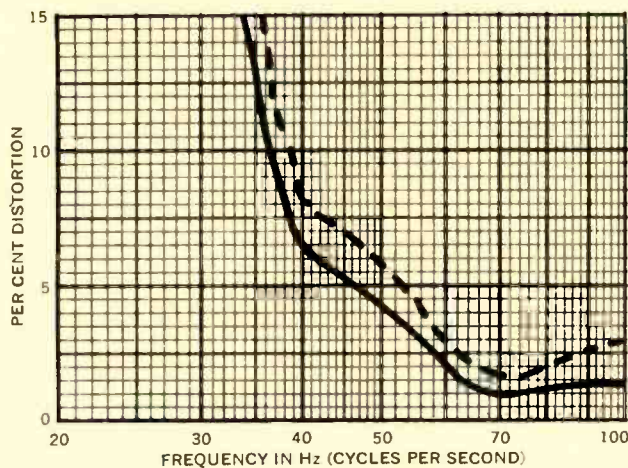


Fig. 3. The distortion of a speaker rises quite rapidly as the frequency of the test signal is lowered. With a well-designed system, distortion varies only slightly with input power (solid line, 1 watt; dashed line, 10 watts) until overdrive occurs.

usually from 20 to 100 Hz. Sometimes an inefficient speaker does not produce enough output at 1 watt to permit accurate distortion measurements (low-level distortion is easily masked by ambient noise). When this happens, we increase the power to 10 watts. We would prefer to use the same power for all speakers, but not all speakers can survive 10 watts at very low frequencies without damage or excessive distortion. Fortunately, a considerable difference in drive level has little effect on the distortion curve. The distortion of a test speaker at 1 and 10 watts is shown in Fig. 3.

All these measurements, which are not necessarily repeatable in another environment nor by other test labs (although they are often remarkably close to data we have received from manufacturers and other sources), have a unique advantage for our purpose. Since every speaker is tested under the same conditions, at the same levels, and with constant calibration at all points in the system, we can make data comparisons between speakers that are quite valid. If one speaker has more highs than another, or has a "hole" somewhere in its response, it shows up clearly and repeatably in our test measurements.

**A**LL our tests, as I have said, represent an effort to isolate those properties of a speaker that we can hear, and that distinguish it from other speakers. As I implied at the beginning of this article, listening is the *only* way to determine what a speaker sounds like. The real problem lies, then, in removing—or at least minimizing—idiosyncracies of human judgment from listening tests. One way of doing that would be to make a high-quality recording of a group of musicians and play it back in such a manner that the listener can hear the live musicians and the recording alternately. If done skillfully, this can be a very impressive and revealing demonstration of the strengths and weaknesses of a speaker

system. The inference in this sort of comparison is that a speaker that can reproduce sound indistinguishable from the original program must be a perfect—or nearly perfect—reproducer, at least within the frequency and dynamic-range limitations of the test. However, the expense and inconvenience of having a well-rehearsed group of musicians on hand at all hours for comparisons obviously rules out this technique as a means of serious speaker evaluation.

Edgar Villchur, formerly of Acoustic Research, Inc., developed an ingenious technique by means of which one may, in effect, have "live" sound, if not live performers, on hand for "live *vs.* recorded" comparisons at any time. The comparison could be performed in any ordinary room, without elaborate instrumentation. Mr. Villchur's technique was presented to the Audio Engineering Society at their 1960 Convention, and was described in that organization's *Journal* (October 1962, Volume 10, No. 4). He initially used electrically generated random noise as a test signal (since it contains a wide spectrum of frequencies and is highly transient in nature). The noise signal, as played through a reference speaker, became in effect the "live" program. Using the setup shown in Fig. 4(A), a two-track recording was made on a high-quality stereo tape recorder. On Track 1 was recorded the same original electrical noise signal used to drive the reference speaker placed, with the microphone, in an anechoic chamber. The "live" sound produced by the reference speaker was simultaneously recorded *via the microphone* onto Track 2 of the tape.

Consumer's Union later took this test method one step further. They successfully substituted a musical program for the white noise—and that is the type of "live" signal source now used by those (including H-H Labs) who employ the live-*vs.*-recorded test technique. The microphone must be carefully positioned in the anechoic chamber so as to pick up a signal (from the reference speaker) whose characteristics are as close as possible to the total acoustic power-output curve of the reference speaker. In other words, since in a listening room one hears a speaker's integrated or "homogenized" output, the signal picked up by the microphone should have the same frequency-response characteristics as would be produced by the loudspeaker in a normal room. This demands a trial-and-error approach to microphone location, and the better the dispersion of the reference speaker, the more suitable it is for this purpose.

The speaker under test and the reference speaker (the same one used in making the recording) are then located side by side in a normal listening room. The test setup shown in Fig. 4(B) is used. Track 1 of the tape recorder, which bears the electrical recording of the program, now drives the reference speaker, which serves as the "live" sound source. Track 2, which is the record-

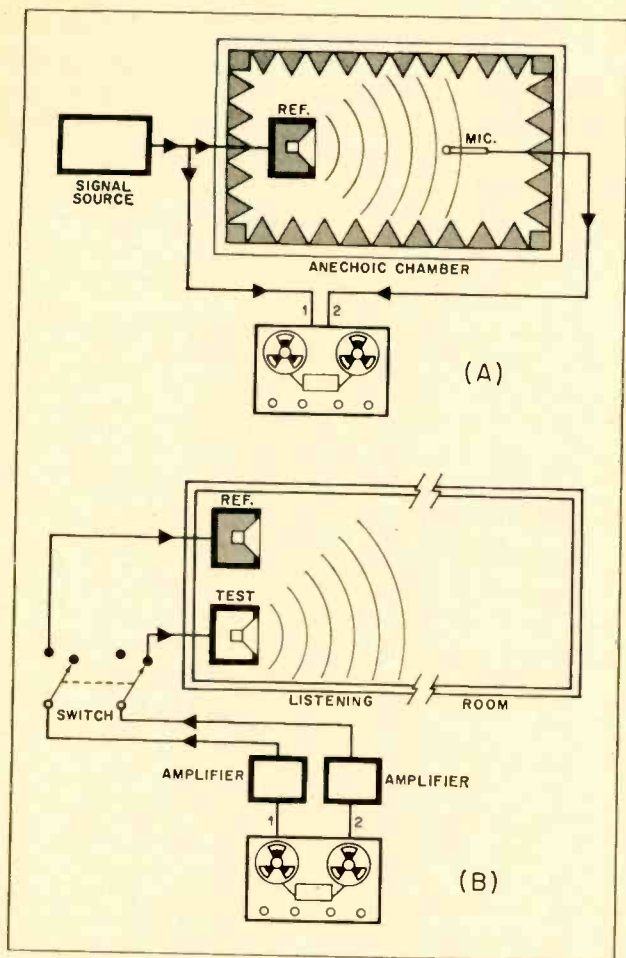


Fig. 4 (A) The program tape for the simulated live-vs.-recorded test is prepared by recording the sound of a reference speaker in an anechoic chamber. (B) The recording of the reference is then played through the speaker under test and compared with the reference speaker playing the original material. The better the test speaker, the better it will imitate the reference.

ing of the acoustic output of the reference speaker (or the electrical equivalent of the signal now being heard from the reference speaker), drives the speaker under test. By switching from one speaker to the other, with levels carefully matched, one can compare the "live" sound with the same sound produced by the test speaker. Room-acoustic effects do not enter in, because both speakers are affected identically.

Insofar as the recording has been done perfectly and the speaker under test is perfect, the two speakers will sound identical. Note that this test does *not* demand that the reference speaker be perfect, nor that the listener judge which is doing the best job of reproducing program material. The only judgment called for is how well the speaker under test can imitate the reference speaker. Since the recording of the reference speaker is not perfect, even a perfect speaker (if such a thing could be made) would in some way sound slightly different from the reference speaker. But it usually turns out to be very easy to make a critical judgment as to how

well, comparatively speaking, the speaker under test imitates the reference speaker.

As long as it has been in existence, the simulated live-vs.-recorded test has been challenged by audiophiles and engineers who simply did not understand the logical premises involved. As we have tried to indicate, it is *not* simply an A-B comparison test on program material during which a listener is called on to state his preference for the sound of one speaker over another in comparison with some ideal "reference" speaker. The reference speaker functions simply as a source of reference sound, and *not* as an ideal system. As a matter of fact, it is simple to set up the switching so that the reference speaker tries to imitate itself. With that sort of test, we have found several other speakers that can do a better job of sounding like the reference than the reference speaker itself can. To restate the premise of the test: a wide-range, "colorless," or "neutral" speaker can obviously do a better job of imitating any other speaker than a speaker with any built-in coloration or frequency aberration can. Insofar as a speaker has no tonal characteristics of its own, it does well in the simulated live-vs.-recorded test.

For more than a year, we have been using such a test technique in our speaker work. Our reference speaker is a specially constructed three-way system (using the same drivers found in an Acoustic Research AR-5) whose excellent dispersion makes it quite suitable for this purpose. Any other wide-dispersion system with a smooth frequency response would have done as well. The half-track tape recording was made on a Magnecord 1028 running at 15 ips. The complete system response, including that of the microphone and recorder, was equalized to be flat within 0.5 dB from 100 to 15,000 Hz. Any good amplifier can be used to drive the speakers; currently we are using a Dynaco SCA-80. The program test tape, made in an anechoic chamber, contains, in addition to random noise, various musical selections of different instrumental sounds and male voice. Because of its limited size, the anechoic chamber used to make the recording was not truly anechoic below 200 Hz. The recording was therefore limited to a bandwidth above that frequency.

I must admit to having been most skeptical as to the worth of this method initially, principally because it involved considerable "cut and try" in making the recording, which seemed to dilute the fundamental objectivity that was the goal of the technique. We have now, to date, tested about twenty speaker systems with this set-up, and are most favorably impressed with the results. Even in the musical selections, it is a highly sensitive indicator of frequency imbalance. A few speakers have achieved almost complete success in imitating the "live" music. We were also pleased to find that this very sensitive method generally confirmed results obtained by our previous test procedures. However, some speakers (by no means inexpensive ones) whose sound seemed satisfactory but undis-

tinguished proved to be dismally deficient when set up to imitate the "live" sound. With the random-noise signal, all speakers tested fell well short of perfection, and it was relatively easy to identify the particular colorations heard. This goes a long way toward solving a basic problem with white-noise testing by ear: how do you know what white noise *should* sound like when colorations are added by even the best speakers? This test provides an unambiguous reference signal—there is no doubt as to what the reference speaker sounds like when reproducing white noise! There is also no doubt as to the differences one hears when another speaker tries to reproduce the same sound.

We believe that this simulated live-*vs.*-recorded comparison, while still not a perfect technique, is by far the most ingenious test yet devised for revealing small imperfections in speakers (it is certainly not needed to disclose gross faults). A major advantage of the technique is that it eliminates arguments about the relative importance of various measured factors in determining sound quality. It

is also an excellent method for comparing two speakers to see which comes closest to the original sound—but here we are once more at the mercy of subjective conclusions. When two speakers have slightly different colorations, who is to say which is the better? The answer is, it seems to us, that it really makes not too much difference. Any two speakers that pass the live-*vs.*-recorded test with flying (non)colors will prove themselves satisfactory in anyone's home, for the differences between them will be more than wiped out by the differences in acoustics between any two rooms they may be installed in.

To summarize, our speaker testing program involves an analysis of the data yielded by the measurements described above, the simulated live-*vs.*-recorded comparison, and extended listening to FM, records, and tape programs. From all of this we draw our conclusions as to the merits—and weaknesses—of a speaker. We believe that this sort of comprehensive approach results in the most meaningful evaluation of a speaker system in respect to how it is going to sound in a home music system.

## DO-IT-YOURSELF LOUDSPEAKER EVALUATION

**L**IKE most everyone else, I have my own ideas as to how a good speaker should sound, and I have found (fortunately) that the speakers that conform to these ideas also test out well in the simulated live-*vs.*-recorded comparisons I have made. But suppose you are trying to choose a speaker yourself, without access to the confirmation of a live-*vs.*-recorded comparison setup. Are there any purely audible criteria that can aid you in identifying a good or, for that matter, a not-so-good speaker?

To start with, it is advisable to forget the usual injunction to look for a speaker that "recreates the original performance," since you have no way of knowing what that original performance sounded like, to say nothing of what the engineers may have done to it in the recording process. Then there are three things to keep uppermost in your mind when listening: a good speaker's response should be (1) unstrained (low distortion), (2) smooth (no dips or peaks in the frequency response), and (3) well dispersed (even spatial distribution of mid- and high-frequency tones).

Thus prepared, your search for a good speaker becomes a process of identifying and eliminating the bad ones. For example, if a speaker thumps or booms, or sounds "tubby" when reproducing the male voice, it probably has a peak in the upper bass frequencies (80 to 150 Hz). This is fairly common in speakers at all price levels. Unfortunately, a listening room can exaggerate—or even create—this effect, so the speaker should be listened to in different surroundings if it seems to have this sound quality. If a speaker's mid-range is rough or peaky, it may sound harsh, strident, or perhaps merely bright and mildly irritating. Some speakers have a depressed mid-range response, which gives them a "distant" character that can cause some instrumental

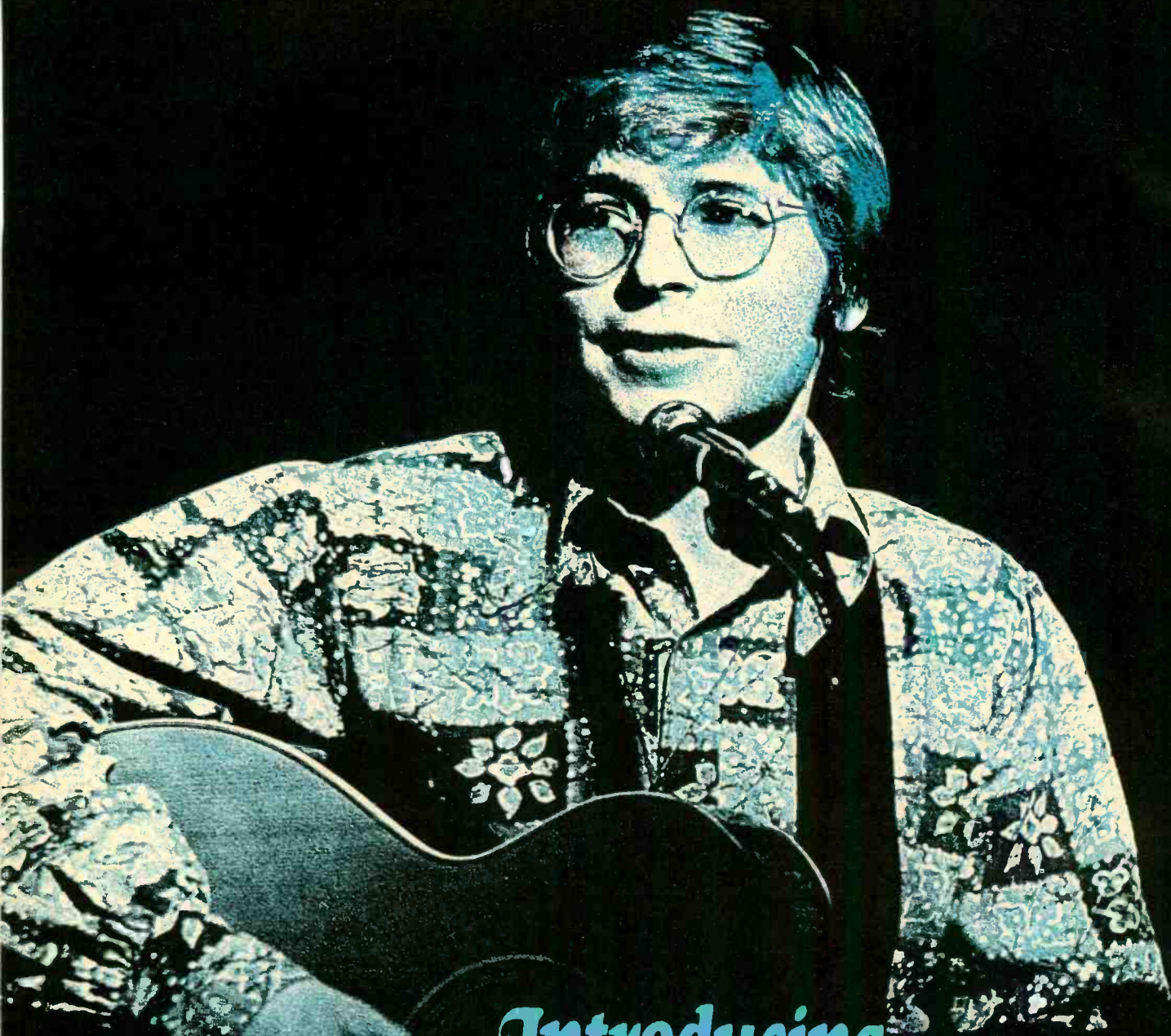
sounds to be submerged in the orchestral mass. Good definition requires a smooth mid-range response.

By the live-*vs.*-recorded test criterion, most speakers are strikingly deficient in their upper high-frequency response. A few really good ones we have tested fairly "sparkle" when driven with clean, wide-range material. This is quite different from the "bright" sound produced by peaked middles. Some people find this "sparkle" annoying, which probably accounts for the general acceptance of speakers which do not have a really good high end. But I suspect that these preferences are really the result of limitations in the program material. If the recording is clean and undistorted, the benefits of really good highs are undeniable. On the other hand, distorted highs in the program material are extremely unpleasant to hear, and should be filtered out—but by the amplifier, not the speaker.

A highly directional speaker can be very irritating to someone listening on its main axis. Wide dispersion, whether achieved by design of the drivers or by a so-called "omni-directional" system design, makes a speaker easier to listen to, but may sacrifice the highest frequencies unless some technique is employed to correct for their absorption in the room.

If a speaker sounds good at first hearing, try to listen to it for extended periods. I find that I can enjoy listening to some speakers for hours on end, while my tolerance for the sound of others is limited to a few minutes. It is interesting to note that a smooth speaker can be enjoyed at much higher true volume levels than one with an uneven or distorted response, and yet it does not seem, subjectively, to be as loud.

Those eager to explore this challenging subject further are referred to Larry Klein's "Guidelines to Speaker Shopping" in last year's August Speaker Issue. —J. H.



Introducing  
**JOHN  
DENVER**

*By Noel Coppage*



When three editors and one publisher independently and simultaneously confront one another on a bright Monday morning with the question "Have you heard the new John Denver album?" the editorial alert signal moves into the red, Noel Coppage sharpens his pencil, and (we hope) readers snap to attention. May we, then, introduce John Denver, a young singer-songwriter whose unaffected simplicity, easy self-confidence, and musical talent have already won him a great number of friends both personally and professionally.—*Ed.*

"**L**eaving, on a Jet Plane has opened a lot of doors for me, but I don't want to be just the guy who wrote that one song," John Denver said. "It isn't even the best song I've written. I think *Rhymes and Reasons* is a better song, *Aspenglow* is just as good, and *Isabel*—have you heard *Isabel*?"

John wrote *Leaving, on a Jet Plane* one night in 1966 while he was a member of the Mitchell Trio. He holed up in a Washington, D. C., hotel room while the other members of the trio and all the other people he knew in Washington were at a party.

"We were always being invited to parties," he recalled. "I was never the type to play around on the road, and time after time I'd be the only guy at these parties without a girl. This time I decided I'd had it with that. When the others left for the party at eight, I got a pound of salami and a six-pack of beer and my guitar and locked myself in my room. When they came back about midnight, I had eaten the salami, drunk all the beer, and written *Jet Plane*. It was a pretty productive night."

*Leaving, on a Jet Plane* was in Peter, Paul and Mary's 1967 album "1700," but was not released as a single until 1969.

"I don't know whether this is true or not," John told me, "but the story I heard was that the song really got started in Denver. A girl friend of one of the disc jockeys was crazy about the song, and she threatened to do something awful to the disc jockey if he didn't play it at least once every hour while his show was on. Requests started coming in, and it spread from Denver until Warner Brothers released it as a single. Then the whole thing just sort of took off.

"I guess there were two factors in my writing the song . . . first, I really enjoy meeting people. Frequently while traveling, doing one-night stands, I'd meet someone and it clicked, and I'd wish I had time to get to know them better. There was that, and then a personal factor, a girl I cared about. Everybody has to say goodbye to someone he cares about sooner or later, and when they go away, they often fly."

John is not a lapel-grabber who pins passersby to the wall with non-stop monologues. But if the subject is music and he gets "wound up," as he puts it, he can talk a blue streak.

"I love to record," he said. "It's different—different

from performing before an audience. Unless you are actually recording a 'live' concert, you have to take an entirely different approach. But for me there's nothing quite like having people out there, being able to see if you are reaching them.

"I've always considered myself a little shy about meeting people. But I know I can touch an audience. When I do a show, the people in the audience seem to feel that we've communicated, become acquainted in a way, that something has passed between us—and so they come backstage after the show," he said. "I like that. And they ask all kinds of questions—how I feel about the war, civil rights, pollution, all sorts of things."

And he tells them. "I don't see how today, with all that's going on, you can be *uninvolved* and *not* have an opinion about these things. Music does have a connection, and I think people have a responsibility to speak out—I think *I* have a responsibility. Music today is much more than entertainment; it has a profound impact on people's lives. Contemporary music is an expression of a life style.

"I seem to be able to speak pretty bluntly about these things and still not alienate those who disagree with me. I don't quite know how that works, but it seems to be that way."

Popular music, he believes, is in pretty good condition artistically, as seen against that of the past. "We have fads, sure, and people grinding out songs and arrangements calculated to make a quick dollar, but there are a great many songs out today that weren't written merely to make money. The sad part of it is that there are so many *other* good songs that aren't being heard.

"We in America, when something new comes along, take it as far as we can go"—he cited such phenomena as the raga-rock sound introduced by the Beatles, which sent droves of rock musicians off to learn to play the sitar. "Then," he said, "gradually, we discard most of the worst from each trend and keep most of the best. You still have a few opportunists playing heavy rock, for example, but most of the heavy rock groups that are still thriving play pretty *good* heavy rock. And there seems to be a rush now into country-and-western."

There is some country-and-western influence in John's background, and he still puts a country twang into his voice now and then for humorous effect. He was born twenty-seven years ago in Roswell, New Mexico, the son

of an Air Force officer who moved about considerably. John spent three years in Japan during his early childhood, and time in Arizona, Alabama, and Texas, among other places. He was at Fort Worth through high school and into college. "I say I'm from Texas because I was there during the formative years," he said.

He left Texas Tech halfway through his junior year, for music was becoming more important to him. He had planned to be an architect, but his grandmother had given him a 1910 Gibson guitar—in which he developed an interest only after he stopped taking formal guitar lessons—and he was singing, alone and with a trio, and playing with a rhythm-and-blues band from time to time. "I was getting bored with college," he said. "The grades were suffering, and the curriculum didn't seem to have enough connection with the real world. I think it was then that I first became aware of the words I was singing."

In 1964, with \$125 in his wallet, he went to the West Coast, took a job as a draftsman, and played music before tiny audiences.

"Folk music was much bigger then than it is now. There were hootenannies at various places and I played at some. Finally, Randy Sparks hired me for his club. I have some tapes of a show I did there—the most incredibly funny and boring thing you ever heard," he said with a grin. "But I learned how to put a show together there. Randy was a great help with that. The Back Porch Majority was playing there and a couple of its members helped me."

His first major job as a performer was as a member of one of those folk-revival groups of the early Sixties, the Mitchell Trio, which had been known earlier as the Chad Mitchell Trio. The word "Chad" had been dropped from the name because Chad Mitchell left the group, and it was Denver who replaced him. (After talking to Denver at length about it, I had to find out from other sources that he got the job over 250 other applicants.) A member of the Brothers Four had heard him in Randy Sparks' club and had told the Mitchell Trio about him.

"It was a very big step for me," he recalled. "These guys were sort of my idols, especially Chad. I thought he had an incredible voice, and here I was taking his place." The date was July 4, 1965.

"Through the Mitchell Trio I think I first became politically and socially aware," Denver said. "The concerts were fantastic. We played the colleges and always seemed to get a standing ovation. The group had something; it was funny and whimsical, and it had something

to say. It was a great frustration that the records never did seem to go over."

The trio went through a couple of personnel changes and, with none of its original members left, it faced a legal problem with Chad Mitchell because of the contract he had left behind for the group's perpetuation. So the trio, now led by John Denver, changed its name to Denver, Boyce and Johnson. It was still a good group, Denver thinks, and he believes the audiences thought so, too, but the record companies apparently didn't think it would sell.

"We cut some sides for Reprise that were the best things I've ever been involved in recording—better than the stuff I've done alone or with the original trio—but Reprise never released them," he said. "I wanted to keep the group going. There are certain hassles involved in being with a group, but I didn't feel quite ready to go out alone."

**T**HE trio dissolved in December, 1968. John Denver went to the cool, clean air of Aspen, Colorado (elevation 7,900 feet), to ski and start again as a solo performer. "I thought there would be a good cross-section of people there and I could re-establish my rapport with an audience and my repertoire as a single."

He played some dates at a small club called the Leather Jug—where Chad Mitchell had appeared as a solo performer a couple of years earlier—during Aspen's Winterskol festival, and the Winterskol, as it happened, included a song-writing contest.

"I'd had a lot of beautiful experiences there. The whole stay had given me a tremendous lift when I badly needed one. The local people were so involved in that friendly way of life—and when I finally sat down to think about it, I wrote the song in about fifteen minutes."

The song, of course, was *Aspenglow*, which didn't win the contest but seems pretty likely to outlast the one that did.

"I tried to capture something of the spirit of the people there and the way they treated me," John said. "The friendliest people in the world, I think, are skiers."

John now lives with his wife, Ann, in Minneapolis. They moved there so Ann could finish college, but the city is also convenient to John's "office," the college campuses where he performs, most of them in the Midwest.

"Playing before an audience is what I do best," he said. "Recording gives you a chance to get it down exactly the way you want it and preserve it that way. But an audience gives so much back to you. I think my concerts do well at colleges because so many other musicians have put the kids on, and I don't. I like to think I do a *show*, and I select songs for a purpose, songs that I think mean something. I can't see running yourself ragged trying to be on top of the latest trend. I expect to be able to make my living this way a long time—all my life."

#### FREE JOHN DENVER SAMPLER

A 45-rpm stereo single of John Denver singing his *Leaving, on a Jet Plane* and Tom Paxton's *Jimmy Newman* is offered free to the first 5,000 STEREO REVIEW readers who circle number 155 on the Reader Service Card, page 9.



## JOHN DENVER ON RECORD

JOHN DENVER was, he admits, "scared to death" when he recorded his first RCA album, "Rhymes and Reasons." That isn't apparent to the listener and isn't as much a problem as the feeling that too many of the songs carry about the same—rather light—weight. But so many of them also have so much charm that I, for one, would give the album an overall mark of a high B-plus. When you hear Denver's second album, "Take Me to Tomorrow," you see the weight problem in perspective. The two albums, it turns out, are an approximation of a typical John Denver concert, and that's the way he sets up a show—the light stuff first, and such songs as Jacques Brel's *Amsterdam* or Tom Paxton's *Jimmy Newman* later, when he thinks the audience is ready. Actually, Denver wanted his first album to be a two-record set, so it would make sense as a program, but RCA wouldn't take that kind of gamble with a relatively new performer. (The problem, I'm told, is not in production costs but marketability of double-disc albums—the record outlets don't like to lay out the extra wholesale cash for them.)

Viewed separately, "Take Me to Tomorrow" ranks higher than "Rhymes and Reasons," and from what I've heard of the master tapes, Denver's third album, "Whose Garden Was This?", which is to be released this fall, will be better than either. It will include the Beatles' *Golden Slumbers*, a beautiful little song that the Beatles fumbled by running it into *Carry That Weight* without pause. Denver decided that *Carry That Weight* was inappropriate for the theme of his album, and has written a new ending for *Golden Slumbers*. Also included will be *Mr. Bojangles*, *The Night They Drove Old Dixie Down*, and the title song, which will be released as a single. It's easy to see why; it's a beautiful piece, and has a melody one can pick up quickly. As for *Mr. Bojangles*, I have heard its writer, Jerry Jeff Walker, perform it on stage, and I didn't think anyone could improve on that. Denver does something very simple with the song: he slows it down just a little bit. Funny that nobody ever thought of that before. The result is that the

pathos is heightened, and the song—overexposed now to the point of cruelty—is rejuvenated. Denver's version will have to be the standard for others from now on. And throughout this third album, Denver's voice sounds markedly more mature than it does on the first two.

John Denver is best known, of course, for having written *Leaving, on a Jet Plane*, which is included in "Rhymes and Reasons." Curiously, his performance of it is lackluster compared with his enthusiastic way with other songs such as his own *Daydreams* or *Circus*. Denver's is a thoroughly pleasant voice, conveying emotional sincerity above all else. It is difficult to believe he has not had formal voice training, for the Denver cords seem to have such an easy time of it that you would never suspect they were doing anything demanding. His voice has been compared to Nilsson's. He is an admirer of Nilsson; his heroes, he says, are Nilsson, Paul McCartney, and his friend Tom Paxton, author of several songs in his repertoire. But Denver's voice is smoother at the edges than Nilsson's, and generally softer, and conveys a different emotional shading.

HE also has closer ties with folk music than Nilsson, and that shows in his delivery and in the songs he performs. He exercises considerable control over the songs selected for his recordings, and the selection seems to me one of the strong points of his first two records. Rarely have I heard so many songs I could identify with and call good. Some are simply pretty, in the folk-pretty tradition; others are in the rock idiom and have a different set of merits. I think that including *When I'm Sixty-Four* in the earlier album was a mistake, and that Denver sings it too fast besides. But compensations on that disc include *Circus* (which is, indeed, better than *Jet Plane*) and half a dozen other fine things.

His guitar picking (he has had guitar lessons) is fair to good on the standard instrument; he is still learning the twelve-string guitar and doesn't yet try anything fancy with it. On both recordings so far released, he is backed by fine studio musi-

cians, some of whom have traveled with him.

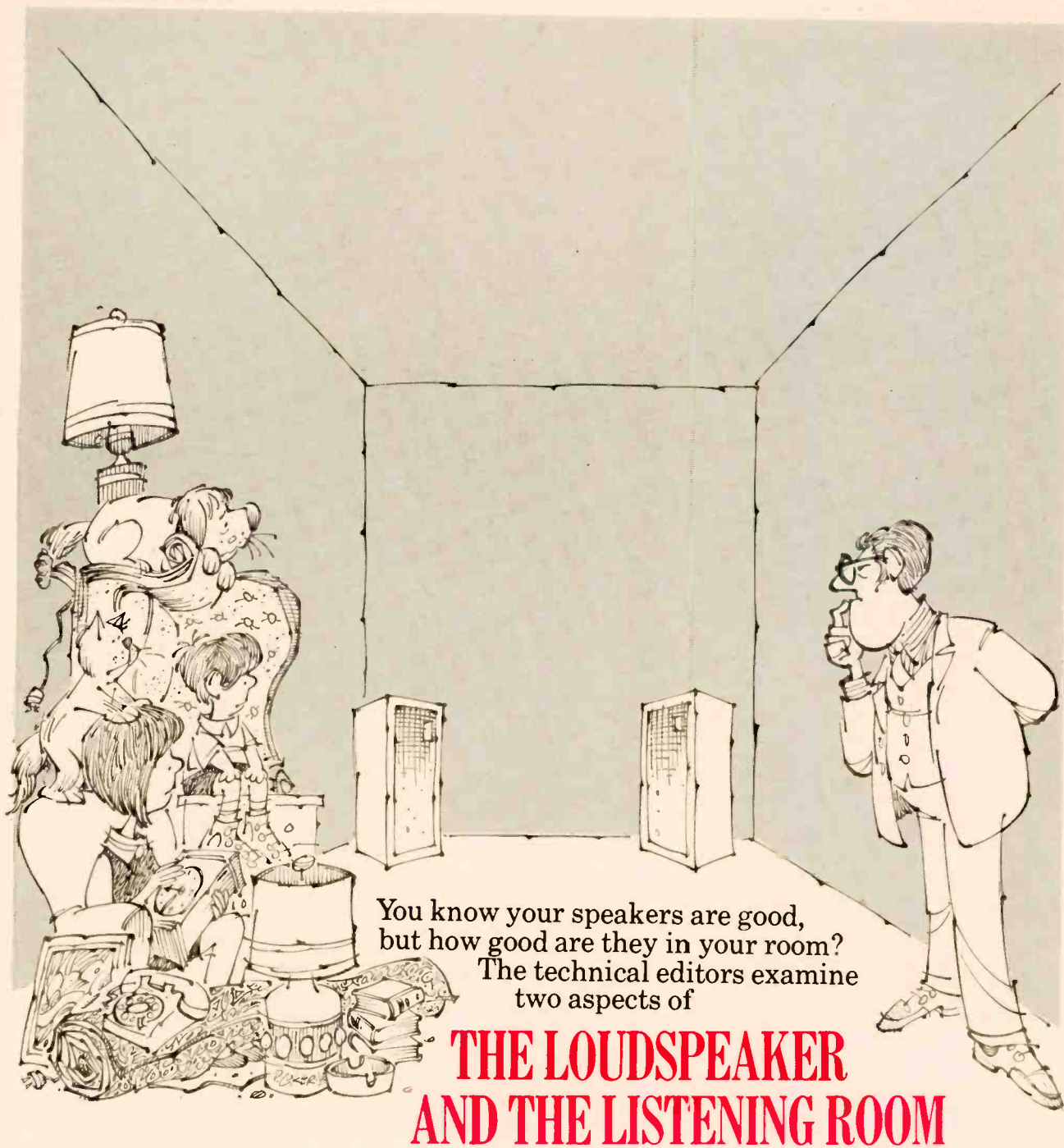
As any good show should, the discs contain humor. *Stomped My Heart*, a parody of country-and-western, is a real knee-slapper ("You done stomped on my heart"—correctly pronounced "hort" by Denver—"and mashed that sucker flat/ You just sorta stomped on my aorta"). And Denver wryly summons up the nasal country twang again for *Forest Lawn* in the second album. That song is such a deft piece of social satire that I had to check to make sure Tom Lehrer hadn't written it. It turns out Tom Paxton did. Another amusing Paxton song, this one on the first album, is *The Ballad of Spiro Agnew*; it is fourteen seconds long and consists of the words: "I'll sing you a song of Spiro Agnew/Of all of the things that he's done . . ." followed by ten seconds of silence. Well, I liked it.

On the darker side, there's *Jimmy Newman*, also written by Paxton, on "Take Me to Tomorrow." It's a narrative about a young man, presumably a soldier in an overseas hospital, trying to awaken his friend just before they are to be shipped home together. The friend, we gradually come to realize, is never going to wake up. Denver's performances of this and of such things as *Amsterdam* indicate a depth that will surprise those exposed only to the first album.

John Denver wrote or helped write ten of the twenty-three songs on his first two albums, but expects to contribute no more than three or four of his own songs to "Whose Garden Was This?" I fear this will prove to be the disc's main weakness. Songs of the quality of *Isabel*, *Aspenglow*, *Circus*, and *Rhymes and Reasons* would improve ninety per cent of the albums released—and the disposition of record reviewers as well. N. C.

**JOHN DENVER:** *Rhymes and Reasons*. John Denver (vocals, guitar); various accompaniments, John Denver and Milton Okun arr. *The Love of the Common People*; *Catch Another Butterfly*; *Daydream*; *Circus*; *When I'm Sixty-Four*; *Rhymes and Reasons*; *Yellow Cat*; *Leaving, on a Jet Plane*; *My Old Man*; *Today Is the First Day of the Rest of My Life*; *Ballad of Spiro Agnew*; *Ballad of Richard Nixon*; *My Heart*; and *I Wish I Knew How It Would Feel*. RCA LSP 4207 \$4.98, Ⓢ P8S 1531 \$6.95, © PK 1531 \$6.95.

**JOHN DENVER:** *Take Me to Tomorrow*. John Denver (vocals, guitar); various accompaniments, John Denver and Milton Okun arr. *Isabel*; *Follow Me*; *Forest Lawn*; *Aspenglow*; *Amsterdam*; *Anthem—Revelation*; *Sticky Summer Weather*; *Carolina in My Mind*; *Take Me to Tomorrow*; *Jimmy Newman*; and *Molly*. RCA LSP 4278 \$4.98, Ⓢ P8S 1564 \$6.95, © PK 1564 \$6.95.



You know your speakers are good,  
but how good are they in your room?  
The technical editors examine  
two aspects of

## THE LOUDSPEAKER AND THE LISTENING ROOM

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### Installing the Speaker in the Room/Larry Klein

**A**T BEST, the set-up instructions that usually accompany speaker systems can be charitably described as minimal. A possible reason for this is the complexity of the problem. Most people install their speakers where they look good—or at least unobtrusive—and that is that. "Why cause trouble," thinks the manufacturer, "by bringing up questions of room acoustics and

how a speaker system interacts with them, when it's easier to leave well enough alone?" However, one hallmark of the audiophile is his inability to be satisfied with "well-enough," and it is to these new and old-time seekers after fidelity that this article is addressed.

First of all, there are unfortunately no hard-and-fast rules about exactly where to put your stereo speakers. The

acoustic characteristics of listening rooms vary tremendously from one to the other, and certainly loudspeakers are not famous for their consistency from brand to brand—or even model to model. One way of approaching the question, then, is to look at the range of variation in room properties, then the variations in speaker characteristics, and to try to relate the two sensibly.

The normal-size listening room has properties that can affect the sound from a speaker in various ways. If a room has bare walls, uncarpeted floors, and sparse furnishings, acousticians would describe it as "hard" or "bright." If you were to stand in such a room and clap your hands—once, and hard—after the clap you would hear a sort of "ringing" or "reverberation echo" that might take up to a second or so to die down. At the other extreme, if the listening room is filled with goosedown sofas, overstuffed chairs, and heavy drapes and rugs, the same handclap in such a room will sound rather "dead" or dull. Most of the "snap" in high-frequency sounds will be gone and, in an extreme case, hands clapping might sound more like feet stamping. Music reproduced—or played, for that matter—in the two above-described rooms would, of course, be subject to similar sonic aberrations. In the "bright" room, everything played through the speakers would sound excessively shrill; pizzicato passages would be blurred, the stereo effect would be mostly lost, and tape and record-surface noise might be unbearable. The same speakers playing in the "dead" room would sound dull, muddy, perhaps boomy, and would lack instrumental definition. For best results, of course, the acoustic properties of the listening room should be somewhere between these two extremes. Happily, they usually are. If you feel your room is too "live," try additional "damping" such as is provided by rugs, heavy drapes, wall hangings, well-cushioned furniture, and so forth. If your room is too dead (a very unlikely situation with today's approach to interior decoration), try removing some of the above-mentioned items.

The only other room-acoustics problems that can cause difficulties are the phenomena called *standing waves*. Since the dimensions of most listening rooms are such that they correspond to low-frequency wavelengths (actually half-wavelengths), you may conceivably run into standing-wave trouble—a persistent bass heaviness that is heard in some parts of the room but not in others. In general,

#### STEREO REVIEW'S TEST RECORD

The Model SR12 Stereo Test Record, which has a variety of bands useful for speaker-system installation, is available for \$4.98 (postpaid) from: Stereo Test Record, Ziff-Davis Service Division, 595 Broadway, New York, N.Y. 10012. Outside the United States, the cost is \$7.00. New York State residents please add local sales tax.

you can minimize the problem by, in effect, changing the room boundaries: install tall heavy bookcases or similar furniture as room dividers, relocate your speakers, or relocate your listening area. Standing waves, when troublesome, tend to be at maximum pressure extremes along walls and in the corners. Speakers located at the maximum pressure points will tend to aggravate the situation, whereas speakers located at the low-pressure points will minimize the problem.

**I**N order to determine the best locations for your speakers you could do a mathematical analysis of your room and the troublesome wavelengths, but it's simpler to use your ears as null detectors. With your speakers playing in some other part of the room (standing waves remain in the same location no matter where your speakers are located) move your head around in the area where you intend to locate your speakers. With heavy bass material playing you should be able to hear areas where the bass is very strong and other areas where it is comparatively weak. For minimum activation of standing waves, locate your speaker in the weak areas. The same technique can also be used for the positioning of your favorite listening chair. A test-tone record or audio generator will make the job much easier. Other possible remedial measures you can try include turning up the mid-range and tweeter controls on your speaker so that the relative bass level is lower, and/or cutting back on the bass response with the tone controls on your amplifier. You might be able to establish some compromise setting that eliminates most of the standing-wave problem without simultaneously getting rid of all your bass response.

Obviously, the lower and more powerful the bass response of your speakers the more likely they will activate the standing waves in the room. Unfortunately, there are some severe standing-wave problems that admit of no easy solution. Changing the dimensions of the listening room or using some type of room-equalization technique are possibilities, but they demand what some would regard as radical surgery on your walls or bank account. (It would be out of order to discuss the matter further here, but if you are interested in more information, I can suggest two past STEREO REVIEW articles dealing with the subject. The first is *Controlling Listening-Room Acoustics*, by Roy Allison [February 1964]. It is available as a free reprint from Acoustic Research, Inc., 24 Thorndike St., Cambridge, Mass. 02141. The second is *Room Acoustics*, by Peter Sutheim and Larry Klein [October 1966]; reprints are available from KLH, 30 Cross St., Cambridge, Mass. 02139. Please include a stamped, self-addressed envelope with your reprint request.)

Assuming that your listening room's acoustic properties fall within a normal range and present no special problems, let us consider some of the other speaker-installation questions that commonly arise.

How far apart and how high should stereo speakers be installed? The maximum and minimum permissible distances between your speakers is determined both by your speakers' high-frequency dispersion characteristics and the dimensions of your listening room. The better your speakers are in respect to their ability to radiate the higher frequencies over a wide area, the less critical will be the distance from speaker to speaker and from speakers to listener. In general, the closer you have to sit to the speakers (because of room dimensions), the smaller the permissible spacing between them. A good starting point is a separation of eight feet—and then adjust to taste. The goal, of course, is to achieve the speaker-to-speaker spacing that provides a continuous stereo image across the area between them. Admittedly, some program material is not intended to provide that sort of image, but with well-recorded large symphonic works, the orchestra should be spread out smoothly between the speakers and even slightly beyond their sides. The STEREO REVIEW Model SR12 test record has a band that will help you achieve proper spacing (see ordering information elsewhere in this article).

The general rules for locating speakers are these: the closer to the room corners, the more bass will be heard. For maximum bass, a speaker system should be installed in a corner at a junction of two walls and the floor—or ceiling. For less bass, a speaker should be installed at a mid-wall location, and for minimum bass, a system should be moved away from the walls a foot or so. In effect, all the same rules discussed earlier that apply to controlling standing waves also apply for bass reproduction.

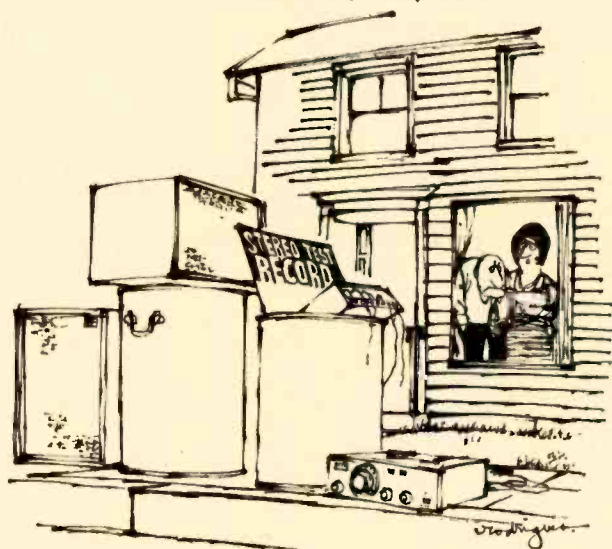
You should be aware that the *most* bass is not necessarily the *best* bass. What you want is bass performance that does not overpower the mid-range and treble, but is smoothly coordinated with it. (The Model SR12 test record has bands that check this too.) Some bookshelf-size systems, if operated standing on the floor, not only become bass-heavy, but also tend to have their upper frequencies soaked up by rugs and furniture. The result is an unbalanced, muddy sound quality. Bookshelf systems are best installed at ear level (for a listener who is seated, that is). If you want to put them higher, tilt them so they face down at the listening area. If you place your speakers against the short wall of, say, a 10 x 15-foot room, you may get excessively heavy bass because of their proximity to the room corners. But, on the other hand, if your speakers can use help in the bass end, the short wall may be the preferred location. Again, it's a matter of trial and error.

The tweeter and mid-range level controls on the back of your speakers are there to be used. Don't simply set them to "normal" and let it go at that. I have found that some speaker manufacturers (including one of the biggest ones) have peculiar notions as to what constitutes a "normal" setting. Pick a good new classical disc and use

it to set your speaker controls. Set the tweeter so that you hear smooth reproduction of cymbals and triangles, but not excessive scratch or tape hiss. Set the mid-range so that there is neither an excessively "forward" nor "remote, withdrawn" quality in the music. Listen particularly to brass when setting the mid-range control, and try to minimize any nasal or "honky" quality that may appear. Again, the test tones on the Model SR12 record will be very helpful here, or you can refer to the article *The Experts Pick 25 Stereo Demonstration Records*, in the April 1969 issue, for appropriate musical program material.

Another common question concerns the best kind of speaker wire to use. Avoid, if possible, the thin "hi-fi" speaker cable sold by most stores. It's okay for runs of perhaps 10 feet or so, but to prevent loss of power on longer runs use ordinary rubber- or plastic-insulated lamp cord. Make sure that the wire is connected so that the speakers are properly phased. Every two-conductor wire has some sort of coding to differentiate one conductor from the other. The coding may consist of a ridge or flat on the plastic insulation, a colored thread inside the insulation, or even different colors in the wire itself (copper and silver are commonly used). Make sure that the same wire of each pair goes to the "hot" or "plus" terminal on the speaker *and* the amplifier. (The Model SR12 test record also has a band to check proper speaker phasing.)

One last point: if your amplifier or receiver does not have provisions for multiple speaker switching, think twice before buying a speaker switch out of a catalog and hooking a batch of extensions to it. A wrong choice of switch and you may blow out the power transistors in your amplifier. If the amplifier manufacturer's instructions do not include data on connecting extra speakers, write for his suggestions before going ahead on your own and making what could be a very costly error.



"... Gerald, isn't there a tiny possibility that the test record itself was off?"

## Speaker Performance and Room Size/Ralph Hodges

A SHORT time ago STEREO REVIEW sent a brief note to a number of loudspeaker-system manufacturers as follows:

There seems to be some confusion in the minds of our readers on the matter of listening-room size and loudspeaker characteristics. Do certain speakers perform better in large or small rooms and, if so, why?

Not all the manufacturers replied, but the replies of those who did were illuminating, if not definitive.

Virtually all the respondents were agreed that a speaker has to work harder in a large room than it does in a small one. This is true despite the fact that a speaker with a given drive signal will transmit the same amount of sound energy *directly* to the ear of a listener located, say, eight feet away in either a large or a small room. But the sound reaching the listener directly—following a straight-line path from grille cloth to ear—makes a relatively small contribution to the perceived loudness. Most of the sound heard impinges on his ears by being reflected toward his position by the interior surfaces of the listening room. And the larger the room the more this sound energy is dissipated before the longer reflective paths it follows bring it to the listener's ear. George Augspurger of James B. Lansing Sound commented: "As room volume goes up and reverberation time goes down, it takes more and more acoustic power to deliver the same loudness. Consequently, there is a point in room size at which small, inefficient loudspeaker systems cannot be used because they simply can't play loud enough."

Most of the respondents indicated that the loudness problem in a large room exists primarily in respect to low frequencies. Dave Hafler of Dynaco noted: "The larger the room, the less 'bassy' it is. The infinite room (an anechoic chamber) has the least bass." On the matter of efficiency, larger speaker systems, because of their acoustical designs, are almost always more efficient than the smaller acoustic-suspension systems. In general, the larger systems require far less cone motion to achieve the same acoustic output. A small loudspeaker, on the other hand, usually depends on long back-and-forth cone excursions to produce an equivalent output. For that reason, according to Martin Gersten of Rectilinear Research, a small speaker will "prefer" a small room where relatively short excursions will produce the desired loudness level: "A smaller cone excursion results in less harmonic, intermodulation, and frequency-modulation distortion, particularly from acoustic-suspension woofers."

R. T. Bozak, of the speaker company of the same name, is a firm believer in small speakers for small rooms and large ones for large: "A large loudspeaker in a small room has an uneasy or uncomfortable sound because of

excessive bass power, while the converse is true of a small loudspeaker in a large room, which will sound thin."

On the other hand, Victor Campos of KLH maintained: "A good loudspeaker is a good loudspeaker in a telephone booth or in an armory. A given environment will act identically on the sound being generated by any speaker, and therefore a good, flat speaker will sound better in a good *or* bad room than a peaky, rough speaker."

Roy Allison of Acoustic Research maintains that although large speakers tend to be more efficient, "the low-frequency performance capabilities of speaker systems have little to do with their size. Even allowing for large variations in room size and furnishings, the power requirements of the relatively small acoustic-suspension systems in use today are well within the range of readily available amplifiers and receivers. Only when fairly large auditoriums must be filled with sound are more efficient speakers necessary."

Many of the respondents felt it necessary to consider acoustic characteristics, such as resonant modes, that might be encountered in particular rooms. Every room has fixed, finite dimensions, and therefore it also has natural acoustical resonances that can be activated by sound waves that relate to its dimensions in a certain way. In most cases, a sound wavelength that is twice as long as one of the room dimensions will resonate most enthusiastically, and will, as a result, be louder in certain areas of the room than adjacent wavelengths that are a bit longer or shorter. Multiples of that sound's frequency will also be affected. These resonances can be troublesome if they result in only a few frequencies being emphasized over the rest of the audio spectrum.

However, rooms well proportioned for the reproduction of music will have dimensions that will encourage resonances at a number of well-distributed frequencies. For example, a room with a major dimension of 19 feet would encourage a frequency in the neighborhood of 30 Hz, the wavelength of which is approximately twice 19 feet. If the room's width is about 12½ feet, a resonance will occur at around 45 Hz. And a 10-foot ceiling would tend to create a resonance in the region of 55 Hz. In such a room, bass response would be reinforced by the resonances, but would still be relatively smooth because the frequencies of the resonances are reasonably well distributed. A room less well proportioned, however, might create the prominent low-frequency resonances known as "standing waves," which Fred Nichols of Electro-Voice calls "the most vexing aspect of room acoustics." He points out that two speakers that are identical may, nevertheless, sound substantially different at the frequency of a standing wave if they are placed at different locations in the room.

The dimensions discussed above are conceivably not unusual ones, and might be found in many houses or apartments. In a room very much larger, the resonances will be below the lowest audible frequencies, and the bass output of a speaker will therefore receive no reinforcement from the room. Irving Fried of IMF pointed out that, under such conditions, a speaker with a response that rolls off below, say, 80 Hz will lack bass, although it may sound fine in an average-size room. Going to the other extreme, the resonances in a very small room would tend to occur at frequencies above the deep bass range. According to Roy Allison of Acoustic Research, a very small room makes it more difficult for any speaker system to generate very low bass, no matter what its low-frequency capabilities. Victor Brociner of H. H. Scott pursued the point: "It is often stated that a room cannot allow reproduction of frequencies below its lowest resonant mode—which is determined by its size. This is not really so. Of course, bass would be reduced compared with that in a larger room, but a speaker with good bass reproduction would still sound better than one without it." George Augspurger was in close agreement with Brociner's views.

Considering this question in terms of speaker size, Bob Beavers of Altec Lansing offered some comments that seemed to reinforce Bozak's earlier remarks. "Room A, 4,000 cubic feet in volume, will produce a reverberant room gain that becomes appreciable at 300 Hz and builds up to about a 16-dB peak at approximately 50 Hz. Room B (2,000 cubic feet) begins to build up at 600 Hz and may reach +20 dB at 100 Hz. Large bass-reflex systems will have a more nearly uniform response in Room A than most small speaker systems. Room B, however, is more sensitive to mid-bass frequencies and may sound quite boomy with speaker systems designed for a flat energy response in an anechoic chamber. High-quality acoustic-suspension speakers will be more pleasing in this and smaller rooms."

Amar Bose of the Bose Corporation, as well as Dave Hafler, recommended that an individual room's characteristics be exploited when they benefit a speaker's performance and altered, if possible, when they are detrimental. Bass response is augmented if the speaker is placed in a corner, or reduced if it is situated so that it can't strongly activate some of the room's important resonant modes. The decorating scheme can be arranged with consideration given to its potential acoustical properties. Most objects and materials are absorbent at certain frequencies and reflective at others; the right furnishings, properly arranged, will damp the portions of the audio spectrum that were undesirably prominent in the untreated room and leave the others relatively untouched. Bose suggests: "The acoustical treatment that is appropriate to achieve better performance from speakers is the same that would be used to improve the sound of live instruments in the room, and it almost always makes

the room much more pleasant for living in as well."

After low-frequency performance, the matter most frequently discussed was high-frequency dispersion, which was unanimously considered to be desirable in all cases, but especially desirable in large rooms. Irving Fried said this was so because in a large room one would be more likely to find himself in the sound beam projected by a highly directional speaker (the beam spreads like a flashlight beam the further it travels), while Victor Brociner felt that one would often find oneself outside the beam—since more seating positions would be available—and therefore miss some of the highs. Dave Hafler, while in agreement about the advantages of wide dispersion, had one reservation: an omni-directional speaker, which radiates equal amounts of high-frequency energy in all directions, might be too "hot" in a bare room with few sound-absorbent furnishings. Martin Gersten remarked that "a speaker with generally limited dispersion will be acceptable in a small room, but noticeably weak in a large one."

Both Fred Nichols and Amar Bose held that a directional speaker is less affected by room acoustics than one with wide dispersion when both speakers are listened to on-axis—which is not to say that a directional speaker is ever desirable except in public-address systems, where intelligibility rather than quality is the goal.

**S**OME of the related points brought up were quite intriguing. George Augspurger felt that matching a speaker to the room makes sense: "Assuming that most listening rooms are too small, too dead, and too box-like, why not make a speaker system specifically intended for stereo reproduction in this kind of acoustic environment?" Irving Fried maintained that "speakers with phase problems seem to benefit from small rooms, in which rapid phase confusions tend to be masked." And, according to Martin Gersten, "From the standpoint of fidelity, the smallest drivers possible should be used to reduce time-delay and rise-time effects. This tends to limit the highest fidelity systems to relatively small units that cannot be driven to large-room levels."

Taken as a whole, the replies of our respondents testify to the complexity of predicting a speaker's performance in any acoustical setting. There was some (expected) disagreement as to whether small speakers can really do the job in the relatively vast interior spaces of auditoriums and assembly halls—more a matter of a speaker's power-handling capability and efficiency than of its size *per se*. But on the question of speakers suitable for use in living rooms—even large ones—there seemed to be general agreement with Amar Bose's closing statement: "There are no specific properties of any good speaker that make it better for a particular size room, but there are several variable factors that can markedly affect the performance of any speaker in any room."





INSTALLATION OF THE MONTH

## A PROFESSIONAL'S APPROACH

**G**ARY M. SMITH is an insider in the audio field. He manages an Oklahoma branch of a chain of mail-order electronics stores, and he spends a great deal of his leisure time with the versatile stereo installation in the living room of his Tulsa apartment. The installation is based on a two-piece hutch-and-buffet assembly that Mr. Smith bought with no audio function in mind. When inspiration struck, he went to a wooden panel-mounting surface—faced with avocado velvet—over approximately two thirds of the hutch's front exterior, and out came a corresponding section of the hutch's rear panel, to be replaced by sliding doors. When the console arrangement is pulled away from the wall, the wiring for the tape decks and electronics is easily accessible. Cables for the turntable and the control box seen at its right are concealed behind the rear panel; they emerge through holes directly behind.

The deck on the right is the Teac A-6010U. Its electronic section has been deliberately separated from the transport and located a few inches below to complete a

horizontal line of components that also includes a Realistic TM-70 AM/stereo FM tuner and an AR amplifier. The other tape deck is a Teac A-1500U, and between the decks is a Heathkit 5-inch oscilloscope that Mr. Smith uses as a level indicator following the suggestions made by Craig Stark in his article "Using an Oscilloscope as a Record-Level Meter" (STEREO REVIEW, March 1969). The turntable is a Marantz SLT-12U with an Empire 999VE cartridge.

The control box mentioned above was designed and built by Mr. Smith. It has inputs and mixing facilities for four microphones, headphone outputs and level controls, and a speaker selector to switch between a remote pair of Altec Lansing 848A systems and the main speaker systems shown in the photo. (These are home-constructed enclosures containing three-way University driver systems and crossovers.) And, of course, the cabinet supporting the installation houses Mr. Smith's records and tapes, which are mostly of popular music.

—R. H.

## Stereo Review talks to **RENATA SCOTTO**



THE SOLO song recital, a regular feature of musical life in European countries north of the Alps, has never been very popular with audiences in Italy, and Italian singers rarely take time out from opera to learn the song repertoire. An exception is the lyric-coloratura soprano Renata Scotto, one of the stars most sought after by opera houses throughout Italy. In a season when her operatic schedule included a revival of Verdi's *I Lombardi* in Rome, Bellini's *La Straniera* in Venice, and important engagements at the Maggio Musicale Fiorentino and elsewhere, Mme. Scotto still found time to sing a number of recitals in Europe and in several American cities.

The enthusiastic audience at her Carnegie Hall recital in New York included an unusually large number of other singers, such as Beverly Sills, Joanna Simon, and Zinka Milanov, several of whom were recognized and applauded as they made their entrances. The public also responded warmly to Mme. Scotto's program of songs by Rossini, Bellini, Donizetti, and Verdi, and so did the critics.

Two days later in the living room of her hotel suite in Manhattan, she was well supplied with the things that make a soprano happy: her reviews were good, she had a full calendar of singing engagements, and she was surrounded by flowers from her admirers and by attentive men—her husband, her translator, her manager, and her interviewer. She was radiant. "I sing recitals because I enjoy them," she said. "The Italian vocal tradition is essentially theatrical, and on the operatic stage you have scenery, costumes, the drama, and the orchestra to help you make big effects. A solo recital places a much greater responsibility on the singer and requires a great deal more intellectual preparation, but since the challenge is greater, the satisfaction to the artist is also greater.

"I didn't sing the usual concert program—you know, a French group, a Schubert group, and so forth—because everybody else does that. Of course, I sing Schubert too and even some songs of Alban Berg, but I thought an all-Italian program would be an interesting change, and as an Italian I am proud of our song literature and would like to make it better known. I have recorded this program in Italy, and it has been issued on disc." [*La Voce e l'Arte di Renata Scotto*, RCA Italiana SL 20256, available as an import from Peters International, Inc., 600 Eighth Avenue, New York, N.Y. 10018.]

Asked whether it had made her nervous to sing for an audience that contained so many other opera stars and so many fans recording the concert on tape, she replied, "Not at all. I like to sing, and I'm happy on stage. The only time I am nervous about it is when I don't feel well and

think my voice might not be at its best. Other than that, nothing makes me nervous. I go to hear other singers whenever I can, and I am pleased that they come to hear me. As for the tape enthusiasts, I don't object to them. They're mostly young people, and it's really rather flattering to a singer that they are sufficiently interested in her work to want to take some of it home with them. But when they turn it into a business, that is something else, and I don't like it." Pointing emphatically at a pirated recording of one of her performances in Bellini's *La Straniera* with a handsome photograph of herself on the cover, she said, "This has the look of a commercial recording, but it is unauthorized, and it is sold for high prices here and in Italy. I object not just because the pirates don't pay the artists, but because the quality of the sound is usually poor, and with the singers moving around on the stage proper microphone placement is impossible. Such records do not show the singers' work at its best."

Few artists will single out the records on which they have done their best work, but having raised the question herself, Mme. Scotto readily obliged, naming her *Madama Butterfly* (Angel S 3702), *La Traviata* (DGG 138832/3/4, deleted but still available in some shops), and *Rigoletto* (DGG 138931/2/3). Her husband, Lorenzo Anselmi, a violinist, commented, "My favorite of Renata's recordings is Rossini's *Petite Messe Solennelle* [Everest S 441/2], and I think *La Cambiale di Matrimonio* on the same label [Everest S 446/2] is also a good representation of her work."

"For the last ten years my husband has been my only teacher," Mme. Scotto said. "He helps me develop my interpretations and helps me choose new repertoire. We study scores together and base our choices on two things, the beauty of the music and what I can do best. Our choices are usually from the *bel canto* repertoire, which I prefer. I love Puccini, of course, and continue to sing his operas, but *Butterfly* is easy—yes, it's really easy—compared with Bellini and Donizetti. The public responds quickly to the pathos of *Butterfly*, which makes it easy for the singer to communicate emotion. That kind of communication is very difficult in the *bel canto* operas, and because of the display of vocal technique they require they are very difficult to sing, but I like the challenge."

Before opening the 1970-1971 season at La Scala with Verdi's *I Vespri Siciliani*, Mme. Scotto will return to New York in the fall to sing a recital at Hunter College and *Lucia di Lammermoor* at the Metropolitan. That should give her enough challenge and opportunity for vocal display to keep her happy for at least another season.

—William Livingstone

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



**CLASSICAL**

**OPERA EVENT OF THE YEAR: BERLIOZ'S *LES TROYENS***

*Colin Davis' recording of the complete work for Philips is indispensable for operaphiles*

“**W**HAT, all of it?” Confronted with the first complete recording of Hector Berlioz's *Les Troyens*, one's impulse is to echo, with somewhat different emphasis, Rossini's riposte when an official informed him that the Paris Opéra planned to produce one act of his *Guillaume Tell*. For surely no major score in musical history has suffered more greatly from piecemeal presentation than Berlioz's Virgilian epic. Until the Royal Opera House at Covent Garden mounted the production on which this recorded version is based last September 17, *Les Troyens* had never been staged anywhere complete and in the original language. In Berlioz's lifetime, only the last three acts, heavily abridged and titled *Les Troyens à Carthage*, made it to a stage, and the composer died without ever hearing the first two acts, known now as *La Prise de Troie*. Thus severed in twain, and invariably further cut, the almost mythical score has been limping about the world for a century, trailing musical blood.

Now, perhaps, the ghost of Hector may stop rattling his chains. Thanks to Albion, not France, we have the whole work—yes, all of it—the five acts on ten disc sides, playing almost exactly four hours (the Covent Garden production, with two intermissions, added up to a five-and-a-half-hour evening). Colin Davis, the conductor, and Philips Records based this historic recording on the two-volume Bärenreiter Verlag score, published last year and edited by Hugh Macdonald, which goes back to Berlioz's score as it stood in June,

1863, before the composer, in his despair at ever hearing a full performance, split his opera in two and cut it cruelly. Davis, in the recording achievement of his career to date, pleads for this sweeping beauty of a score with a performance of eloquence and control, one that is expansive and ardent without slipping into the bass-drum bluster that so often disfigures routine Berlioz readings. Davis elicits from the orchestra and chorus a subtle blend of passion and restraint, so that besides the Romantic overstatement that one anticipates, there is an Attic austerity that keeps the tragedy in epic perspective. The recording acoustics, which are slightly *sec* but not damagingly so, reveal Berlioz's orchestral imagination with remarkable clarity.

So ambitious a recording has its uneven spots, certainly. The Philips project was to some extent dictated by Covent Garden economics, a reality that is reflected in the routine casting of lesser roles. But Jon Vickers is a magnificently virile Aeneas, and in good voice despite a few pinched top notes. His Aeneas is, as he should be, a muscle-headed hero, wily in war, perhaps, but a lout in love. He reveals twinges of remorse at having to leave Dido, but never for a moment lets one suppose that the call of war and *la gloire* could come off second to human affection. Josephine Veasey, the queen he abandons, sings with unwavering security and velvety mezzo tones, and the pure fury in her denunciations of the destiny-bound male suggests that Dido might have made a formidable



COLIN DAVIS  
*Romantic overstatement and Attic austerity*

Women's Liberation leader. She is more conventionally bereft in the elegiac numbers leading to her suicide, but never less than effective.

The first two acts at Troy fare less well than the Carthaginian ones, chiefly because the Cassandra, Berit Lindholm, was either miscast or vocally out of sorts when the recording was made. Cassandra's music calls for a smoky mezzo-ish quality, and seems to lie too low for the Swedish soprano. In her long scene ending Act I, you hear the voice simply giving out. Her Corebus, Peter Glossop, finds little in an unrewarding part to arouse him to more than adequacy. Later on, at Carthage, matters improve. Ryland Davies makes a good moment of Hylas' song and Heather Begg's gentle Anna is an effective foil to Miss Veasey's distraught and bitter Dido. The Carthage scenes have everything, even (if you admit the possibility in opera) Relevance: notice that Aeneas sneaks into peaceable Carthage, offers his band (just a few military advisors) as allies, and leaves the city broken, leaderless, and a sworn foe of all Trojans.

In a bountiful booklet of notes in French, German, and English—the libretto triple-tongues, too—Colin Davis points out that *Les Troyens* is hardly the time-eating ogre of legend. Almost exactly matching *Tristan* in length, it plays quicker than *Götterdämmerung*, *Meistersinger*, or *Parsifal*. It may fairly be compared to those monsters, too, in having its *quart d'heures* of tedium as well as its *heures* of quality. But the dying canard of Berlioz's eccentricity, amateurishness, and vulgarity will surely be killed and stuffed by this recording.

The performance is a bit vulnerable because its cast is so plainly not French (much of the diction is operatic Franglais, in fact), and also because of an almost simultaneous Angel release in which Janet Baker sings portions of Act V under Alexander Gibson's baton. When Miss Veasey fell ill during the London performance run last year, Miss Baker stepped in and scored a sensation as Dido; the sizable Baker cult may, with some justice, find it hard to accept anyone else's Dido. Still, no sane man will reject this recording on that ground—or any ground at all. Choose whatever standards you like, Colin Davis' *Les Troyens* is indispensable for operaphiles and quite probably the opera event of this—and many another—recording year.

Donal Henahan

**BERLIOZ:** *Les Troyens*. Jon Vickers (tenor), Aeneas; Josephine Veasey (mezzo-soprano), Dido; Berit Lindholm (soprano), Cassandra; Peter Glossop (baritone), Corebus; Heather Begg (contralto), Anna; Roger Soyer (bass), Narbal and Shade of Hector; Anthony Raffell (bass), Panthus; Anne Howells (mezzo-soprano), Ascanius; Ian Partridge (tenor), Iopas; Pierre Thau (bass), Priam, a Trojan Soldier, and Mercury; Elizabeth Bainbridge (mezzo-soprano), Hecuba and Ghost of Cassandra; Ryland Davies (tenor), Hylas; Raimund Herinx (bass), First Sentry and Ghost of Priam; Dennis Wicks (bass), Second Sentry, Ghost of Hector, and a Greek Chieftain; David

Lennox (tenor), Helenus; Wandsworth School Boys' Choir; Chorus and Orchestra of the Royal Opera House, Covent Garden, Colin Davis cond. PHILIPS 6709 002 five discs \$29.95.

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## STEPHEN BISHOP PLAYS IT STRAIGHT

*Conductor and soloist achieve a rare unanimity in  
Beethoven's Fifth Piano Concerto for Philips*

**M**ANY eminent pianists have recorded Beethoven's Fifth Piano Concerto, and at barely thirty Stephen Bishop is a young man to be entering a field so full of famous names. But his new recording of the work for Philips offers a performance worthy of being set not only beside the Arrau, Casadesu, Gieseking, and Serkin versions in the current catalogs; it also fairly meets the challenge raised, in recordings not currently listed, by Edwin Fischer and Artur Schnabel. The question as to whether Bishop and conductor Colin Davis have now, with this performance, superseded the historic partnership of Fischer and Furtwängler is a futile one. On this plane of artistry, a performance can no more be superseded than it can ever properly claim to be definitive.

Anyway, the assertion that Bishop now belongs on this rarefied level of comparison is a large one that will inevitably be disputed in some quarters. In England, where the record was first released, one critic demurred from the general acclamation with the view that Bishop "never really takes hold of the music as if he had made it his own." The very plausibility of that opinion casts

STEPHEN BISHOP: *courage and logic*





TINA TURNER: *healthy, wholesome, and urgent*

light, even for a listener who disagrees with it, on the character of Bishop's interpretation. For it is a plausible opinion. Especially in the first movement, where the tone of any performance is inevitably set, Bishop plays the music unusually straight, with minimal modifications of tempo for local expressive emphasis. In any other work, all the customary guff about "the objective approach" would apply, providing occasion for praise or blame according to where the reviewer stood on that philosophically rickety concept.

But the Fifth is the most serenely architectural concerto Beethoven, or anyone else, ever composed. From the severe and deliberate monotony of the orchestra's exposition onward, it is fashioned from massive blocks of material, grand in scale and quite impersonal in character. And it is precisely in his perception of this quality that the superbly personal greatness of Bishop's performance lies. Whereas many pianists seem intent on smoothing out the uncompromising contours of the work, adding a touch of agitation here and a smidgen of pathos there, he has had the courage and the logic to seek out the concerto's essential nature and, instead of watering it down, to shape his entire conception by it.

That, I think, is why Bishop's first movement moves with so inexorable a tread. The march of time itself is not more majestic than the antiphonal dialogue between piano and orchestra in the coda, with every note audible and in place. This is the keystone of the monumental structure that has been evolving, steadily and inevitably, from the start. The slow movement and finale are shaped with like strength, though their contrasting notes of withdrawn tenderness and of abrupt humor are given full prominence.

Colin Davis' accompaniment perfectly complements the soloist's view. Appropriately, with all its lively

rhythmic eagerness, it is steadier than Furtwängler's equally sympathetic backing for Fischer's more mercurial reading. Helped by a magnificent orchestra and a first-rate modern recording, with finely shaded wind and string timbres and crisp, Beethovenish drums, Davis never fails to catch the full flavor of an orchestral texture: witness the ideal balances of weight and color in the big chordal statement of the first movement's subsidiary theme, and again the vividly characterized interplay of woodwinds and strings in the final statement of the Adagio theme.

This, then, is that rare achievement—a concerto performance conceived with complete unanimity by soloist and conductor, beautifully executed (apart from a touch or two of imperfect orchestral ensemble early in the first movement), and worthily recorded. Moreover, that dissenting critic and I were hearing exactly the same thing, though we interpret it differently. Ours is one of those disagreements of judgment that, I hope, make criticism stimulating—not one of the pure discrepancies of observation that often seem to make it infuriating and useless.

*Bernard Jacobson*

**BEETHOVEN:** *Piano Concerto No. 5, in E-flat Major, Op. 73 ("Emperor").* Stephen Bishop (piano); London Symphony Orchestra, Colin Davis cond. PHILIPS 839794 LY \$5.98.

## ENTERTAINMENT

### TRY A LITTLE TOGETHERNESS WITH IKE & TINA TURNER

*Nice-naughty Tina shines in the immaculate arrangements of Liberty's "Come Together"*

I'VE BEEN hearing a good deal about Ike and Tina Turner over the past year. I keep missing their performances, for one reason or another, but after listening to their new Liberty album "Come Together," I'm convinced that everything I have heard about them must be true. It is truly, as they used to say, a dynamite act. Miss Turner sounds sexy enough to be all the heroines in a Harold Robbins novel, and the support she receives from Ike Turner and the Ikettes has that high, glossy sheen one usually associates with a Streisand, a Lee, or a Diana Ross.

Tina, however, makes abundant use of one gambit all these other ladies are a bit coy about: she aims directly at the gut (or perhaps slightly below it), and her weapon is plain old, or plain new, sex. But it is sex in a musical and musicianly context, neither leering nor lickerish. She makes it all sound very healthy, very natural, very wholesome—and very urgent. *Doin' It*, written by Ike Turner, probably captures her sassy style

better than anything else in the album: she tears into it with the gusto of a lady possessed.

But it is not only in material written especially for her that she shines. I find that her performance of Mick Jagger's *Honky Tonk Women*, for instance, has a good deal more reality and vitality than it did in the original. And Lennon-McCartney's *Come Together* interestingly takes on aspects other than the spiritual when she sings it, as she does, with uninhibited vigor. She has humor, too, as *Too Much Woman (for a Henpecked Man)* admirably demonstrates.

Much of the success of the album must be laid, I am sure, to Ike Turner's immaculate arrangements, and to the real care that has gone into the production. The buoyant Ikettes, though not exactly the Supremes, do an excellent job of supporting the whole. In the time of the turn-on, Miss Turner's may be the ultimate—nice, clean, dirty fun.

Peter Reilly

**IKE & TINA TURNER:** *Come Together*. Tina Turner (vocals); Ike Turner (guitar); the Ikettes; orchestra, Ike Turner arr. and cond. *It Ain't Right; Too Much Woman; Unlucky Creature; Young and Dumb; Honky Tonk Women; Evil Man; Doin' It; Come Together; Why Can't We Be Happy; Contact High; Keep on Walkin'; I Want to Take You Higher*. LIBERTY LST 7637 \$4.98, ® B 7637 (3¾) \$6.95, ® LTR 9029 \$6.98, © C 1029 \$6.95.

## JETHRO TULL: A ROCK-AGE MARVEL

*The group's new "Benefit" for Reprise is a blend of light Irish whimsy and heavy rock*

**JETHRO TULL** the man (1674-1741) was the father of agricultural cultivation as we know it. He invented the seed drill, the horse-drawn hoe, and other implements, and he wrote several essays on how to till the soil. I don't know why Jethro Tull the rock group chose his name to sing and play under; when everything works (and it seems to be working better all the time) the group sounds more like something out of the folk mythology of some strange land.

The arrangements in "Benefit," the group's new album on the Reprise label, seem to me to be the culmination of Ian Anderson's past experimentation and toil, and for it he has written a batch of songs that take advantage of the special flavor of Jethro Tull. They are superficially similar (you may have to hear some of them dozens of times before you can pick up on the lyrics), but that doesn't matter much. One doesn't listen to a Jethro Tull *song*; one listens to twenty-five minutes of Jethro Tull—and then turns the record over.



JETHRO TULL: Ian Anderson, Glenn Cornick, Clive Bunker, and Martin Barre

The elements that make this recording special can be isolated, I suppose. Anderson's flute has a lot to do with it, and then there is the "whiskey voice" harmonizing on the vocals, plus the fact that Martin Barre and Glenn Cornick constitute an excellent rock band all by themselves. But such an analysis is a little less than satisfying. Jethro Tull's sound is the synergistic marvel of the Rock Age when Anderson manages to maintain the delicate balance he seeks. He manages it almost throughout this album.

Not that there aren't high spots. The songs *With You There to Help Me*, with its folk influences, and *A Time for Everything?* are exceptional; *Sossity: You're a Woman* is good, and it sounds even better because of the arrangement, which involves switching to acoustic guitars.

Goat-boys, centaurs, satyrs, and leprechauns (yes, there is more than a little Irish flavor here) play among the chords—at least they do when I listen to them—and then, occasionally, the flute is silent and the group jams with some excellent heavy rock. But no other group sounds quite like Jethro Tull; I don't think any *could*. Perhaps Jethro Tull isn't for everyone, but then what is? Tull makes a personal statement, and I made a personal response. In those terms, this is the best pop album I have heard in months. Four stars. *Noel Coppage*

**JETHRO TULL:** *Benefit*. Jethro Tull (vocals and instrumentals). *With You There to Help Me; Nothing to Say; Inside; Son; To Cry You a Song; Teacher; Play in Time; For Michael Collins Jeffrey and Me; A Time for Everything?*; *Sossity: You're a Woman*. REPRIS 6400 \$4.98, ® B 6400 (3¾) \$6.95.

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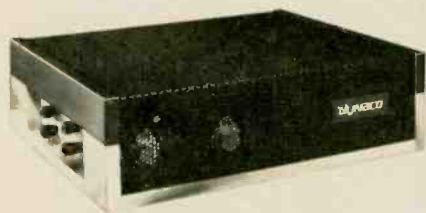
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# CLASSICAL

Reviewed by BERNARD JACOBSON • DAVID HALL • GEORGE JELLINEK  
IGOR KIPNIS • ERIC SALZMAN • LESTER TRIMBLE

## RECORDING OF SPECIAL MERIT

BACH, C. P. E.: *Four 12-Part Sinfonias for Orchestra* (Wq. 183). Leslie Pearson (harpsichord continuo); English Chamber Orchestra, Raymond Leppard cond. PHILIPS 839742 LY \$5.98.

Performance: Exceptional  
Recording: Superior  
Stereo Quality: Excellent

Not too long ago, we had a recording of these four orchestral symphonies from Leslie Jones on Nonesuch 71180. It was an excellent performance and revealed again how important Bach's second son was in the development of the eighteenth-century symphony—and, for that matter, how enjoyable C. P. E. Bach's music can be. These are fine works, quite typical of this Bach's sometimes nervous temperament. There is in them a wealth of melodic ideas, unusual shifts in key, great intensity, and a modern, even Romantic spirit. They were, incidentally, composed during his last years in Hamburg. If you already own the Nonesuch recording, you can be satisfied with that, but those who are about to hear this music for the first time owe it to themselves to hear Leppard's sensational performances. He and his extraordinary ensemble (obviously a more refined group than the Little Orchestra of London) present the scores in a most exciting, crisp, and invigorating manner. There is real fire to this playing. In addition to orchestral virtuosity, though, there is a wonderful feeling for line, for accents, and for dynamic shadings. The reproduction, moreover, is breathtakingly good. I. K.

BACH, J. S.: *Brandenburg Concerto No. 5, in D Major; Air on the G String; Prelude No. 2, in C Minor*. Jacques Loussier Trio; Royal Philharmonic Orchestra, Jacques Loussier cond. LONDON SPC 21044 \$5.98.

Performance: Innovative elegance  
Recording: Brilliant  
Stereo Quality: Excellent

While some of us have been having our attention diverted by other things, the Jacques Loussier Trio has been busy winning coveted awards, like France's Grand Prix du

### Explanation of symbols:

- Ⓡ = reel-to-reel tape
- ④ = four-track cartridge
- Ⓢ = eight-track cartridge
- Ⓢ = cassette

Monophonic recordings are indicated by the symbol Ⓜ; all others are stereo.

Disque, for its daring jazz arrangements of Bach. M. Loussier came to Bach after an unusual apprenticeship as accompanist for Charles Aznavour and other French singers with a rather different repertoire, but Bach is his business now. He certainly conducts it well. Diehards will be disconcerted by the mere idea of Loussier's presumption, but those who listen will discern at once an exceptional grasp of the original intent and, above all, impeccable taste. In the Brandenburg Concerto No. 5, which takes up most of

Angel Records



RAYMOND LEPPARD

C. P. E. Bach sensationally performed

the album, the Royal Philharmonic's superb treatment of the authentic score supports Loussier's improvisations with a rightness that is breathtaking. Substituting a piano for the usual harpsichord, and bringing a bass and drums into the picture for ornamentation, Loussier hews always to a line of development that amounts to a musical commentary on the original material. Especially eloquent is his piano cadenza in the first movement, which finds the twentieth century conversing with the eighteenth easily and elegantly. The last eight minutes of the program are mere filler, but they do sustain the felicitous blending of two idioms. P. K.

BACH, J. S.: *Cantata 56, "Ich will den Kreuzstab gerne tragen"; Cantata No. 82, "Ich habe genug."* Dietrich Fischer-Dieskau (baritone); Munich Bach Choir (in Cantata 56); Munich Bach Orchestra, Karl Richter cond. DEUTSCHE GRAMMOPHON ARCHIVE 198477 \$5.98.

Performance: Overinterpreted  
Recording: Very good  
Stereo Quality: Good

These two cantatas are among Bach's most glorious works for solo voice; the texts the composer chose are in each case full of world-weary expression, even anxiety. There is enormous sentiment to this music, but sentiment is largely lacking in the renditions; what is substituted is, on the one hand, sentimentality (the final chorale of No. 56, for instance, in which Richter progresses from an exaggeratedly hushed first line to an overripe, bombastic final one) and, on the other, a curious, almost Romantic treatment, in which tempos fluctuate too much for the sake of effect (the opening of No. 56). Yet, in spite of the Romantic approach, the "affect" is not here; the recitative in No. 56, in which life's journey is compared with an ocean voyage, is just matter of fact. "Schlummert ein," that gorgeous aria from No. 82, is taken too quickly to convey the desire for final rest. Elsewhere, subtleties of phrasing are glossed over, discords are not sufficiently emphasized, and the pacing does not heighten the drama. As for Fischer-Dieskau, he often seems to be overinterpreting, almost as though he were rendering a Schubert song. This is, of course, preferable to blandness, but the style is not appropriate. In Cantata No. 56, too, he is not in particularly good voice, and his dramatic utterances tend to sound barked and dry; No. 82 finds him in better condition, but the effect is still misconceived. If these criticisms sound harsh, I might suggest that you listen to Fischer-Dieskau's previous recording of No. 56, with Baumgartner conducting, on DGG 138969—it is a far different affair. Best of all, though, I would recommend these same cantatas performed by John Shirley-Quirk, with the Academy of St. Martin-in-the-Fields accompanying (L'Odisseu-Lyre SOL 280); theirs are the most moving performances I have ever heard. I. K.

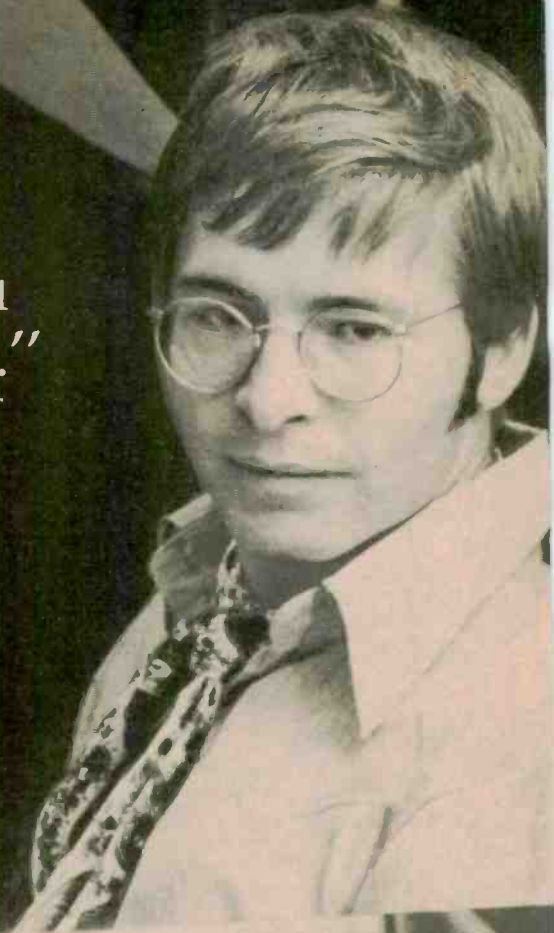
BACH, J. S.: *Prelude and Fugue in A Minor (BWV 543); Chorale Prelude "Jesu Christus, unser Heiland" (BWV 626); Toccata and Fugue, in F Major (BWV 540); Trio Sonata No. 5, in C Major (BWV 529); Chorale Prelude "Gelobet seist du, Jesu Christ" (BWV 604); Prelude and Fugue, in E Minor ("Wedge," BWV 548)*. Anthony Newman (organ). COLUMBIA MS 7421 \$5.98.

Performance: Exciting in the wrong way  
Recording: Excellent  
Stereo Quality: Vivid

This is not the "second" recital recorded by Anthony Newman, as Columbia's publicity attempts, without precisely saying it, to im-

(Continued on page 79)

"Make it part of you  
to be a part of me."  
John Denver



## John Denver on RCA

### Rhymes and Reasons

Yellow Cat

Fromholz

Leaving on a Jet Plane

Denver

(You Dun Stomped) My Heart

Williams

My Old Man

Walker

I Wish I Knew How It

Would Feel to Be Free

Taylor-Dallas

Today Is the First Day of

the Rest of My Life

Fugacity (P. & V. Garvey)

The Love of the Common People

Hurley-Wilkins

Catch Another Butterfly

Williams

Daydream

Denver

The Ballad of Spiro Agnew

Paxton

Circus

Denver-Johnson

When I'm Sixty-Four

Lennon-McCartney

The Ballad of Richard Nixon

Rhymes & Reasons

Denver

Take me to tomorrow

Take Me to Tomorrow

Denver

Isabel

Denver

Follow Me

Denver

Forest Lawn

Paxton

Aspenglow

Denver

Amsterdam

Brel-Shuman

Anthem — Revelation

Denver

Sticky Summer Weather

Denver

Carolina in My Mind

Taylor

Jimmy Newman

Paxton

Molly

Rose

Available at all leading record stores.

ply; his earlier disc for Columbia was preceded by one made for the Los Angeles label Sheffield. Like those previous productions, the new collection is clearly the work of a brilliant and unconventional young musician. Equally clearly, it is a seriously flawed effort.

One of its imperfections may well stem from the instrument used here—the new Noack organ at Trinity Lutheran Church in Worcester, Mass.—and not from a weakness in Newman's playing. The pedals on this instrument seem to speak more slowly than the manuals, and the result is rather like an inverted version of the bad habit common among Romantic pianists of the old school: a pervasive spreading of chords, with the bass here sounding after the treble instead of before. This disturbing effect can, if you want to check it out, be heard most nakedly in the slow movement of the Trio Sonata, where texture and tempo conspire to prevent any camouflaging of it, but I suspect it may also lie behind the general sense of rhythmic instability that vitiates all six performances.

Nevertheless, if this cannot be laid entirely to Newman's charge, I think he makes things worse by reckless choices of tempo. The jerkiness of the little cadential figures in the F Major Toccata is one example that could be multiplied many times over. At these speeds, not even technical equipment as imposing as Newman's can suffice to insure really secure rhythm and clean articulation. And so, for all the excitement he generates, the music tends to get lost in the shuffle. I compared some of Newman's performances with the outstanding ones of Lionel Rogg on Epic. At the end of Newman's gallop through that F Major Toccata and Fugue, for instance, I could not restrain a "wow!" of astonished admiration for what he *does* succeed in achieving; after listening to Rogg's performance (which takes more than three minutes longer), I found myself murmuring "beautiful!"—and the crucial difference is that in the first case I was thinking of Anthony Newman, and in the second of Bach.

If you prefer the "wow-what-a-player" feeling to the "what-marvelous-music" feeling, you will enjoy this record. The liner notes contribute to the general effect, since they devote one column to a puff for Newman and the other two to Newman's own discussion of Bach's astrological chart. Not a single word is allotted to the music, and the most depressing aspect of the astrological nonsense is its utter pointlessness. Newman simply lists features of the chart as suggestive of one human characteristic or another, and then adduces instances from Bach's life and work to show that he really *was* that way. I am at a loss to see how this conveys any more information than a straight recital of the biographical facts would have done. Maybe this is prejudice, but such fatuous exegesis seems to me merely a more glaring manifestation of the intellectual irresponsibility to be found in the actual playing. I sympathize with Newman's desire to emancipate himself from traditional molds. But this is not the way to do it. B. J.

### RECORDING OF SPECIAL MERIT

BARBER: *Sonata for Piano, Op. 26*.  
GINASTERA: *Sonata for Piano*. Robert Guralnik (piano). MACE MXX 9085 \$2.50.

Performance: Excellent  
Recording: Excellent  
Stereo Quality: Excellent

This is a splendid pairing of two of the few contemporary piano sonatas that have managed to find their way into the limited recital-hall repertoire. Robert Guralnik approaches them with gusto and a great deal of technical aplomb. He's got strong, well disciplined fingers; the fast, energetic passages in which the sonatas abound come through marvelously. On an interpretive level, Guralnik is so musicianly that I almost hate to criticize lest I make his achievement sound more limited than it really is. His strong suit however, does not seem to be variety of tonal color. Possibly this impression derives in part from the bright, "up-front" sound of the recording. But there are times, as in the *Presto misterioso* movement of the Ginastera Sonata, when one might wish for a little less rationality and a stronger dose of something like melodrama. In the Barber Sonata, too, there are occasions when some relaxation of forward drive would have allowed key phrases to speak with subtler impact. Nevertheless, these are first-rate performances, and no mistake about it. The recording, too, is very fine. L. T.

BETHOVEN: *Piano Concerto No. 5* (see Best of the Month, page 72)

BETHOVEN: *Piano Sonatas: No. 8, in C Minor, Op. 13 ("Pathétique"); No. 14, in C-sharp Minor, Op. 27, No. 2 ("Moonlight"); No. 23, in F Minor, Op. 57 ("Appassionata")*. Glenn Gould (piano). COLUMBIA MS 7413 \$5.98.

BETHOVEN: *Piano Sonatas: No. 8, in C Minor, Op. 13 ("Pathétique"); No. 14, in C-sharp Minor, Op. 27, No. 2 ("Moonlight"); No. 23, in F Minor, Op. 57 ("Appassionata")*. Wilhelm Kempff (piano). DEUTSCHE GRAMMOPHON 139300 \$5.98, ® L 9300 (7½) \$7.95.

Performance: Look somewhere else  
Recording: Columbia excellent, DGG good  
Stereo Quality: Both odedquote

Glenn Gould's recording of the "Appassionata" marks several notable milestones in the history of recordings. For starters, this seems to be the first time that a noted performer takes half the liner of his album to attack the principal work that he has recorded inside. Mr. Gould also smashes all records by managing to increase the length of a major repertoire work almost 50 per cent without taking a single additional repeat; and this historic achievement is accomplished with slow tempos alone. He has established that the "Appassionata" is bad Beethoven; he clinches the point with his interpretation.

Don't go and get the idea that Mr. Gould is making things easier for himself by playing slowly. It is virtually impossible to sustain a Beethoven *allegro* at an *andante* pace or an *andante* as a *lento*. Try reading Shakespeare with a two-second pause between each word and make sense out of it. Try to take the passion out of the "Appassionata"—a thankless task if ever there was one. The pianist's brilliancies are not always totally capricious. His last-movement *allegro* is, for once, truly *non troppo*, and the presto is a knockout. The first movement of the "Moonlight" is surprisingly effective at a brisk, non-dreamy clip and the Allegretto is perfectly paced (but the furious finale scatters C-sharp Minor all over the lunar landscape). The "Pathétique" is whiz-bang with

a fast, rigid first movement—not a success. Gould might get away with more if it were not for his blatant disregard of Beethoven's most explicit markings: sforzandos, sudden hushes, clear phrasing marks or their absence, all blithely ignored. Beautiful piano sound with lots of Gouldian hums. What more can be said? A great mannerist performer-philosopher in the twilight of the classical tradition is purveying his Alexandrian interpretations in a grand, doomed effort to squeeze some new meaning out of the pots and shards.

Admittedly "Beethoven year" performances like those on the Kempff disc—coincidentally the same three "pop" sonatas—are enough to make one despair of "the classical tradition." The whole apparatus of bourgeois Germanic pseudo-profundity is trotted out. A Mass for St. Beethoven! Mumbled so it sounds like Latin. Okay, I'm being hard on Kempff, a second-rate academic pianist who has the luck to appear on a first-rate Central European label. He is at his best when he plays simply—in those divine, simple Beethoven slow movements. But Kempff's *allegro* is distinctly without *brio*, his *allegretto* is sluggish, and his heavy-handed finales are invariably a down. The piano sound is a little distant, but otherwise good. E. S.

#### RECORDING OF SPECIAL MERIT

**BEETHOVEN:** *String Quartets: No. 12, in E-flat Major, Op. 127; No. 13, in B-flat, Op. 130; No. 14, in C-Sharp Minor, Op. 131; No. 15, in A Minor, Op. 132; No. 16, in F Major, Op. 135; Grosse Fuge, Op. 133.* Guarneri Quartet. RCA VCS 6418 four discs \$11.98.

Performance: Generally beautiful  
Recording: Superb  
Stereo Quality: Splendid

I've always said that if I had to make the choice of a very few records to take with me to a desert island, I'd choose recordings of the last five Beethoven string quartets. Now, with the arrival of this new album (complete with the *Grosse Fuge*) by the Guarneri Quartet, I've got my island package. All I need is the island.

The Guarneri is, without a doubt, one of the most extraordinary string quartets before the public these days: the group has an absolutely stunning sense of both soloistic and ensemble color. Indeed, I can't think of another string quartet that can match them for sheer sensuous appeal. Arnold Steinhardt, the first violinist, produces a tone so deliciously sweet that I'm only amazed it never cloy. John Dalley, the second violinist, Michael Tree, the violist, and David Soyer, the cellist, make equally gorgeous sounds. And all four are not only strikingly individual, but perfectly matched within the group.

It is obvious that the quartet has been influenced in its stylistic approach by this beauty of instrumental sound. They orchestrate everything. An imitation by the second violin of a phrase just played by the first is treated not only as a melodic event. It is, as well, an occasion for *timbre* adjustment, so that one *really* hears two totally differentiated statements of the phrase.

And, speaking of phrase, it must be said that the Guarneri Quartet so constantly articulates elements of the rhetorical structure

that absolutely nothing is left unexpressed. If there is any real criticism to be made of their interpretations, it would be that they sometimes over-exert themselves in this regard, ignoring the messages (tacit or overt) of the printed music-page in order to make their own interpretive points. To my mind, their performance of the Opus 130 Quartet is the most consistently remarkable precisely because it sticks closest to the music.

In the other quartets, the ensemble departs more frequently and decisively from the printed page, applying *ritardandi* in places where they are unnecessary and even counter-productive in a musical sense. The only place where tonal splendor deserts them, however, is in the *Grosse Fuge*, where we are suddenly struck by scratchy, "forced" tone. I'll grant that this movement is difficult, strident,

end of Berlioz's creative life—*Le Temple universel*, composed in 1860 with a double chorus of eight thousand voices in mind.

In general, the range of expression represented by these eleven songs runs from pallid-triadic (*Prière du matin, Veni Creator*) to militaristic-unisonal (*Hymne à la France*). On the other hand, *Le Temple universel*, with its plea for a United States of Europe, bears a curious and effective kinship to the sublime Masonic choruses of Mozart's *Zauberflöte*. The real Berlioz emerges in the highly original and evocative *Ballet des ombres*, also dating from 1829. A key phrase of this work was to turn up a decade later in the *Queen Mab* Scherzo of the *Romeo and Juliet* Symphony.

Direct comparison of the *Irlande* selections here with those on the Oiseau-Lyre disc is revealing. Though the choral ensemble receives better-focused recording on the latter, the male soloists on the Argo label are in better vocal control, and Norrington's tempos are far livelier in the *Chanson à boire*. Side one of my Argo review disc was noticeably off-center. D. H.

**BERLIOZ:** *Les Troyens* (see Best of the Month, page 71)

**BLOCH:** *Sinfonia Breve* (see KOUSSEVITZKY)

**BOULEZ:** *Improvisation No. 2, sur Mallarmé* (see DALLAPICCOLA)

**BUSONI:** *Doktor Faust*. Dietrich Fischer-Dieskau (baritone), Doktor Faust; Karl Christian Kohn (baritone), Wagner; William Cochran (tenor), Mephistopheles; Anton de Ridder (tenor), Duke of Parma; Hildegard Hillebrecht (soprano), Duchess of Parma; Chorus and Symphony Orchestra of the Bavarian Radio, Ferdinand Leitner cond. DEUTSCHE GRAMMOPHON 139291/2/3 three discs \$17.94.

Performance: Okay, but not ideal  
Recording: Ditto  
Stereo Quality: Good to very good

Ferruccio Busoni's *Doktor Faust* must really be added to that small list of music dramas that renew the Wagnerian tradition and carry it forward into the twentieth century. *Doktor Faust* is, of its kind, a masterpiece. The qualification is not meant to modify rapture; "of its kind" really means one of a kind, *sui generis*. Like many of the best post-Wagnerian music dramas, it led nowhere, but is in itself a deeply impressive work which should be kept alive. It can be considered the composer's testament—his *magnum opus*, and the summing-up of his final years. Like some other famous "last" works, it was left unfinished by the composer at his death and completed by a pupil and follower. Philipp Jarnach's contribution apparently consists mostly of the final scene, in which the Busonian material is skillfully used.

Busoni wrote his own libretto—in German!—and his treatment of the subject represents, in part, a return to the earlier, popular versions of the Faust legend and in part a philosophical allegory of the composer's own devising. The distinctions between the demonic (out of Liszt), the popular elements (court pageant, student choruses, etc.), the endless melodizing (music-drama musings *à la Wagner*), the harmonic and orchestral

(Continued on page 82)

## Next Month in Stereo Review

Four-channel Progress Report  
by Larry Klein

European Record Companies  
by Richard Freed

Two Views of  
TOM JONES

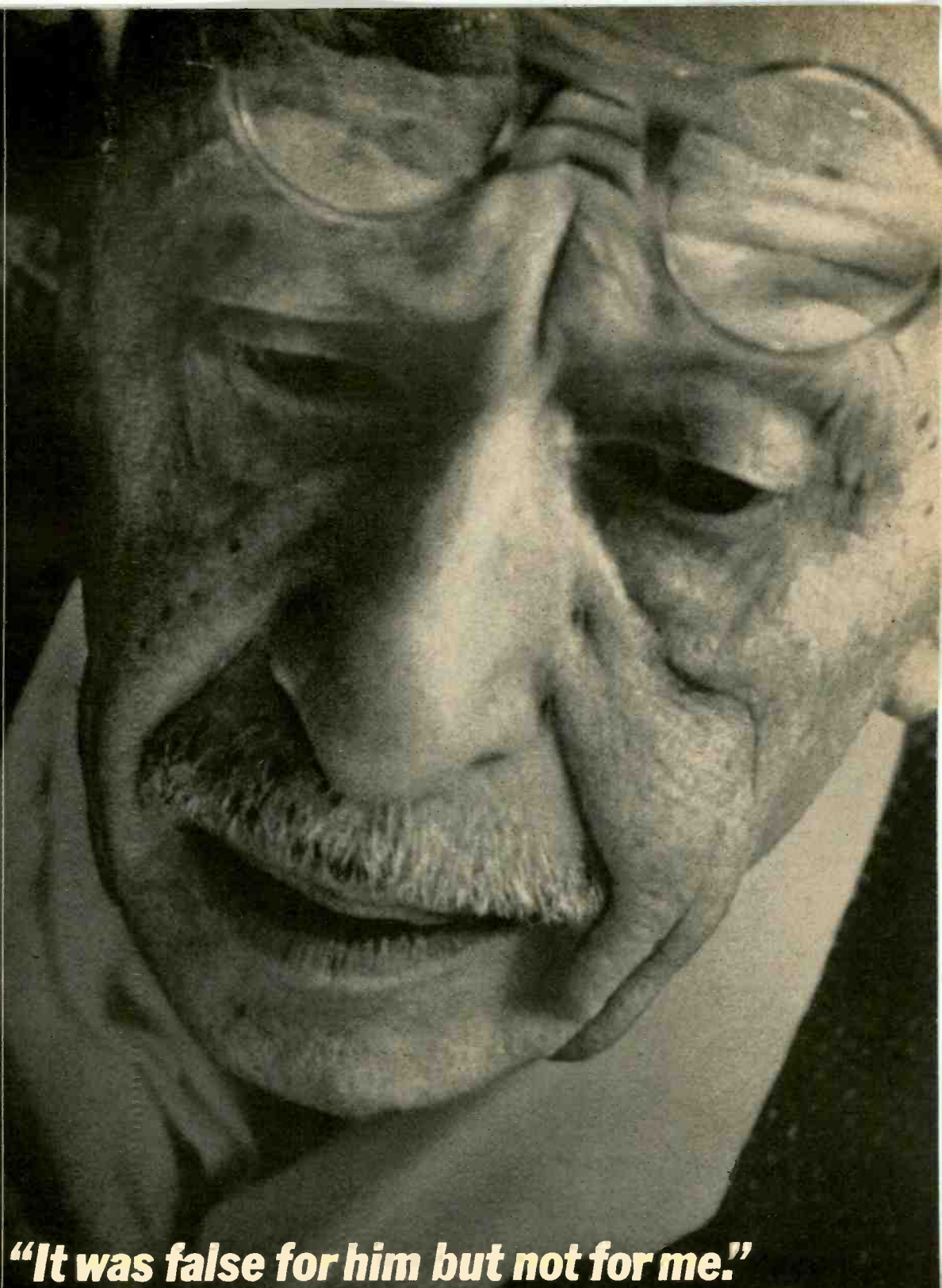
and nervous in itself, but for these very reasons one hardly needs still another level of exacerbation. L. T.

**BERLIOZ:** *Chant guerrier; Prière du matin; Le Temple universel; Chant sacré; Ballet des ombres; La Menace des Francs; Veni Creator; Hymne à la France; Tantum ergo; Chant des Bretons; Chanson à boire.* Ryland Davies (tenor); David Thomas (baritone); Peter Smith (piano, harmonium); Heinrich Schütz Choir and Chorale, Roger Norrington cond. ARGO ZRG 635 \$5.95.

Performance: Vigorous  
Recording: Fair  
Stereo Quality: Acceptable

In comparison with the *Symphonie fantastique*, the *Requiem*, the best of the overtures, or the *Nuits d'été*, these choral songs by Berlioz are mere chips from the master's workbench. Yet there are bits here and there that seize the imagination or anticipate a later and larger masterpiece.

The earliest of the choruses recorded here date from 1829—*Chant guerrier, Chanson à boire*, and *Chant sacré*—these being part of the nine settings of Thomas Moore called *Irlande* (recorded in its entirety on Oiseau-Lyre SOL 305); the latest comes from the



Almost sixty years ago, Igor Stravinsky sat composing "Le Sacre du Printemps." A young boy playing outside his window kept calling to him as he worked, "It is false, the notes are wrong."

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modernism, and the musico-intellectual Busonisms are striking and the attempt (in part, at least, by Jarnach) to achieve a final musical and dramatic synthesis of these rather disparate strands is not completely successful. But the "problem" vanishes the moment the diversity of levels ceases to be felt as stylistic discrepancies.

The recording of this important work poses one of those typical problems of the reviewer. The fact that Bavarian Radio and DGG chose to record the work at all is admirable, but the truth is that the result is less than ideal. The worst of it is the rather brutal and often senseless hacking operation that has been performed on the score—a few lines omitted here, a few pages there, bits and pieces sliced out everywhere. One example: the orchestral introduction to the final scene is entirely omitted, creating an awkward opening and robbing the climactic moment of its musical value as a thematic return. Even practical considerations will not hold water here, since there is plenty of room on the disc side for the missing few minutes.

The undoubted origin of the recording as a radio broadcast probably accounts for (though hardly justifies) many of the problems. I would describe the orchestral performance and general direction as adequate to good but not generally inspired. Fischer-Dieskau is, on the whole, admirable; now and then, he displays a tendency to lunge about vocally at the top. Hildegard Hillebrecht has a few screaming high notes; otherwise she is effective. The rest of the cast and the chorus are good. The recorded sound is somewhat variable: Fischer-Dieskau is always allowed to dominate—even to the point of wiping out the orchestra while some other vocal lines are curiously and inexplicably distant. Let's say that one can get a strong image of the work from this recording; it's just too bad that it couldn't have been a bit closer to the total conception as it has been passed on to us. E. S.

#### RECORDING OF SPECIAL MERIT

**CAGE:** *Music for Keyboard 1935-1948*. *Two Pieces* (1935); *Metamorphosis* (1938); *Bacchanale* (1938); *The Perilous Night* (Winter 1943-44); *Tossed as It Is Untroubled* (1943); *A Valentine out of Season* (1944); *Root of an Unfocus*; *Two Pieces* (1946); *Prelude for Meditation* (1944); *Music for Marcel Duchamp* (1947); *Suite for Toy Piano* (1948); *Dream* (1948). Jeanne Kirstein (piano, "prepared piano," toy piano). COLUMBIA M2S 819 two discs \$11.96.

Performance: **Splendid**  
Recording: **Excellent**  
Stereo Quality: **Excellent**

John Cage has invented many things, but none of his renegade musical ideas has been as charming as the "prepared piano." Time was when pianists huffed at the very idea of attaching nuts, bolts, erasers, screws, etc., to the strings of their instrument to produce the delicious galaxy of percussive sounds Cage had envisioned. I doubt many pianists even now play "prepared piano" pieces in recital. But at least they don't explode at the idea.

Jeanne Kirstein has recorded four sides of Cage's keyboard music, spanning the years from 1935 to 1948. There are pieces for piano and "prepared piano," and one written in 1948 for a toy piano. Not surprisingly, they

sound less revolutionary than they once did. That is the way with all initially startling works.

The scales from which Cage constructed much of this music are simple, and his treatment of them is essentially gentle and conservative. The actual core of his composing style is rhythm, which he treats with immense originality. Some of the pieces are almost ascetic in their use of tiny microcosms of sound varied by rhythmic manipulation rather than melodic development. Cage's involvement with dance, through his long association with Merce Cunningham, provided him with the kind of rhythmic inspiration that the Diaghilev Ballets gave Stravinsky.

In later works, Cage has tried to eschew the personal touch by various means, such as casting dice or using the *I Ching* as a way of selecting his musical materials. He also "com-



JOHN CAGE  
*Immense rhythmic originality*

posed" a totally silent composition (4' 33") of which I wrote in the New York *Herald Tribune* back in the Fifties that "it's difficult to know whose music is not being played, or if, indeed, nobody's music is being played at all."

But in the period represented by these piano works, Cage's personality was still discernible in the music he wrote, rather than just in the intellectual concepts out of which he arrives at working methodologies. In these pieces, the combination of an almost incantatory modality, exceptionally sensitive timbres, and stark rhythmic effects that verge on ritualism were his trademarks. Some of the works call for considerable patience on the part of the listener. The pieces do not flinch from monotony. Rather, they embrace it as part of the aesthetic. And that is interesting.

Miss Kirstein plays with unflinching elegance and conviction. She makes lovely sounds. On my equipment, some faint pre-echoes can be heard in silent grooves. However, quiet as they are, they are more a curiosity than a nuisance. L. T.

**CHAUSSON:** *Viviane, Op. 5* (see SCHMITT)

**DALLAPICCOLA:** *Parole di San Paolo; Concerto per la Notte di Natale dell'Anno 1956*. **BOULEZ:** *Improvisation No. 2, sur Mallarmé, "Une dentelle s'abolit."* **POUSSEUR:** *Trois Chants Sacrés*. Valarie Lamorée (soprano), Benita Valente (mezzo-soprano); Philadelphia Composers' Forum,

Joel Thome, music director and cond. CAN-DIDE CE 31021 \$3.98.

Performance: **Very good**  
Recording: **Excellent**  
Stereo Quality: **Excellent**

The Philadelphia Composers' Forum, one of a number of older American groups dedicated to new music, has recently taken on new life under the direction of an enterprising, take-charge director, Joel Thome. It must be pointed out, however, that the group relies heavily on outside talent: perhaps half the musicians here are well-known New York free-lance and chamber-music players. But whatever the sources of talent, it all comes together to produce an attractive record.

Thome's repertoire here (not necessarily typical of the recent work of the group) is European serialism of the delicate timbre-sensitive variety. Jon Appleton's notes make an accurate distinction between the "Expressionist" linear style of Dallapiccola and the much more abstract "pointillistic" landscapes of Boulez and Pousseur but, as he also notes, the works have much in common. In retrospect there is a curious nostalgia about these products of the Fifties (and, in one case, early Sixties), a kind of series of distant vibrations, delicate nuances, and regretful sighs—sad farewells, as it were, to a great tradition. Quite beautiful, excellently well performed, and exceptionally well recorded. Minus marks only for the pressing. E. S.

**DUPARC:** *Lénoire* (see SCHMITT)

**ELGAR:** *Piano Quintet, in A Minor, Op. 84; Concert Allegro, Op. 46; Sonatina; Adieu; Serenade*. John Ogdon (piano); Allegri Quartet. ANGEL S 36686 \$5.98.

Performance: **Good**  
Recording: **Good**  
Stereo Quality: **Good**

Elgar's A Minor Piano Quintet of 1918 is one of the last major works in the composer's canon, the Cello Concerto of the following year being the only large-scale composition subsequently to come from his pen. The Concert Allegro for piano, dating from 1901 when Elgar was at his creative peak, stands as a substantial discovery: it was never published during Elgar's lifetime, and the manuscript was thought to have been lost among the belongings of pianist Fanny Davies, for whom he wrote the work. Indeed, the Concert Allegro is the only major piano work among the nine listed in *Grove's Dictionary of Music and Musicians*. I can't fathom why the *Sonatina*, *Adieu*, and *Serenade*—all mere chips from the workbench—were included in this Angel package. And I can't understand why the sleeve notes fail to include a single piece of meaningful information about the music recorded here, none of it, it seems to me, is going to be at all familiar to non-English audiences.

The Concert Allegro is an effective bit of post-Brahmsian piano writing, also containing, here and there, suggestions of Busoni and Liszt. John Ogdon, who excels in the music of both of these last-named composers, is certainly the man to play the Elgar too. His mastery of phrasing and pianistic tone color is phenomenal in the lyrical episodes, and his handling of the full-blooded climaxes recall those of the Carl Nielsen

Symphonic Suite in his RCA disc devoted to the Danish master's piano music.

The Elgar Quintet is an amalgam of Brahms and Franck: there is a solid Brahmsian bass line and full harmonic texture, and a Franckian cyclic procedure. The tone of the work as a whole is lyrical and dramatic, and it reaches its most eloquent expression in the noble slow movement. Curiously striking is a recurrent motive, heard in the opening pages, that is redolent of the *Dies irae*. The summer cottage where Elgar composed much of the Quintet was located on a plateau whose gnarled trees at twilight suggested ghostly human forms, and Elgar was said to have been fascinated by the local story that these trees were the forms of a community of Spanish monks struck dead centuries before in the midst of blasphemous rites. Legendary inspiration or no, the Elgar Quintet is a fine late-Romantic work worthy of more frequent hearing.

A Dover disc of the Quintet, taken from a 1963 British recording with Leonard Cassini and the Aeolian Quartet, has been available for some years, but on comparison it represents no competition in terms of either musical communication or sonic richness for this new Angel disc. The Ogdon-Allegro Quartet reading is both more swiftly paced and more impassioned, and the Dover sound seems anemic when heard against Angel's.

D. H.

ERB: *Reconnaissance; In No Strange Land*. Stuart Dempster (trombone); Bertram Turetzky (double-bass); Bonnie Douglas (violin); Rand Forbes (double-bass); Ralph Grierson (piano); Kenneth Watson (percussion); Michael Tilson Thomas (Moog synthesizer); Leonard Stein (Moog polyphonic instrument); Donald Erb cond. NONESUCH H 71223 \$2.98, ® E 1223 (3¾) \$4.95, © M 81223 \$6.95.

Performance: Excellent  
Recording: One good, the other fair  
Stereo Quality: Essential

This is part of the Nonesuch commissioning series, but it is more a "live" performance record than a disc of electronic music. Both pieces use conventional instruments and electronic sounds on an equal plane. *Reconnaissance* employs a Moog synthesizer and a Moog keyboard instrument (far from the same thing, by the way) as "live" members of the ensemble. *In No Strange Land* takes a slightly different approach. It has tape tracks realized at the Moog studios in Trumansburg, N.Y., and instrumental tracks realized in La Jolla, California, by two instrumental masters: Stuart Dempster and Bertram Turetzky. Both works display a high degree of tone-color fantasy spattered irregularly over a rather shapeless seventeen-minute stretch. In spite of the incredible virtuosity of Messrs. Dempster and Turetzky, *Reconnaissance* is by far the more arresting, better recorded, and more acoustically integrated work. But, like its partner, it has a strong start and runs out of steam not half way through.

E. S.

#### RECORDING OF SPECIAL MERIT

FLOTOW: *Martha*. Anneliese Rothenberger (soprano), Lady Harriet Durham; Brigitte Fassbaender (mezzo-soprano), Nancy; Nicolai Gedda (tenor), Lionel; Hermann Prey (baritone), Plunkett; Dieter Weller

(baritone), Lord Tristram Mickleford; Hans Georg Knoblich (bass), the Sheriff of Richmond; others, Chorus and Orchestra of the Bavarian State Opera, Munich, Robert Hager cond. ANNELIESE ROTHENBERGER: *Recital*. Mozart: *Don Giovanni: Vedrai carino*. Weber: *Der Freischütz: Wie nahe mir der Schlummer . . . Leise, leise; Und ob die Wolke*. Bizet: *Carmen; Je dis que rien ne m'épouvante*. Dvořák: *Rusalka: Du lieber Mond*. Bavarian State Opera Orchestra, Hermann Hildebrandt cond. ANGEL SCI 3753 three discs \$17.94.

Performance: Outstanding  
Recording: Excellent  
Stereo Quality: Very good

Heaven knows the Metropolitan Opera has

tried, but American audiences just don't seem to take to Flotow's *Martha*. The English-language performance was no help, either. And this despite the fact that *Martha* is an opera on an English subject—courtly escapades in the time of Queen Anne—with *The Last Rose of Summer* skillfully woven into its musical fabric. There are other "English-sounding" moments in the music, leaving no doubt about Flotow's influence on a subsequent manipulator of similar ingredients, Sir Arthur Sullivan. And here may be the rub: *Martha*, with its far-fetched plot (high-born ladies falling in love with plebeian lads who turn out to be properly highborn gentlemen just in time for the final curtain), is very much like a Gilbert and Sullivan operetta but without Gilbert's sardonic point of

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## Orchestre de Paris

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view. It takes itself seriously, and *that*, in 1970, spells trouble. Hearing it in German, then, is better for us, I think, for it is thus removed a step toward the exotic.

Angel's new recording is the opera's first stereo recording, and it is a total success. Whatever reservations we may have about the story, Flotow's music is consistently engaging and skillful, and it comes to sparkling life in the loving hands of the veteran conductor Robert Heger. He savors the score's melodic riches, revealing its modest subtleties with the fastidious care other conductors reserve for Gustav Mahler and Richard Strauss. He treasures its gentle contrapuntal intricacies and revels in its moderately witty touches of orchestration—in short, he makes *Martha* seem dangerously close to being a masterpiece.

The principals were hand-picked by Maestro Heger, according to the accompanying notes, and they form an ideal cast indeed. Anneliese Rothenberger's singing is a model of purity, accuracy, and security. Nicolai Gedda, in excellent form throughout, turns "*Ach, so fromm*" ("*M'appari*") into a tour de force by singing the second verse in a sustained, insinuating *mezza-voce*. The role of Plunkett is for once not given to a beefy bass-baritone: Hermann Prey, perfectly cast, makes the character sound young, manly, and extremely sympathetic. And if the part of Nancy could use a weightier voice than Brigitte Fassbaender has at her command, she supplies charm and temperament in abundance. The Munich Chorus and Orchestra perform in the brilliant manner that is characteristic of the entire production.

The album's sixth side is devoted to an opera recital by Miss Rothenberger. There is a certain uneasiness about Micaela's air here, and the concluding portion of Agathe's Prayer from *Freischütz* needs a weightier sound and a more dramatic approach, but Agathe's "*Und ob die Wolke*" and the Mozart and Dvořák arias are both exquisitely performed. G. J.

**GINASTERA: Sonata for Piano** (see BARBER)

#### RECORDING OF SPECIAL MERIT

**GRIEG: Slåtter (Norwegian Peasant Dances), Op. 72.** Vladimir Pleshakov (piano). ORION ORS 6908 \$5.98.

Performance: Generally good  
Recording: A mite bass-heavy  
Stereo Quality: Sufficient

At the risk of seeming rash and headstrong, I say baldly that this disc of Edvard Grieg's last major works for piano—the *Slåtter*, piano versions of seventeen Norwegian peasant dances for Hardanger fiddle—is the most fascinating and significant of his works currently available on record. Only the *Haugtussa* song cycle (recorded by Kirsten Flagstad and now out of print) and the G Minor Ballade (recorded by Artur Schnabel and also out of print), together with certain of the Lyric Pieces for piano—*Bell Ringing* and *Evening in the Mountains*—are of comparable individuality and stature.

At the turn of the present century, the danger that the wild and elaborately ornamented Hardanger fiddle music from the West Coast of Norway would be extinguished by urban and foreign influences was very real. At the urging of Knut Dale, one of

the foremost of the old-time fiddlers, Grieg agreed to attempt a project designed to preserve in musical notation but in piano medium the old melodies in their authentic form. To this end, he enlisted the services of composer-violinist Johan Halvorsen, who notated the tunes in violin form from Knut Dale's playing, and from this Grieg prepared the piano transcriptions in 1902, anticipating by some four years the Hungarian folk-song transcriptions of Kodály and Bartók.

Like Kodály and Bartók, Grieg steers clear of Romantic coloration and elaborate polyphonic elaboration. Occasionally, as in the *Halling from Gnomes' Hill* (No. 4), there is a degree of musical expansiveness—and in this connection it is fascinating to listen to side four, band 4, of Volume Nine of "The History of Music in Sound" (RCA Victor LM 6153); there this same tune is played



NICOLAI GEDDA  
*A tour de force in Martha*

first in its original Hardanger-fiddle form, then in Grieg's transcription. I recall, as a matter of fact, hearing of a project to be undertaken by Philips in Norway to record the *Slåtter* on both Hardanger fiddle and in Grieg's piano version, but I have never seen or heard tell of the finished discs.

Once heard, by the way, the sound of the Hardanger fiddle is not easy to forget. The four sympathetic strings underlying those that are played upon add enormous resonance and acoustic power to the instrument, which is intended for outdoor use. The highly ornamented Hardanger-fiddle idiom is closely akin to that of Scottish bagpipe music. The chief dance forms are those of the wedding march, the walking dance (*gangar*), the more capriciously rhythmical *springar*, and the acrobatic solo men's dance known as the *halling*. The ones Grieg set include four wedding marches, three *gangar*, four *springar*, five *halling*, and a Goat-horn dance. The colorful names attached to the tunes, such as *The Miller Lad's Wedding March*, *Goblin's Bridal Procession*, *Kivleedal Girls*, and *Jon Vestafae's Springdans*, are of a piece with such American mountain fiddle numbers as *Uncle Charlie's Breakdown*, *The Scotch Musick*, or *Old Joe Clark*.

In any event, the Grieg settings are masterly in their preservation of ornament and dissonance, and wholly fascinating to hear. It was interesting to compare the long out-of-print Andor Foldes Mercury recording of 1953—the first complete version—with this new Orion disc done by Shanghai-born Vladi-

mir Pleshakov, now of the Yehudi Menuhin School of Music at Menlo Park, California. Foldes is more rhythmically incisive, but also somewhat four-square. Pleshakov plays a bit more freely with the rhythm, recapturing, thereby, something of the essential organic quality of the fiddle performance as against the necessarily more mechanical limitations arising from the nature of the keyboard instrument. My only criticism of the recorded sound here is a slight overweighting of the bass, which can be corrected by bass-control adjustment in playback. This unique recording belongs in anyone's record collection as essential and wholly different Grieg. D. H.

#### RECORDING OF SPECIAL MERIT

**KOUSSEVITZKY: Concerto for Double Bass and Orchestra.** Gary Karr (bass); Oslo Philharmonic, Alfredo Antonini cond. **BLOCH: Sinfonia Breve.** Minneapolis Symphony, Antal Dorati cond. COMPOSERS RECORDINGS, INC. CRI SD-248 \$5.98.

Performance: Both splendid  
Recording: Handsomely warm  
Stereo Quality: Excellent

This recording is clearly a labor of love. Serge Koussevitzky's youthful start as a double-bass virtuoso, and the fact that he had composed some music for that instrument, were legends even while he was alive and doing much for American composers from his position as conductor of the Boston Symphony Orchestra. According to the liner notes on this release, he made his only recording as a bassist in 1929 (for Victor), and then laid aside the instrument forever.

The young Los Angeles bassist Gary Karr at some point inherited this stupendous instrument, one of only three constructed by the great seventeenth-century violin maker Amati, and he plays it on this recording. Credit for resuscitating the Koussevitzky score goes to conductor Alfredo Antonini, who found the sole manuscript of this work in the late composer's personal library and made it ready for use. He then programmed the piece on a CBS-TV program with young Karr as soloist.

No doubt I am hearing this concerto through prejudiced, even sentimental ears. I admit to having some affection for Koussevitzky, who was not only an exceptionally sensitive conductor, but who also battled consistently for American music and American composers. Without him, the composing careers of Aaron Copland, Leonard Bernstein, Lukas Foss—and many others—would probably have been different. To say nothing of some conducting careers! Thus, when I hear undiluted Tchaikovsky in the opening strains of this 1902 concerto, and thereafter as well, I am not at all upset. What interests me more is the sweet sincerity of the piece, the always graceful writing, and the many touches which, though utterly nineteenth-century in style, are nevertheless fresh and personal. They evoke Koussevitzky himself, and with such great immediacy that the recording becomes a treasure. The performance is lovely, beyond cavil.

This recording of Ernest Bloch's *Sinfonia Breve* is a reissue of a record originally put out by Mercury. In keeping with CRI's policy of restoring worthy recordings of twentieth-century compositions to the catalog, they obtained the rights for re-release and now have

(Continued on page 86)



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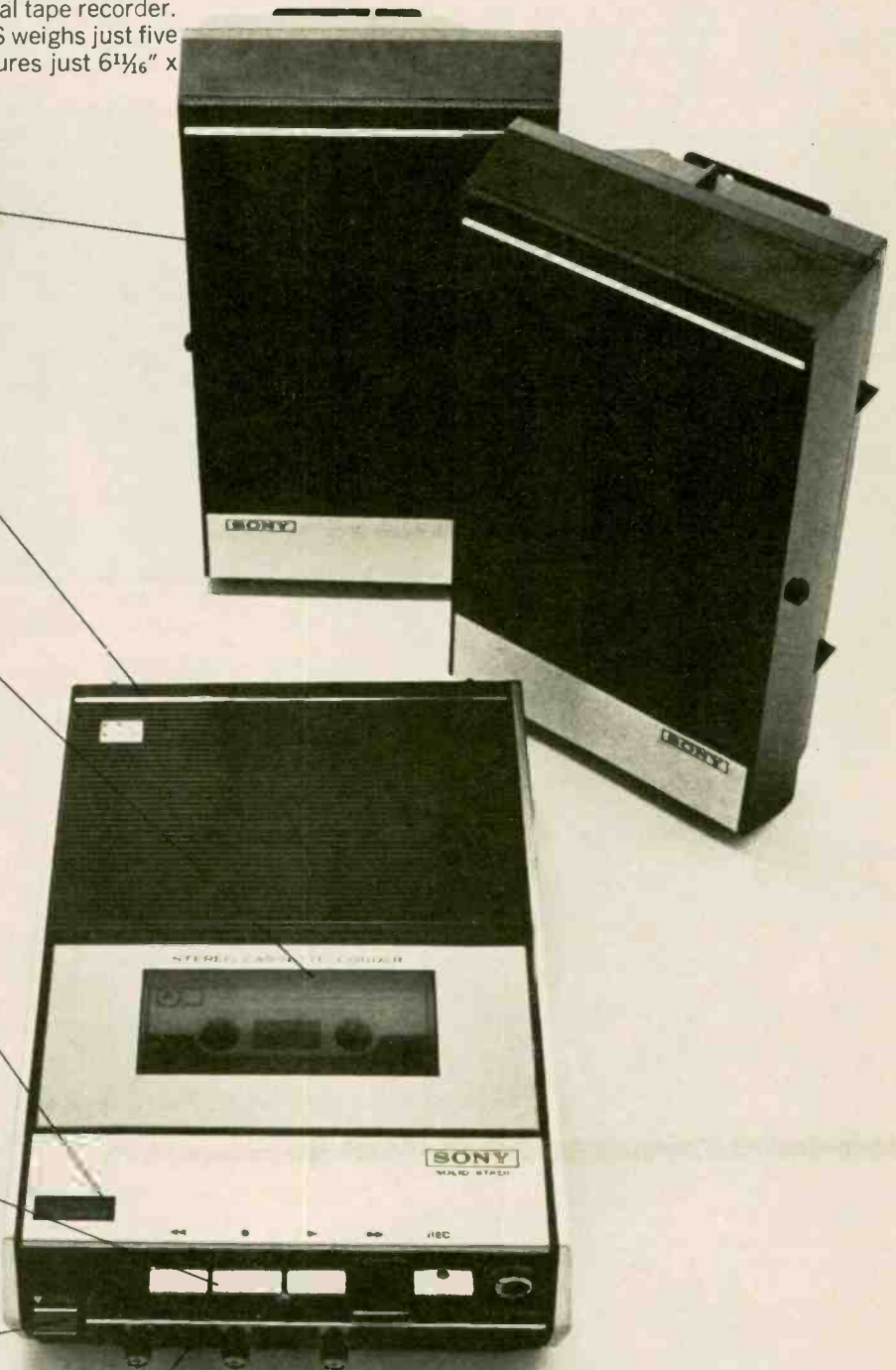
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brought a genuinely important work back into circulation. This is an immensely compelling opus, one of Bloch's strongest. A product of his last years (he died in 1959), it has the mastery and grandeur available only to composers who have achieved real personal and technical maturity. L. T.

**MENOTTI:** *The Medium*. Regina Resnik (mezzo-soprano), Madame Flora; Judith Blegen (soprano), Monica; Emily Derr (soprano), Mrs. Gobineau; Julian Patrick (baritone), Mr. Gobineau; Claudine Carlson (soprano), Mrs. Nolan. Opera Society of Washington, Jorge Mester cond. COLUMBIA MS 7387 \$5.98.

Performance: Good  
Recording: Excellent  
Stereo Quality: Very effective

Within his own operatic world, which is far less limited than his deceptively simple means suggest, Gian Carlo Menotti is a true master. *The Medium* is Grand Guignol in cameo: slender musical ingredients manipulated with formidable skill and an uncanny utilization of the textual and theatrical values. The work must be seen to experience it fully, but my interest never sagged while hearing this recorded production—the atmosphere is captured with remarkable strength, and stereo is used with boldness and imagination to compensate in part for the missing visual element.

The composer himself staged the Washington, D.C., production which preceded this recording and, since the liner notes are also by him, we can assume that the recorded version has his full blessing. Regina Resnik cuts a terrifying figure as the fear-driven Madame Flora, displaying an absolute command of the character that is further strengthened through her exceptionally clear and forceful enunciation. Judith Blegen is affecting as the unhappy Monica, and the three minor characters round out the picture most effectively. Jorge Mester's handling of the tricky score is admirable. The all-purpose chamber orchestra is very well suited to nearly all of the composer's eerie purposes, but there are times when a larger body of strings seems to be called for. G. J.

**MESSIAEN:** *Vingt Regards sur l'Enfant-Jésus*. John Ogden (piano). ARGO ZRG 650/1 two discs \$11.90.

Performance: Idiosyncratically brilliant  
Recording: Superb  
Stereo Quality: Superb

The "theme of God," the "theme of the star and the Cross," and the "theme of chords" that recur in various forms and combinations through this extraordinary two-hour work represent only one aspect of its pervasive naïve symbolism. Programmatic representation here runs riot, and, predictably, bird-song and evocations of primitive Oriental dance figure largely in Messiaen's ostensibly metaphysical but actually picturesque conception of the Nativity. In many of his works, such as the gigantic *Turangalila* Symphony, I find that the sheer sweep of his musical imagination easily outweighs the pretentious platitude of his so-called "thought." But in the *Vingt Regards*, I fear, inspiration is stretched too thin to hide the lack of real substance. The rhythmic tricks with "modes of limited transposition," mined from Messiaen's researches in Indian music, are not in-

teresting enough to prevent the melodic repetitiveness from becoming oppressive; and whereas, in the later *Turangalila*, the beguiling instrumental treatment of the "theme of love" makes its deliberate, blatant vulgarity acceptable and even attractive, it is hard to take in the monochrome medium of the solo piano.

An exception is the nineteenth and, I think, the best of the twenty pieces, "I sleep, but my heart is awake," whose rapt stillness is for once reinforced by a sense of structure that is both strong and subtle. And here John Ogden's uncanny control of touch and ability to wait out Messiaen's seemingly interminable pauses without losing rhythmic poise are marvelously to the point. But though, considered purely as piano-playing, his performance of the faster pieces is vertiginously exciting (aided by one of the finest record-



Herbert Breslin

REGINA RESNIK

*The Medium's title role in capable hands*

ings I have ever heard, with a dynamic range of impeccable solidity from *pppp* to *ffff*, it has to be said that he is often uncharacteristically cavalier in his treatment of Messiaen's detailed metronome markings and dynamic indications. In the sixth and eighth pieces, for example, some of the tempo interrelationships are widely modified.

In England another complete recording by Thomas Rajna has also been released. Since it is on a small label (Saga-Psyche) unrepresented in the U.S., I doubt if it is likely to be issued here, and in any case Rajna's playing would have to be remarkable indeed to rival the beauty of Ogden's sound and the brilliance of his technique. But it would not be at all hard to imagine a performance that reproduced the composer's intentions more faithfully than Ogden's, and that is perhaps even more important in a work as unfamiliar as this one. B. J.

**MOZART:** *Symphonies: No. 35, in D Major* (K. 385, "Haffner"); *No. 36, in C Major* (K. 425, "Linz"); *No. 38, in D Major* (K. 504, "Prague"); *No. 39, in E-flat Major* (K. 543); *No. 40, in G Minor* (K. 550); *No. 41, in C Major* (K. 55, "Jupiter"). Marlboro Festival Orchestra; Casals Festival Orchestra of Puerto Rico, Pablo Casals cond. COLUMBIA D3S 817 three discs \$11.98.

Performance: Virile  
Recording: Fair to good  
Stereo Quality: Good

Whatever else one may say about the individual quirks the 90-year-old-plus Casals brings to his readings of the last six Mozart symphonies, there can be no accusation of any lack of surging, elemental vitality. Nos. 36, 38, and 39 are new releases; the others have previously been issued as single discs. All save No. 36 are done by the Marlboro Festival Orchestra in a bright and spacious acoustic; the "Linz" fares less well in a somewhat cramped ambiance that gives undue prominence to the upper violin register. Casals takes first-movement repeats in Nos. 35 and 39, but he omits them in Nos. 40 and 41. All the performances are recorded in "live" concert, which—taken together with audience noise and distinctive vocal *obbligato* from Casals—provides not only a special aura of spontaneity, but also assurance that these are authentic documentations, not edited tapes.

The "Haffner" comes across with great urgency and virility; the slow movement is taken almost *con moto* rather than at the usual reposeful pace. The first two movements of the "Linz" are a bit over-deliberate for my taste, as are the finale of the "Prague," the slow movement of the G Minor, and the first movement of the "Jupiter." Everything else is brimful of vitality and suspense, reaching a special high point for me in the somber slow introduction of the "Prague" Symphony. The E-flat Symphony is a joy from beginning to end. Except for that of the "Linz" Symphony, the recording as a whole is bright and clean. However, my review pressing of the "Linz" was troubled by much pre- and post-echo, and there was considerable post-echo in the "Prague" as well.

I would not suggest that these are definitive recorded versions of these much-recorded masterpieces, but for its best moments I shall hold and treasure this album for many years to come. For it documents a kind of organically rooted musicianship, the like of which we are not likely to see again in this century. D. H.

**POUSSEUR:** *Trois Chants Sacrés* (see DALLAPICCOLA)

**RACHMANINOFF:** *The Bells*. Yelizaveta Shumskaya (soprano); Mikhail Dovenman (tenor); Aleksei Bolshakov (baritone); RSFSR Russian Chorus; Moscow Philharmonic Orchestra, Kiril Kondrashin cond. MELODIYA/ANGEL 40114 \$5.98.

Performance: Vital and colorful  
Recording: Good  
Stereo Quality: Very good

*The Bells* is said to have been Rachmaninoff's favorite composition. It is a mighty choral symphony inspired by Edgar Allan Poe's famous poem, its four symphonic movements representing the poet's evocations of jingle bells (*Allegro*), wedding bells (*Lento*), alarm bells (*Presto*), and funeral bells (*Lento lugubre*). Rachmaninoff rose to the musical challenge with real imagination and brilliant craft. The work is opulently and clangorously scored, requiring a tenor, soprano, and baritone soloist for the first, second, and fourth movements, respectively. The third movement is given over to the chorus alone, really the central element throughout.

This is an enthusiastic and rousing performance, in which the work of the chorus, orchestra, and English horn soloist (final movement) deserve the highest praise. Best

of the three vocal soloists is the sweet-voiced tenor, and the weakest the wobbly soprano. Passing instances of distortion (and wowing on the final chord) aside, the recording is technically very impressive. *The Bells* is an old-fashioned score for 1913, the date of its composition, harking back to Tzarist pomp and Rimsky-Korsakov. But it achieves its aims brilliantly and I, for one, find it quite irresistible. G. J.

**SCHMITT:** *La Tragédie de Salomé, Op. 50.* **CHAUSSON:** *Viviane, Op. 5.* **DUPARC:** *Lénore.* New Philharmonia Orchestra, Antonio de Almeida cond. RCA LSC 3151 \$5.98.

Performance: Good  
Recording: Excellent  
Stereo Quality: Good

Heard in chronological order—Duparc (1875), Chausson (1882), and Schmitt (1907), respectively—these works offer a fascinating aural view of the influence of post-Wagnerian style on the French orchestral idiom, and, in the Florent Schmitt work, the later influences of Debussy and Richard Strauss. On first hearing, one would guess that Duparc's rather Lisztian *Lénore* was also influenced by *Le Chasseur maudit* by his teacher, César Franck—except that the Franck work was composed seven years later. Chausson, in his *Viviane*, displays by far the most effective command of musical-dramatic rhetoric of the three composers; Florent Schmitt's *Salomé*, save in its rhythmically original final pages, has not worn well over the years (I remember well the composer's own recording from the early Thirties).

Among the younger conductors of the day, Antonio de Almeida is a new name to me, but he plainly knows his business, giving performances on this disc that are both lucid and vital. The same adjectives apply equally to the excellent recorded sound. D. H.

#### RECORDING OF SPECIAL MERIT

**SHOSTAKOVICH:** *Symphony No. 6, Op. 54; The Age of Gold, Ballet Suite, Op. 22a.* Chicago Symphony, Leopold Stokowski cond. RCA LSC 3133 \$5.98.

Performance: Gorgeous  
Recording: Very good  
Stereo Quality: Very good

I never thought I would ever end up pinning a Special Merit badge on a Shostakovich symphony, but more than half of that composer's Sixth—a work previously unknown to me—consists of a long, slow, thoughtful, and quite beautiful first movement gloriously played by Stokowski and the Chicagoans and well worth the price by itself. The second movement is a rare moment of grace, and the Rossinian wrong-note finale, although a little heavy-footed for my taste (it ends up in a sort of Soviet can-can), has wit and humor. For once the bombast, the rhetoric, and the grotesquerie are missing, and something more genuine and believable emerges. *The Age of Gold* suggests "polka," of course, and that giddy bit of slapstick—surely the silliest music ever written—is here along with three other (only slightly less giddy) numbers from the ballet. This kind of humor wears very thin very fast, but Stokowski makes orchestral riches even out of this, and I find it almost bearable.

The recorded sound is good but the disc

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is even thinner than the humor. RCA's new paper-thin wafers obviously save half the cost of the vinyl, but what happens to quality and durability? The floppy consistency of the meager plastic and some of the noises picked up the first or second time it is played do not inspire much confidence.

E. S.

#### RECORDING OF SPECIAL MERIT

**TCHAIKOVSKY: Piano Music.** *Scherzo à la russe, Op. 1, No. 1; Impromptu, in E-flat Major, Op. 1, No. 2; Ruines d'un Château, Op. 2, No. 1; Scherzo, Op. 2, No. 2; Song without Words, Op. 2, No. 3; Valse-Caprice, in D Major, Op. 4; Romanza, in F Minor, Op. 5; Valse-Scherzo, in A Major, Op. 7; Capriccio, in G-flat Major, Op. 8;*

*Rêverie, Op. 9, No. 1; Polka de Salon, Op. 9, No. 2; Mazurka de Salon, Op. 9, No. 3; Nocturne, Op. 10, No. 1; Humoresque, Op. 10, No. 2; Abend-Träumerei, Op. 19, No. 1; Scherzo Humoristique, Op. 19, No. 2; Feuillet d'album, Op. 19, No. 3; Nocturne, Op. 19, No. 4; Capriccioso, Op. 19, No. 5; Theme and Variations, Op. 19, No. 6; Six Pieces on a Single Theme, Op. 21; Sonata, in G Major, Op. 37; 12 Etudes, Op. 40; Dumka, Op. 59.* Michael Ponti (piano). Vox SVBX 5455 three discs \$9.95.

Performance: **Extraordinarily perceptive**

Recording: **Superb**

Stereo Quality: **Splendid**

It's been some time since a pianist has taken me so thoroughly by surprise and afforded so

much delight as Michael Ponti has done with this album. After listening to it, I was eager to know something about this splendid musician (who has also recorded works by Henselt and Moscheles for Vox's Candide label), but the otherwise fine liner notes said not one word about him. Only his name was revealed. It took diligent research to find out anything beyond that, and I'll pass those few facts on to you.

He is, interestingly, an American. I gather that he is at least fairly young, for the most important part of his training, after leaving his childhood home of Washington, D. C., was in Frankfurt, to which city his father (a career officer in the U. S. Government Service) was moved in 1955. There he studied with an assistant to the great Emil Sauer, and attended master classes with Artur Schnabel and Robert Casadesu. He has won most of the important European prizes, and has concertized in Europe and South America. (I doubt that he's appeared in the United States.)

What impresses me above all in Ponti's playing is the extraordinary immediacy with which he responds to the music. He seems to identify naturally with every phrase and stylistic gesture. Under many pianists' fingers, Tchaikovsky's piano music sounds embalmed. Ponti, however, plays it as if he had heard the pieces in Tchaikovsky's own parlor. He treats them with absolute respect and intelligence, and one is astonished to find how much *élan* still resides in this old, oft-abused music. You can *hear* the elegance that was so much a part of the composer's life and personality, and which is obliterated by interpreters who don't know it's there. Somehow, Ponti finds the kernel of freshness in every phrase, and everything comes forth with the sincerity with which it was certainly meant. Technically, too, Ponti seems to have absolutely all one could ask for. A beautiful tone, and lots of it, in absolute control; vividly energetic fingers; a fine foot on the pedals; and a splendid sense of rhythm!

Tchaikovsky may not be *your* composer, as he is not really mine. But I guess that many people will be surprised at both the high quality of this music and at its performance here. Ponti plays as if he were giving a public recital rather than making a recording. He has "presence," and it's not a matter of recording technique. I doubt that there were many re-takes or splicing needed in the production of this album.

L. T.

#### RECORDING OF SPECIAL MERIT

**TELEMANN: Concerto in G Minor, for Viola, Strings, and Continuo; Suite in F Major, for Violin and Orchestra; Suite in E-flat Major, for Strings and Continuo ("La Lyr").** Jaap Schröder (violin); Paul Doktor (viola); Gustav Leonhardt (harpsichord); Concerto Amsterdam, Frans Brüggen cond. TELEFUNKEN SAWT 9541-B EX \$5.95.

Performance: **Excellent**

Recording: **Excellent**

Stereo Quality: **Excellent**

Those familiar with Frans Brüggen's abilities as a conductor (he is, of course, renowned too as one of the foremost recorder virtuosos) from his previous Telefunken recordings of the complete *Tafelmusik* by Telemann will need little persuasion from me to obtain this



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new disc. It is a most beautifully played program, elegantly phrased, impeccable in execution, and stunningly stylish. Even Paul Doktor, the soloist in the often-recorded viola concerto, manages to scale his rich tone down to fit the period, and renders his ornaments correctly and with flair. The repertoire is all first-quality Telemann (the "La Lyra" Suite, incidentally, takes its name from a movement entitled *La Vielle*, the old string "hurdy-gurdy," which Telemann cleverly imitates). The longest work, the F Major Suite, with its fairly extensive violin obbligato, has been recorded before (Archive 198467) in a performance featuring period instruments. That version, conducted by Kurt Redel, with Eduard Melkus as soloist, is rather more aggressive, and, since that album features Telemann's Polish style, is also rhythmically sharper and marginally faster in some movements. Brüggén's interpretation, though less folk-like in spirit, is also not so raw in sound. Both are worthy performances. This disc, beautifully recorded, is an absolute must for any Baroque collection. *I. K.*

### COLLECTIONS

**WILHELM BACKHAUS:** *Memorial.* Bach: *Well-Tempered Clavier: Prelude and Fugue No. 1, in C Major (BWV 846).* Brahms: *Variations on a Theme of Paganini, Op. 35.* Chopin: *Fantaisie-Improvisu in C-sharp Minor, Op. 66.* Schumann: *Fantasia in C Major, Op. 17; Nachtstück in F Major, Op. 23, No. 4.* Wilhelm Backhaus (piano). PARNASSUS \$5.00 (postpaid, from Parnassus, 130 Arnold St., Staten Island, N.Y.).

Performance: **Historic**  
Recording: 1908-1938

Backhaus had an extraordinarily long recording career, beginning in 1908 when he was twenty-four. This splendid memorial disc includes the Chopin *Fantaisie-Improvisu* from that first session, and it is a very idiomatic rendition of Chopin, unlike some of his later efforts in behalf of that composer. What Backhaus was supreme in, however, was Brahms and Schumann, and the works by those composers (like everything else here never reissued after the release of the late-Twenties and Thirties 78-rpm originals) are most splendidly played. Indeed, in the case of the Schumann (the *Nachtstück*, though not very well known, is an absolute gem) and the Brahms *Paganini Variations*, it is doubtful whether anybody since has played them any better. That is quite a statement, but for my own taste it holds true. Backhaus had a bearish way with this kind of music; it was craggy, noble, exciting technically, and full of Romantic thunder, but controlled. Any piano buff with an understanding of the art and its greatest exponents will not want to miss this valuable reissue. *I. K.*

**DAVID BURGE:** *Avant Garde Piano.* Berio: *Sequenza IV.* Dallapiccola: *Qua-derno Musicale di Annalibera.* Stockhausen: *Klavierstück VIII.* Boulez: *Première Sonate.* Křenek: *Sechs Vermessene.* David Burge (piano). CANDIDE CE 31015 \$3.98.

Performance: **The best**  
Recording: **Problems**  
Stereo Quality: **Good**

This is virtually a survey of European keyboard music since World War II by one of the best exponents of new piano music. The

*Boulez enfant terrible* First Sonata is the earliest work on the disc: it is a blockbuster sprung on the unsuspecting world 'way back in 1947. The piece has not lost any of its fearsomeness—it is difficult to play, difficult to listen to, difficult to follow, difficult to everything—and Burge's success with it is perhaps his major triumph on this record. The Dallapiccola, written in 1952, is also a twelve-tone work but is at another extreme in its utter simplicity, purity, directness, even naïveté (in the best sense—it was, after all, written for or at least dedicated to a child). The Stockhausen dates from 1954 and is a rare and trenchant example of concision in that composer's output. The Křenek *Sechs Vermessene* are totally organized right down to the necessary expenditure of muscular

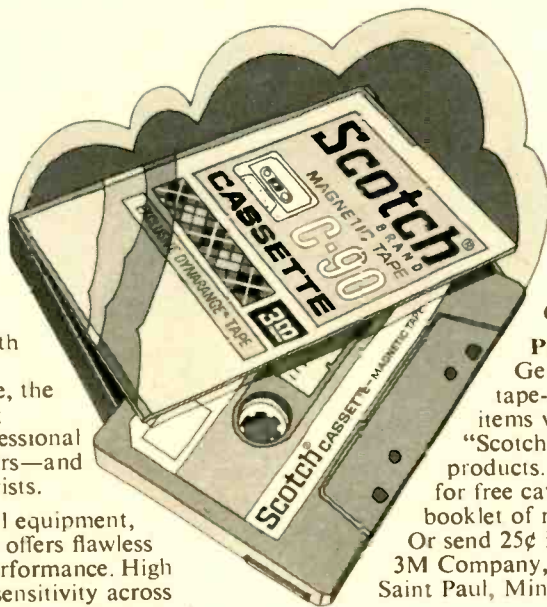
energy; they are a giant bore. The most recent work, the Berio *Sequenza IV*, is strikingly and effectively built out of two opposing but interrelated kinds of piano sound—an excellent example of how a simple and direct idea can be extended into an effective larger work by the most organic means. *E. S.*

### RECORDING OF SPECIAL MERIT

**MONTERRAT CABALLÉ / SHIRLEY VERRETT:** *Great Operatic Duets.* Rossini: *Semiramide: Serbami ognor . . . Alle più calde immagini.* Donizetti: *Anna Bolena: Dio, che mi vedi . . . Sul suo capo aggravati un Dio.* Bellini: *Norma: Mira, o Norma.* Offenbach: *The Tales of Hoffmann: Barcarolle.* Verdi: *Aida: Silenzio! Aida*

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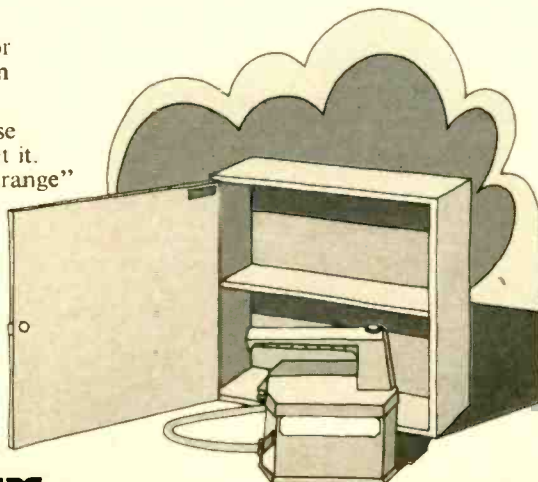
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*verso noi s'avanza*. Puccini: *Madama Butterfly*; Flower Duet. Ponchielli: *La Gioconda*: *L'amo come il fulgor del creato*. Montserrat Caballé (soprano); Shirley Verrett (mezzo-soprano); New Philharmonia Orchestra and Ambrosian Chorus, Anton Guadagno cond. RCA LSC 3153 \$5.98, © R8S 1145 \$6.95.

Performance: **First-rate**  
Recording: **Very good**  
Stereo Quality: **Very good**

Here is an interesting program, and the two gifted artists rise to its manifold challenges brilliantly. Both are excellent musicians, their voices form a lovely blend, they seem to draw inspiration from one another, and the end result brings credit to both. The Rossini-Donizetti-Bellini group ought to delight every *bel canto* fancier. *Semiramide* is an absurd opera, but Rossini's vocal writing has endless invention, and it literally glows given the Caballé-Verrett kind of vocalism. "Mira, o Norma" rivals the Sutherland-Horne interpretation, and, instead of drawing parallels, I feel thankful for our having access to both. The long scene between Anne Boleyn and Jane Seymour is one of the highlights of the Donizetti opera. I don't believe that the Mesdames Caballé and Verrett extract all the dramatic juice from the confrontation of the rivals, but their singing is above reproach. The same is true of the *Aida* and *Gioconda* scenes, in both of which Verrett is more suitably cast than Caballé—but every time I thought this the Spanish soprano would come out with a lovely phrase or beautifully sustained piano tone that numbed criticism. Only the Barcarolle falls below the standard elsewhere exhibited here. The participants seem to have underestimated the challenge in this ultrafamiliar piece: there is some uncertain intonation.

Anton Guadagno provides good but not very vital direction. Producer Richard Mohr's annotations are, as usual, informative; in discussing the unjust neglect of *Anna Bolena*, however, his statement that "the advent of Caballé and Verrett on the musical scene has done much to revive interest in it" is inspired more by company loyalty than by fact. It was Maria Callas and Giulietta Simionato who returned the Donizetti opera to musical currency in La Scala's productions of 1957 and 1958. G. J.

**MIRELLA FRENI: Favorite Arias.** Puccini: *Gianni Schicchi*: *O mio babbino caro*; *Suor Angelica*; *Senza mamma*. Mascagni: *L'Amico Fritz*: *Son pochi fiori*. Bellini: *La Sonnambula*: *Ah! non credea mirarte*; *I Capuleti ed i Montecchi*: *Oh! quante volte*. Bizet: *Carmen*: *Micaela's aria* (in Italian). Verdi: *Falstaff*: *Sul fil d'un soffio etesio*. Mirella Freni (soprano); Bavarian Radio Orchestra, Ino Savini cond. VANGUARD CARDINAL VCS 10068 \$3.98.

Performance: **Beautiful**  
Recording: **Good**  
Stereo Quality: **Fine**

Perhaps I am the wrong person to be reviewing this record, for I find it impossible to be objective about Mirella Freni. I guess it all began when her Mimi in the *Scala Bohème* film brought me to the verge of tears. Since then I have heard Miss Freni in many recordings and "live" performances, and my enthusiasm is unabated. In addition to possessing a beautiful voice, she is a superb actress who manages to create seven very different

characterizations on this disc, originally issued by Eurodisc in Europe during the early Sixties. I really am unable to single out any item on this record for special attention—everything is so beautifully done. My only complaints concern the absence of a chorus in the *Falstaff* aria and the occasionally inaccurate liner notes (Micaela is *not* Don José's sister!). Texts and translations are included. This record has got to be one of the great buys of 1970. Michael Mark

**HISPANIAE MUSICA: Mozarabic Mass; Liturgic Melodies.** Choir of Monks of the Abbey de Santo Domingo de Silos (Burgos, Spain), Dom Ismael Fernández de la Cuesta (OSB) cond. Deutsche Grammophon ARCHIVE 198459 \$5.98.

Performance: **Fervent**  
Recording: **Excellent**  
Stereo Quality: **Superior**

Of the four branches of Western chant—Gregorian (Rome), Ambrosian (Milan),



MIRELLA FRENI  
*A faultless recital disc*

Gallican (France), and Mozarabic (Spain)—some of the oldest examples can be traced to the Spanish liturgy of the sixth and seventh centuries. Properly these belong to the music of the Visigothic Church, but the entire period is generally termed Mozarabic (Christians living under Moorish domination), even though the Arab invasion did not occur until 711. The Mozarabic rite lasted until the eleventh century, when it was suppressed by Popes Alexander II and Gregory VII; only in a very limited way was it allowed to be celebrated after that time, principally in Toledo.

There was an attempt around 1500 to transcribe the ancient liturgies, but deciphering the old notation proved to be a big stumbling block. Most of the melodies that have come down to us today, reconstructed from copies of manuscripts of the sixth and seventh centuries and even earlier, are the result of a good deal of guesswork. Nor can one say with certitude that what we hear is entirely devoid of non-Mozarabic influences of a later date, especially Gregorian. That would, as well, include the manner of performance, which in the present case is strongly based on the Solesmes style. These problems, of course, cannot be solved very easily. Yet this collection, which includes a large portion of the Mass in correct sequence, as

well as additional chants, is an extremely important one. There is woefully little of this music on discs; one principal example is a *Pater Noster* (also included here), a chant that conceivably might date back to the fourth century, available in the RCA Victor History of Music in Recorded Sound series (Vol. II).

The present selection is an excellent one, and it is very beautifully rendered, even exciting at times; most of it doesn't sound particularly Spanish or even Arabian, but there is a great deal of fervor to the singing. The recording, furthermore, is highly atmospheric and very well gauged for stereo, and complete texts and translations are provided. One might hope that research into this murky area will continue, and that further investigations will also produce some answers about the manner in which these chants might have been sung originally. I. K.

**MODERN MADRIGAL SINGERS: Recital.** Poulenc: *Sept Chansons*. Milhaud: *Naissance de Venus*. Debussy: *Trois Chansons*. Ravel: *Trois Chansons*. Modern Madrigal Singers. DESTO DC 6483 \$5.98.

Performance: **Good**  
Recording: **Good but echo-y**  
Stereo Quality: **Lots of separation**

This record is particularly valuable for its repertoire. The Poulenc is attractive, the Debussy striking, and the Ravel one of that composer's most extraordinary works. The Milhaud is not very good, but never mind; the rest is rare and eminently worthwhile. Language is a bit of a problem; the singers are somewhat uneven in their pronunciation and no French texts are provided, only free English translations. Two more cavils: a very artificial-sounding reverb and some curious and unpleasant greebles in the pressing (from time to time and nearly all right-channel). Otherwise these are good lively performances, and, even with the background echo, the recording is basically clear and communicative. E. S.

**ANNELIESE ROTHENBERGER: Recital** (see FLOW)

#### RECORDING OF SPECIAL MERIT

**SACRED SONGS AND INSTRUMENTAL MUSIC OF LUTHER'S TIME.** Alder: *Da Jakob nu das Kleid ansach*. Hofhaimer: *Cavmen*. Anonymous: *Pro oemium*; *Gelassen had eyn suster gen*; *Urbs beata—In dedicatione*; *Mit got so wöln wirs heben an*; *O Jesu Christ*. Hellinck: *Capitan hervgot*. Isaac: *Carmen in F*; *Carmen in G*; *Suesser Vatter*. Kungsberger: *Urbs beata*. Schlick: *Maria zart* (organ and vocal versions). Von Bruck: *Aus tiefer Not*. Kotter: *Aus tiefer Not*. Senfl: *Christ ist erstanden*; *O du armer Judas*; *Da Jesus an dem Kreuze hing*. Early Music Quartet, Munich (Andrea von Ramm, mezzo-soprano, krumhorn, and organetto; Willard Cobb, tenor and krumhorn; Sterling Jones, krumhorn and viola da gamba; Thomas Binkley, lute, krumhorn, organette, cort-holt); Grayston Burgess (countertenor); Nigel Rogers and Kurth Rieth (tenors); Karl-Heinz Klein (baritone); Don Smithers (cornetto); Johannes Fink (viola da gamba); Franz Eder (trombone); Victor Lucas (organ). TELEFUNKEN SAWT 9532-B EX \$5.95.

Performance: First-class  
 Recording: Superior  
 Stereo Quality: Ideal

Here's another valuable collection by the Early Music Quartet (*Studio der frühen Musik* is their German name), devoted this time to greater and lesser figures in Germany at the time of the early Reformation. Much use is made of contrast: Luther's famous hymn *Aus tiefer Not* (this is Luther's only representation in the program), is heard in two versions, a vocal setting by Arnold von Bruck and an organ arrangement by Hans Kotter. Another example is in the two similar settings of Arnolt Schlick's *Maria zart*, familiar from a number of other Renaissance collections. Much of the music reflects Luther's influence in catering to the "common man," but not all of the selections show the popular approach. The disc's longest work is a highly interesting polyphonic setting of the "Seven Last Words" by Ludwig Senfl (*Da Jesus an dem Kreuze hing*), which makes an excellent contrast to such a piece as the almost naïve-sounding *Gelassen had eyn sustergen* ("A little nun made her peace and she went into her little cell. Jesus came to her and wanted to have communion with her"). Finally, interspersed among the vocal items are various instrumentals, such as the polyphonic pieces called *Carmen*, which help to add variety to the program. With the exception of some rather dully played organ selections, the collection is splendidly performed, and the recorded sound is exceptional. Texts and translations are provided. I. K.

**JOSEPH SCHMIDT: Recital.** Adam: *Le Postillon de Longjumeau: Freude, vernehmet die Geschichte.* Flotow: *Martha: Ach, so fromm.* Meyerbeer: *L'Africaine: Land so wunderbar.* Donizetti: *L'Elisir d'amore: Una furtiva lagrima.* Verdi: *Rigoletto: La donna è mobile. Il Trovatore: Di quella pira.* Puccini: *Turandot: Non piangere, Liù; Nessun dorma.* May: *Heut' ist der schönste Tag; Ein Lied geht die Welt; Wenn du jung bist.* Tauber: *Du bist die Welt für mich.* Three other songs. Joseph Schmidt (tenor). Orchestral accompaniments. SERAPHIM 60120 \$2.49.

Performance: Exceptional  
 Recording: Dated (1933-1936)

This is a representative collection of Joseph Schmidt's memorable art in opera and song. As always, the beautiful vocal quality and engaging spirit assure a high level of enjoyment, even though certain operatic renditions are not delivered with the refinement the singer was able to impart to his choicest recordings. Certainly the *Martha* air leaves nothing to be desired, and only the enunciation can be faulted in the two *Turandot* arias. The "Di quella pira" is stirring, and "La donna è mobile" is tossed off with a debonair elegance. The German-language "O paradiso" is a trifle unsteady and, though Schmidt's high C-sharp is triumphant in the *Postillon* air, the low notes are a little troublesome. The songs are all associated with Schmidt's great movie successes, and they are irresistibly delivered, each in its appropriate style. Richard Tauber conducts the orchestra in the selection from Tauber's own operetta, *Der singende Traum*. Obviously, the rewards of this low-price disc are many. The sound is adequate, and sometimes even a little better. G. J.

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# ENTERTAINMENT

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Reviewed by NOEL COPPAGE • DON HECKMAN • PAUL KRESH • REX REED • PETER REILLY

**CHARLES AZNAVOUR:** *The Aznavour Way*. Charles Aznavour (vocals); orchestra. *Desormais; La Lumière; Au nom de la jeunesse*; and seven others. MONUMENT SLP 18135 \$4.98.

Performance: For fans  
Recording: Good  
Stereo Quality: Good

Things are looking up. Still no translations of the songs that Aznavour sings here but, as the liner notes say, "literal translations of the titles." It must be a great help for the non-French listener to know that *La Lumière* translates as "Light" and that *Marie l'Orpheline* is just plain "Orphan Girl Marie." No translation is offered for *L'Amour* so I guess you just have to figure out that it doesn't refer to Dorothy.

It is the same old Aznavour here, and if you like him you will like the album. Like Sinatra he just keeps on recording and selling all over the world. There is no question but that he is a fine entertainer, yet I'm beginning to find him a bit heavy and boring. His world-weariness is taking on the aspect of tired blood rather than romantic disenchantment. In the main, an album for the Geritol set. P. R.

**THE BEATLES:** (see Paul McCartney, page 94, and Ringo Starr, page 95)

**HARRY BELAFONTE:** *Belafonte by Request*. Harry Belafonte (vocals); orchestra, William Eaton arr. and cond. *Mr. Bojangles; Oh Linda; Missouri Birds; Big City Living; Abraham, Martin, and John; You'll Still Be Needing Me After I'm Gone; Marianne; Scarborough Fair Canticle; Put Your Tears Away; I've Got a Secret*. RCA LSP 4301 \$4.98.

Performance: So what else is new?  
Recording: Okay  
Stereo Quality: Okay

There must be an audience for this slickly and sweetly produced collection of nostalgia and *passé* folklore fluff. The rhythms here are what I call "twitchy tropicana," about as authentically Caribbean as a horrid big night on the town at the San Juan Hilton. The lyrics tell the same old story of farewells,

ships, rings, and morning tides. It's as though time never happened for (or to) Harry Belafonte. His shirts are still early Errol Flynn, his face is still grinning and boyishly handsome, and his voice is full and sweet like overripe melon. In this world of volatile, violent, blood-curdling headlines, I'm afraid Belafonte's stayed too long at the fair. R. R.

**SERGIO FRANCHI:** *Within Me*. Sergio Franchi (vocals); orchestra. *Granada; To Love and Be Loved; Within Me; This Is My*

Don Paulsen



ISAAC HAYES  
Funky, warm and sexy

*Life; Everybody Knows*; and seven others. UNITED ARTISTS UAS 6727 \$4.98, (B) U 8176 \$6.98, (C) K 0176 \$6.98.

Performance: Dat's-a nice!  
Recording: Excellent  
Stereo Quality: Good

There is something of the professional Italian in Sergio Franchi's work. He has a nice, rather wooden voice and style, smeared over with those "I-kees-your-hand-Madame" mannerisms that probably come over a lot better in clubs than they do on recordings. One can quite imagine all the palpitating bosoms at ringside when he sings something such as *Lisa Love Me Now* or *To Love and Be Loved* in person. On records, both these songs sound headwaiterish. He also sings *Stay*, which is the theme song of his first film, *The Secret of Santa Vittoria*. It was written by that *echt* Italian team of N. Gimbel and E. Gold. for the Stanley Kramer production, and it is about as authentically Neapolitan as a meal

at Mama Leone's. For years RCA tried to make a recording star out of Franchi, but he seems to have caught on only in clubs and, peripherally, on television. This is his first album for UA, and I was a bit disappointed to see that there was no new song listed to mark the event—which means that Franchi must be pretty sure he's got a future on records. Just to be on the safe side, though, maybe he ought to check up on Enzo Stuarti's residuals for peddling that spaghetti sauce on television. Man, dat's-a really nice. P. R.

**FRANÇOISE HARDY:** *Alone*. Françoise Hardy (vocals); orchestra. *Song of Winter; Magic Horse; Strange Shadows; All Because of You; Suzanne; Sunshine*; and six others. REPRISE 6397 \$4.98.

Performance: Good  
Recording: Excellent  
Stereo Quality: Excellent

To me there is something so attractive about Françoise Hardy that I find it hard to separate the *persona* from the vocal performance. It would be like my trying to judge how good an actress Catherine Deneuve is. In this outing, Mlle. Hardy tackles several songs in English, such as *Strange Shadows, Sunshine*, and Leonard Cohen's *Suzanne*. Even if she were singing in Urdu I think I would enjoy her. *Suzanne*, I can safely state, is an excellent job—moody, transparent, and tender. The French group is well handled, particularly *L'Heure bleue*, which is unaccountably translated as *Midnight Blues*. Hardy is an interesting singer. She has style, musicianship, and a certain Gallic pithiness in her handling of lyrics. I don't think she will ever really break through onto the American market in any big way, since the "oo-la-la" approach is still what Americans seem to ask for from French female singers. So give *them* the "oo-la-la." I'll take Hardy. P. R.

## RECORDING OF SPECIAL MERIT

**ISAAC HAYES:** *The Isaac Hayes Movement*. Isaac Hayes (vocals); orchestra, Isaac Hayes and Dale Warren arr. *I Stand Accused; One Big Unhappy Family; I Just Don't Know What to Do With Myself; Something*. ENTERPRISE ENS 1010 \$4.98, (R) X 1010 (3/4) \$5.95, (4) X4 1010 \$5.95.

Performance: Hypnotic  
Recording: Good  
Stereo Quality: Very good

"Tinkle, tinkle," goes the piano. "Twang, twang," says the guitar. "Uhm, uhm," sings the husky, half-dozing voice. Here we go again: the self-indulgent talkathon that is the trademark of the hypnotic, magical Isaac

### Explanation of symbols:

- (R) = reel-to-reel tape
- (4) = four-track cartridge
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Hayes begins once more. This new album has only four cuts on it, each running from six to twelve minutes. If Isaac Hayes talks to the women in his life the way he talks to his audience through music, the poor things must be half-crazed with longing before he finally socks it to them. But when he socks, you stay socked for a long time. He does it with the deepest, warmest, sexiest voice ever to bend into a microphone. His fingers linger over the organ chords with a finesse that makes one's flesh crawl pleasantly. And he knows how to structure a composition so that it builds suspensefully to an exciting, soulful climax, teasing the lyrics along until the song is just short of collapsing from total frustration.

Isaac Hayes just keeps making bigger circles. His circles encompass a choral group funky enough to rival the Ikettes. Funky, too, is his reaching for those incredible falsetto notes that alternate with deep calico-cat purrs. Side two of "Movement" is better than side one. But that's Hayes' way. I once heard him at Fillmore East and he did the same thing to the live audience that he does on this record—he teases them into submission, opening with mundane material and saving the best for last. He teased thousands of rough-necks until I thought they'd storm the stage on the high tension created by his holding back. Fortunately, Hayes always delivers, always aware of the right moment to strike. Listen, particularly, to the wonderful new Beatles hit, *Something*. Lena Horne's version is feline, Tony Bennett's silky, Joe Cocker's insanely wild. But Isaac Hayes sings it the longest and with the most inward emotion: twelve minutes of total bliss. R. R.

**LENA HORNE AND GABOR SZABO:** *Lena & Gabor*. Lena Horne (vocals); Gabor Szabo (guitar); Richard Tree (organ); Grady Tate (drums); Chuck Rainey (electric bass); Eric Gayle and Cornell Dupree (guitars). *Rocky Racoon; Something; Everybody's Talkin'; In My Life; Yesterday When I Was Young; Watch What Happens; My Mood Is You; Message to Michael; Nightwind; The Fool on the Hill*. SKYE SK 15 \$5.98, Ⓜ M 815 \$6.95.

Performance: **A mixed bag**  
Recording: **Good**  
Stereo Quality: **Good**

Tough, titillating Lena is back and the silently sweet guitarist Gabor Szabo has her in his clutches and won't let go. Lena of late has become too café-cliché, but on this disc arranger Gary McFarland has lit her fire and she is simmering. I don't know what a *Rocky Racoon* is and hearing the number ten times in a row didn't clear things up, so I'd advise you to forget that these two talented musicians chose something so silly for the opening song. But when Lena leans on the Beatles' great hit, *Something*, things begin to happen. She grins her way through Fred Neal's *Everybody's Talkin'*, accompanied by Richard Tree's free-wheeling roadhouse organ, immensely funky and amusing. Gabor Szabo's guitar is kicky.

The rest of the album is foolproof. It's a little passé to sing Michel Legrand's *Watch What Happens* and Bacharach's *Message to Michael* at this late date. (Even so corny and unsalvageable a singer as Jane Morgan recorded these tunes over a year ago.) Still, Lena Horne is so immensely appealing that even tunes for the discard pile emerge safe

and sunny. There's an abundance of Lena's special animal grunts here, too—reminding me that once upon my youth she was the sex symbol of the music world. In the words of George Harrison, something in the way she sings, something in the way she moves me, makes me not want to leave her now. Or ever. R. R.

**JETHRO TULL:** *Benefit* (see Best of the Month, page 74)

#### RECORDING OF SPECIAL MERIT

**GORDON LIGHTFOOT:** *Sit Down Young Stranger*. Gordon Lightfoot (vocals, guitar); Red Shea (guitar); Rick Haynes (bass). *Minstrel of the Dawn; Me and Bobby McGee; Approaching Lavender; Saturday Clothes; Cobwebs & Dust; Poor Little Alli-*



GORDON LIGHTFOOT  
*An easygoing vagabond*

*son; Sit Down Young Stranger; If You Could Read My Mind; Baby It's All Right; Your Love's Return; The Pony Man*. REPRISE 6392 \$4.98, Ⓜ B 6392 (33/4) \$6.95.

Performance: **As soft as the heart of Lightfoot**  
Recording: **Excellent**  
Stereo Quality: **Good**

Gordon Lightfoot's latest album is as easygoing as a vagabond asking for no more than a match to light his hand-rolled cigarette. Gordon smiles his thanks with his every phrase and, in the end, it is I who am grateful for the privilege of listening. "Freedom," he sings, is "just another word for nothing left to lose." What profundity is hidden in that Lightfoot-written phrase. How it sums up youth's drop-out attitude. But Lightfoot always offers hope and poetry. And when a man spills poetry from his soul, how can you deny his worth?

Poetry reigns supreme in another of his songs, *Approaching Lavender*: "If you'd like to try your hand at understanding lavender, then you must be very sure that life is not a game," he sings, while Randy Newman's strings spin off into a world of Randy's own making, a world intricate in its melodies and harmonies. Newman is not the only guest artist on this album. On *Saturday's Clothes*, who else but John Sebastian is playing the

auto-harp, and on *Cobwebs & Dust*, we find Van Dyke Parks on harmonium and Ry Cooder on the mandolin. So, with a little help from his formidable friends, Gordon Lightfoot has once more made a gem of an album. It is a thing of beauty to play and re-play until you know it by heart. R. R.

**PAUL McCARTNEY:** *McCartney*. Paul McCartney (vocals and instrumentals); vocal assistance from Linda McCartney. *Every Night; Maybe I'm Amazed; Junk; Teddy Boy*; and six others. APPLE STAO 3363 \$4.98, Ⓜ 8XT 3363 \$6.98, Ⓜ 4XT 3363 \$6.98.

Performance: **Home movies**  
Recording: **Very good**  
Stereo Quality: **Very good**

What was it that made the Beatles so special? Why was their meteoric flight across the pop horizon so much more spectacular than that of other, perhaps equally gifted, rock groups? The answers, at this point, are elusive, but their apparent demise as an active performing and recording ensemble undoubtedly will stimulate more and more analyses of the group's remarkable career.

One aspect, at least, should not be overlooked. The Beatles, with their all-for-one-and-one-for-all loyalty and almost symbiotic musical and personal inter-relationships, represented a viable social model for young people. In the early Sixties, youth had not yet come to see itself as a full-fledged subculture, and was striving mightily to find social units that could provide the love, sympathy, understanding, and common outlook that seemed to be absent in the traditional family structure. The Beatles, four obviously disparate and sometimes antagonistic individuals, showed that allegiance to a kind of group "good" did not require a sacrifice of creative individuality; on the contrary, it could enhance it.

But the very intimacy of the Beatles as a social and professional unit may have provided a seedbed for the growth of the acrimonious feelings that have accompanied their break-up. That Paul McCartney should have chosen to produce a solo recording quietly, without fanfare, for which he has written all the material, played all the instruments, and sung all the songs (with the exception of a few harmony lines by his wife Linda), that a self-interview originally intended for release with the album—but deleted in the American edition—should include pointedly hostile remarks by McCartney about his fellow Beatles, indicates the tangled morass of feelings buried beneath the group's confident superficial demeanor. "McCartney", in fact, is reminiscent of a previous effort by the entire group to go it alone—the unsuccessful television film *Magical Mystery Tour*. In both cases a kind of home-movies aesthetic prevails—like too many nephews and nieces parading their amateur skills before the camera (or microphone). McCartney, obviously, is no amateur, but most of the songs he has chosen to include here are little more than fragments of music still on their way toward completion. The five instrumental tracks, for example, sound like last-minute improvisations, marred by McCartney's cumbersome drum playing (and surprisingly out-of-tune bass work) and relying upon colorless, often blues-based, chord patterns. The exception is *Junk*, a sweetly *fin de siècle* melody that McCartney does twice, as a vocal

on side one, and as an instrumental on side two.

Shadows of recent Beatles' recordings touch many of the other songs. *Teddy Boy*, filled with "aaahhh, aaahhh"s, comes closest to the McCartney of *Maxwell's Silver Hammer*, and the chunky guitar strumming, simple chords, and hoarse vocal of *Maybe I'm Amazed* are immediately reminiscent of *Let It Be*. Similarly, an important line in *Every Night* is almost identical to the opening melody of *You Never Give Me Your Money* from "Abbey Road."

The album, in sum, is too incomplete, too hurried, too doggedly self-centered, to serve as a real indication of what McCartney can do. His gifts are too plentiful for him to produce a really *bad* album, but I suspect that he will have to free himself of the tangle of emotions accompanying the Beatles' recent difficulties before he can truly take wing on his own. D. H.

#### RECORDING OF SPECIAL MERIT

**JOHN SEBASTIAN:** *John B. Sebastian.* John Sebastian (vocals and instrumentals); various accompanying musicians. *I Had a Dream; She's a Lady; Baby, Don't Ya Get Crazy; How Have You Been; Fa-Fa-Fa; Red-Eye Express;* and five others. MGM SE 4654 \$4.98, ® B 6379 (3¾) \$6.95, ® 8RM 6379 \$6.95, © CRX 6379 \$5.95.

Performance: Pop music at its best  
Recording: Very good  
Stereo Quality: Good

Just in case you're confused: yes, this Sebastian recording has also been released by Warner Brothers. Same name, same tunes, same versions of the same tunes, and apparently the cause of some sort of heavy lawsuit, which doesn't have to concern us except that you shouldn't make the mistake of buying the same record twice.

Actually, now that I think about it, it might be worth it to buy this one twice, if only to keep one in reserve, because it's so bloody good that you will almost certainly wear out the first one pretty quickly. Sebastian flips me—always has, since his days as energy source for the Lovin' Spoonful. He has become that rarity in pop music, a performer whose technical skills are beyond question, who lets you stop worrying about whether or not he's going to make the next chord change, or sing in tune, or keep the beat. Sebastian may not be a *master* technician, but he knows how to play his instrument, and he knows what he can do with his voice.

And when he gets around to writing songs, Sebastian *is* a master, one of the very best we have in today's pop music. Examples? Try his tale of the late-night cross-country flight familiar to all performers, and accurately named the *Red-Eye Express*; or his lovely, bossa-nova-ish tribute to an old acquaintance, *She's a Lady* ("... and I chanced to meet her in my scufflin' days."); or the kids' songs, *How Have You Been* and *You're a Big Boy Now*; or the impressionistic *Magical Connection*. There are more, all laced with the heady Sebastian magic, and all to be heard and savored. He's a real one, John Sebastian, and hearing his music will make your life a little bit richer. D. H.

**RINGO STARR:** *Sentimental Journey.* Ringo Starr (vocals); various accompani-

ments. *Sentimental Journey; Blue, Turning Grey Over You; Night and Day; Stardust;* and eight others. APPLE STAO 3365 \$4.98, ® 8XW 3365 \$6.98, © 4XW 3365 \$6.98.

Performance: Ringo plays Perry Como  
Recording: Very good  
Stereo Quality: Very good

Never quite a full-fledged creative member of the Beatles, drummer Ringo Starr developed over the years an almost Chaplinesque acceptance of his role as the group's comic relief. Beating beneath the disguise, however, as with so many reluctant clowns, was the heart of a determined romantic. For his first solo recording, Starr has dredged up an almost unbelievably hoary collection of pop-music chestnuts. Would you believe *Sentimental Journey* (sung "Sent-ee-mental" by Ringo). *Blue, Turning Grey Over You, Night and Day, Stardust*, and, yes, eight others of the same ilk? Curious. But not so curious as the arrangements, which cover everything from Chico O'Farrill's pseudo-Basic on *Night and Day* to the Hollywood Bowl rock of Elmer Bernstein's *Have I Told You Lately that I Love You?*

The explanation for all this lies deep in Ringo Starr's curious head. The first inclination is simply to view it as a not particularly humorous example of middle-period Beatles camp. But the Beatles' middle period is long past, and this stuff wouldn't be particularly funny under any circumstances. So, obviously, Ringo must be serious. How fantastic to think that *this* is what was going through his mind while he was sitting back there at the drums pounding out *All You Need Is Love*. Maybe

the Beatles were even *more* special than we realized. D. H.

#### RECORDING OF SPECIAL MERIT

**JAMES TAYLOR:** *Sweet Baby James.* James Taylor (vocals and instrumentals); various accompanying musicians. *Sweet Baby James; Lo and Behold; Sunny Skies; Steamroller; Country Road; Oh Susannah;* and six others. WARNER BROS. 1843 \$4.98, ® B 1843 (3¾) \$6.95, ® 8WM 1843 \$6.95, © CWX 1843 \$6.95.

Performance: New young superstar  
Recording: Very good  
Stereo Quality: Good

Pop stars come and go so fast that it sometimes is hard to recall what it is (or was) that makes one more special than another. One thing *is* sure: when a genuine superstar comes down the pike he stands out like a Ferrari in a parade of Fords. Well, keep your eyes peeled, because James Taylor's gathering momentum. I find it difficult to say exactly why I expect him to be one of the Seventies' first new headliners, and maybe that's just as well, since the qualities that distinguish an effective artist from one who goes through the motions but lacks the heart are probably best left in the realm of magical mysteries. Suffice it to say that Taylor has the kind of personal magnetism that dominates a stage with virtually no noticeable effort on his part.

After making an unsuccessful first disc, this young songwriter-guitarist seems to be hitting his stride. His voice is instantly



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recognizable, an eagle's cry in the mechanical wilderness of so much contemporary rock music. And the songs are buoyed along on the clean cool air of originality—a touch of the blues, a trace of country music, even bits and snatches of jazz. They're all good and all worth hearing, even Taylor's dressing up of Stephen Foster's bouncy lady friend *Susan-nah*. Only on his occasional attempt to stimulate a black-blues style does Taylor get in beyond his depth.

Oh, and by the way, if you were one of the few who tried Taylor's Apple recording, do not be deterred; the production, the tunes, and the ambiance were all wrong. Now they're right, and the *Baby James Steam-roller* (to steal a couple of his tune titles) begins to look unstoppable. Hear him now.

D. H.

**IKE & TINA TURNER:** *Come Together* (see Best of the Month, page 73)

**PORTER WAGONER AND DOLLY PARTON:** *Porter Wayne and Dolly Rebecca*. Porter Wagoner and Dolly Parton (vocals); unidentified accompaniment. *Tomorrow is Forever*; *Just Someone I Used to Know*; *We Can't Let This Happen to Us*; *Silver Sandals*; *No Love Left*; *It Might as Well Be Me*; *Forty Miles from Poplar Bluff*; *Each Season Changes You*; *I'm Wasting Your Time and You're Wasting Mine*; and two others. RCA LSP 4305 \$4.98, © P8S 1550 \$6.95, © PK 1550 \$6.95.

Performance: Tolerable  
Recording: Fair  
Stereo Quality: Good

It's follow the leader time again, gang. Remember how Nilsson used that old faded photograph of himself as a boy on the jacket of "Harry"? Remember the use of similar effects in *Butch Cassidy*? RCA has allowed this album to be titled "Porter Wayne and Dolly Rebecca" and put old faded photos of Porter Wagoner and Dolly Parton on the front of the jacket. On the back, there's a photo of Porter Wayne and Dolly Rebecca as grown people, in what one presumes to be their "dynamic duo" costumes, for they are called the "dynamic duo of country music" on that side of the jacket. All of which must be RCA's way (or the way of the producer, Bob Ferguson) of saying it thinks the audience for this disc has caught up to the pop culture of 1967 or so.

That's unfortunate, because the sounds being peddled are fairly good, staple country sounds, low in saturated fad content. Porter Wagoner is not much of a soloist, and neither is Dolly Parton, but their voices go together nicely on some songs—*Forty Miles from Poplar Bluff*, for example, or *Each Season Changes You*. Wagoner's unschooled but steady baritone (he's sometimes even on key) complements Dolly's unintentionally campy vibrato. It's a so-so recording, all in all, the good songs being offset by such bombs as *Run That by Me One More Time*. RCA's Dynagroove process gives the whole thing an unreal sound, as it sometimes does. Wagoner's voice is too closely miked, I think, and the bass is recorded so as to make any equipment sound like a juke box. That's what you get when you let engineers go to honky tonks, I guess. Give the performers—oh, a B minus, but give those in charge of packaging and production no higher than a D plus.

N. C.



## THEATER • FILMS

**ZABRISKIE POINT.** Original-soundtrack recording. *Heart Beat*, *Pig Meat* (The Pink Floyd); *Brother Mary* (The Kaleidoscope); *Excerpt from "Dark Star"* (The Grateful Dead); *Crumbling Land* (The Pink Floyd); *Tennessee Waltz* (Patti Page); *Sugar Babe* (The Youngbloods); *Love Scene* (Jerry Garcia of the Grateful Dead); *I Wish I Was a Single Girl Again* (Roscoe Holcomb); *Mick-ey's Tune* (The Kaleidoscope); *Dance of Death* (John Fahey); and *Come in, Number 51, Your Time Is Up* (The Pink Floyd). Don Hall, music coordinator. MGM SE 4668 ST \$5.98.

Performance: Apt  
Recording: Excellent  
Stereo Quality: Expert

"I am willing to die," says the young hero of *Zabriskie Point*, "but not to be bored to death." The gods turn this *hubris* against him when he shoots a cop on a California campus and flees to Death Valley in a stolen plane. The plane sees a car below in the desert and falls in love with it, and the next thing you know the occupants of both vehicles are rolling about in the Death Valley dust. It all leads to death and not boredom—except, perhaps, for the audience, which suffers through some of the most static episodes ever filmed. Michelangelo Antonioni has not succeeded in turning his study of violence and vulgarity in America into the myth he made of *Blow-up*, but he certainly employed music marvelously in the attempt by inviting a number of mod groups to do their things for the soundtrack.

In the movie, the music is played at a strikingly low level, and provides a stream of ironical commentary on the action—with the action, or inaction, commenting wryly, in turn, on the music. All this is missing, of course, when you just hear the track, but it still adds up to an unusually fine concert. The experiments of the Pink Floyd with subliminal voices, magnified heartbeats, and eerie whispers, the twang of Patti Page in the *Tennessee Waltz*, folksinger Roscoe Holcomb nasally intoning *I Wish I Was a Single Girl Again*, and the curiously gentle ruminations of the Youngbloods, the Kaleidoscope, and the Grateful Dead create a haunting, hungering tracery of sound as wistful as it is immediate. Two passages—a prolonged serenade on Jerry Garcia's guitar for the dusty love scene, and the dry, dry sound of John Fahey's guitar in the *Dance of Death*—are particularly evocative.

MGM evidently had a hard time getting all the rights they needed from other record companies to put this disc together—acknowledgments are made to the "courtesy" of Takoma Records, Warner Bros., Folkways, Epic, Mercury, Harvest, and RCA—but a little courtesy from London Records also would have helped. Without it, the Rolling Stones had to be left out.

P. K.

STEREO REVIEW

# FOLK



**HUNGARIAN SONGS OF FIVE CENTURIES** (Four sixteenth-century songs based on poems by Balassi and Tinódi; Three "Kuruc" songs in settings by Ferenc Farkas; Six love songs; Four nineteenth-century "composed" folk songs; Six folk settings by Zoltán Kodály, László Lajtha and Sándor Szokolay). Ferenc Béres (tenor); folk orchestra and instrumental accompaniments. QUALITON S LPX 1292 \$5.98.

Performance: **Tasteful and pleasant**  
Recording: **Very good**  
Stereo Quality: **Subdued**

Five centuries of Hungarian song are surveyed here on a single disc containing nearly one hour of music. I don't know how much demand there is for such an enterprise, even among Hungarians, but the scholarship is impressive and the musical execution is of a high order. The early songs are historical, with references to the sixteenth and seventeenth-century Turkish domination and to the prolonged fights for freedom against the Habsburgs in the seventeenth and eighteenth centuries—a politically tragic period, but one that produced a great deal of haunting and durable music. Most of these songs reach us in settings by authoritative twentieth-century researchers, among which the ingeniously arranged group by Sándor Szokolay (for solo voice and punctuating cimbalom, whose function is not unlike the blues trumpeter doing "fills") is the most appealing. There is also a group of songs long associated with gypsy bands. These are performed by just such a band here, bereft of the currently unfashionable "gypsy" connotation, and with the traditional gypsy ornamentations held to a minimum.

Béres' voice is limited in range and volume, but its timbre is appealing, and he is obviously a specialist who sings tastefully and with a cultivated style. Though the general appeal of such a release is questionable, it will please the specialist listener.

George Jellinek

**MASTER MUSICIANS OF JAVA:** *The Jasmine Isle.* Javanese instrumentals recorded by Suryabrata and David Lewiston. *Pangkur* (gender solo); *Tjatrik* (gamelan); *Tjatrik II* (gambang solo); *Bendrong* (gamelan); *Sembung gilang* (gamelan); *Senggol* (gamelan); *Bendrong II* (gambang solo); *Sigromongsab* (gamelan); *Kebo giro* (gamelan); *Liung* (gamelan). NONESUCH H 72031 \$2.98.

Performance: **Serene**  
Recording: **Fair field job**  
Stereo Quality: **Good**

On Java, the most populous of Indonesia's islands, the formalities of life are accompanied by the scent of jasmine and the sound of the percussion ensemble known as the

gamelan. At religious rites, weddings, funerals, theatrical performances, and state events, jasmine is worn and the gamelan is played. Besides the gamelan, with its great assemblage of gongs, there are instruments called genders, with bronze keys suspended over resonating bamboo tubes, and there is the gambang, a xylophone with bamboo keys. There are the flat sarong instruments, the kettle chimes of the bonang, and the kendang, which are slender drums played with the hands. The gentle music evoked from the Javanese orchestra is quite different from the music of the nearby island of Bali. The music of Java is more introverted, more contemplative, less spectacular. It has a hypnotic quality that is at once soothing and nerve-tingling. But the gamelan, gender, and gambang pieces heard here are never played for effect; they seem to sing to themselves of love and sorrow, the importance of patience, the sacredness of ceremony. Even when the *Liung*—which means "excited"—is struck up to accompany a mask dance, the excitement is inward and hinted at rather than proclaimed. The recording, although a little rough in spots, is an excellent addition to Nonesuch's intelligently programmed explorer series. P. K.

**JEAN RITCHIE:** *Clear Waters Remembered.* Jean Ritchie (vocals and dulcimer); Eric Weisberg (fiddle); Russ Savakus (bass); Happy Traum (guitar); Dick Weisman (banjo). *Pretty Nancy*; *Young Man Who Wouldn't Raise Corn*; *Johnny Collins*; *Shoemaker's Song*; *See the Waters a-Glidin'*; *Morning Come, Maria Gone*; *Black Waters*; and seven others. SIRE SES 97014 \$4.98.

Performance: **Soothing**  
Recording: **Good**  
Stereo Quality: **Good**

Sometimes it is difficult to remember that all so-called "folk" music is not angry and political. Jean Ritchie learned such innocent numbers as *Jenny Put the Kettle On*, *God Bless the Moon*, and *Over the River to Feed My Sheep* while growing up in the course of what she describes as "a long chain of hazy-golden years of almost total happiness." She sings these songs, sometimes with support from bucolic instruments such as fiddles, banjos, and dulcimers and sometimes unaccompanied, in a pure, rich, sweet voice that is a joy to hear. Even when she is reviving some tendentious ballad like *West Virginia Mine Disaster* or decrying pollution in *Black Waters*, her approach is entirely free of that nagging quality which can turn a tune into pestiferous propaganda. Most of the time, she is content to take us back to the songs that graced her childhood—*Pretty Nancy*, *Johnny Collins*, and *See the Waters a-Glidin'*, the last a jaunty old ballad about the soldier who plays the fiddle so expertly that a girl he plays it for on a May morning tries to persuade him to marry her—but he refuses, because he already has a wife and "two wives and the army's too many for me." This is a pleasant relief from the stridency of most "protest" music. P. K.

(Continued on page 99)



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# What LOUIS ARMSTRONG and JAZZ are all about



LOUIS ARMSTRONG, who was seventy on July 4 of this year, is a legend in his own time, as he has been, indeed, for close to half a century. But the fact tells us next to nothing about him. The very word "legend" seems to imply semi-fiction, or history inflated by fancy.

Louis Armstrong is everything the legend holds him to be: the greatest of early jazz cornet and trumpet players, a unique and improbable vocalist, an exuberant and extrovert celebrity, a showman of genius, and an American ambassador more widely known and more warmly accepted than anyone who ever left the White House with a letter of accreditation in his pocket.

It's all true. It's all attractive. And yet, in the end, it's all wrong—wrong because the legend is unjust to the man. Most legendary figures, being only human, fail to live up to the legend. The failure is commonly overlooked, ignored, or denied, because the legend, for sentimental or political reasons, is preferable to the truth. In Louis Armstrong's case it's the other way around. The truth surpasses the legend—and challenges credulity!

It must seem not merely improbable but quite impossible that any one man could have exerted so original and so decisive an influence on the evolution of Western music, least of all an essentially unlettered black trumpet player from New Orleans. But he did. Almost everything we have heard in the past forty years in jazz and in a large amount of popular music, short of folk and rock, derives from Armstrong.

It was he who liberated the improvising virtuoso jazz musician as soloist from the tight collective improvisation of New Orleans jazz. It was he who, by his own example, pushed back the technical boundaries of traditional musical instruments. And it was he who broke the stereotyped rhythmic procedures of

early jazz. With his incandescent introduction to *West End Blues*, recorded on June 28, 1928, Armstrong, according to Gunther Schuller in his book *Early Jazz*, "established the general direction of jazz for several decades to come."

Because Schuller, now President of the New England Conservatory of Music, a classical musician long identified with a serious approach to jazz, and composer of many works in the so-called "third-stream" idiom, is not given to careless hyperbole, his assessment of *West End Blues* merits our respectful attention:

The clarion call of 'West End Blues' served notice that jazz had the potential capacity to compete with the highest order of previously known musical expression. Though nurtured by the crass entertainment and night-club world of the Prohibition era, Armstrong's music transcended this context and its implications. . . . The beauties of this music were those of any great, compelling musical experience: expressive fervor, intense artistic commitment, and an intuitive sense for structural logic . . . Louis Armstrong never was and never will be an intellect. Yet there is no question that his music comes not *only* 'from the belly,' but also from a mind that *thinks* in musical terms and ideas.

The lay music-lover or jazz fan, accustomed to thinking of Armstrong as an amiable and irrepensible entertainer—even as a venerable and lovable clown—would be astonished if he had any idea of the extent of scholarly literature devoted to Armstrong's music. And no one, goodness knows, would be more astonished than Armstrong himself, or find it more bewildering and incomprehensible. Louis' improvisatory explosions, in fact, have been copied down measure for measure and subjected to the most painstaking melodic, harmonic, and rhythmic analysis.

The significance of his innovations is implicit in the fact that none of this

analysis really works. Notation is inseparable from the European conventions it was evolved to record and represent. It cannot reflect the myriad shadings of attack, color, vibrato, release, and so on that distinguish Louis' playing and singing. It cannot record the slight deviations from pitch and their harmonic and melodic implications. Nor can it reproduce visually the rhythmic subtleties so foreign to the fractional subdivision of units of time in the rhythmic organization of European music.

This is true of the music of all the great jazz musicians who came after Armstrong, and it is true of a few who came before him. But it was he who documented more originally, more vividly, and more decisively than anyone else the arrival of a musical idiom that defied assessment by traditional criteria.

LOUIS' own career after 1930 has helped to frustrate any just evaluation of his achievement. By the end of the Twenties he was already a celebrity. Indeed, as early as 1925 he was being billed, probably not inaccurately, as "the world's greatest trumpet player." And the role of celebrity suited both his talents and his disposition. He drifted, or was drawn, into the mainstream of popular music, playing and singing anything and everything that came his way. He appeared in moving pictures—always as Louis Armstrong, of course. He played and sang with popular musicians and popular singers, and not only with the best. He clowned and mugged and rejoiced in such monikers as "Satchmo" and "Pops." Whatever he played or sang he did in his own way, to be sure, and there is no denying that the "way" commonly transcended the "what." But he had nothing new to offer. The jazz world has never quite forgiven him, and sometimes it seems almost to have forgotten him—or to have abandoned him to popular music.

Jazz musicians of the generation after his were usually eager to honor their debt, and the best of the popular singers, too, acknowledged what their phrasing owed to his example. But to younger artists, further removed from the source in time and example, he has seemed an anachronism, both as a musician and a man. Or he has appeared, to put a better face on it, as a legend.

But as long as he can put two notes together in the context of a phrase he will place those notes, and color them and bend them, in a way that defies notation and analysis, and challenges imitation. He will be telling us what he has always known better than anyone else, if only intuitively and instinctively. He will be telling us what jazz is all about!

# JAZZ



## RECORDING OF SPECIAL MERIT

**MILES DAVIS:** *Bitches Brew*. Miles Davis (trumpet); Wayne Shorter (soprano sax); Lenny White (drums); Bennie Maupin (bass clarinet); Chick Corea (electric piano); Jim Riley (percussion); Jack DeJohnette (drums); Harvey Brooks (Fender bass); Charles Alia (drums); Dave Holland (bass); John McLaughlin (electric guitar); Joe Zawinul (electric piano); Larry Young (electric piano). *Pharaoh's Dance; Bitches Brew; Spanish Key; John McLaughlin; Miles Runs the Voodoo Down; Sanctuary*. COLUMBIA GP 26 two discs \$5.98.

Performance: Masterly modern jazz  
Recording: Excellent  
Stereo Quality: Excellent

The fact that the etymology of the words "jazz" and "rock" shows sexual origins for both is hardly coincidental. The gut sensations of both styles are sensual, even erotic, a dip into the surging unconscious in a fashion that is often lacking in the loftier art forms of the West.

Now I'll admit that's a pretty heavy introduction for a record review, but there's method to my verbiage. Undeterred by all the talk about synthesis between rock and jazz, and remembering the source of both those words, Miles Davis has quietly gone about his task of probing the common element between the two styles. And the principal thing they share is a fundamental appeal to deep sensuality.

"Bitches Brew" is probably going to be as influential upon the jazz of the Seventies as Davis' "All Blue" was upon the jazz of the Sixties—and that's saying a lot. One thing is sure: no jazz musician is going to be able to overlook what Miles has done on this, and his two previous, recordings. The ensemble is large, but not unwieldy, with Davis' pieces curling in and around the solos like a sensuous Oriental filigree. Every now and again saxophonist Wayne Shorter, pianist Chick Corea, and the gifted English guitarist John McLaughlin are highlighted against the ensemble, but the stage clearly belongs to Davis.

He has reached that stage of artistic maturity at which every note he plays has purpose, and the distinctions between sound and silence, between "noise" and tone, become non-existent. Only in his early forties, Davis already has seen the influence of his ideas affect more than twenty years of jazz, and he shows no sign of slowing down. "Bitches Brew" is exactly where Miles Davis is today, and increasingly, that is coming to be exactly where jazz is as well. D. H.

**BLUE MITCHELL:** *Bantu Village*. Blue Mitchell (trumpet); various accompanists. *Hnic; Flat Backing; Na Ta Ka; Heads*

*Down; Blue Dashiki; Bush Girl*. BLUE NOTE BST 84324 \$5.98.

Performance: Soul jazz/rock  
Recording: Good  
Stereo Quality: Good

Blue Mitchell, a dependable if not always inspired jazz trumpeter, deserved better treatment than he got on this outing. He is accompanied by a group of West-Coast musicians playing pieces written, for the most part, by arranger Monk Higgins. If the music has any distinguishing qualities, they're hard for me to spot. Most of the tracks are calculated, commercially focused blends of plastic rock music and jazz improvisation, spiced with a trace of African percussion. Somehow, in the midst of all the clatter, Mitchell plays a few nice phrases. But he does it on courage alone. D. H.

**MIROSLAV VITOUS:** *Infinite Search*. Miroslov Vitous (bass); Joe Henderson (tenor sax); John McLaughlin (guitar); Herbie Hancock (piano); Jack DeJohnette (drums). *Freedom Jazz Dance; Mountain in the Clouds; When Face Gets Pale; Infinite Search; I Will Tell Him on You; Epilogue*. EMBRYO SD 524 \$5.98, (B) M 8524 \$6.95, (C) M 5524 \$6.95.

Performance: Overweight jazz  
Recording: Very good  
Stereo Quality: Very good

A European refugee who has been in this country for only a few years, Vitous plays good enough bass to rank him with the best American jazz men. But even a contemporary Koussevitzky would have a hard time filling as much open space as Vitous takes here. Since he is accompanied by a knockout band with strong Miles Davis overtones (they seem to be heard almost everywhere in jazz lately), one might have expected more solo time to be allotted to, say, tenor saxophonist Joe Henderson or, at the very least, to English guitarist John McLaughlin. Unfortunately, producer Herbie Mann has indulged Vitous a bit too much. Plenty of good jazz here, but just too much bass. D. H.

**SMILEY WINTERS:** *Smiley Etc.* Smiley Winters (drums); various ensembles. *Two Trains; Love Is Enlightenment; Smiley Etc.; Frank's Blues*; and three others. ARHOO LIE 8004/5 two discs \$5.98.

Performance: West Coast avant-garde jazz  
Recording: Very good  
Stereo Quality: Good

Arhoolie seems to be specializing in San Francisco avant-garde jazz; this is their second or third release of material that fits that general category. Winters is one of those legendary local musicians who never seem to reach a national audience. He's a good drummer, but hardly important enough to warrant a double-disc set. The same holds true for the various ensembles. Tenor and soprano saxophonist Bert Wilson dominates most of the space, and he is the only player on the dates who really has enough to say; trumpeter Barbara Donald, his partner in the front line, is a journeyman player whose principal justification seems to be the surprise that all female brass players evoke. There's little more, however. With each side of the two discs including a maximum of two pieces, there is obviously an awful lot of stretching out. D. H.

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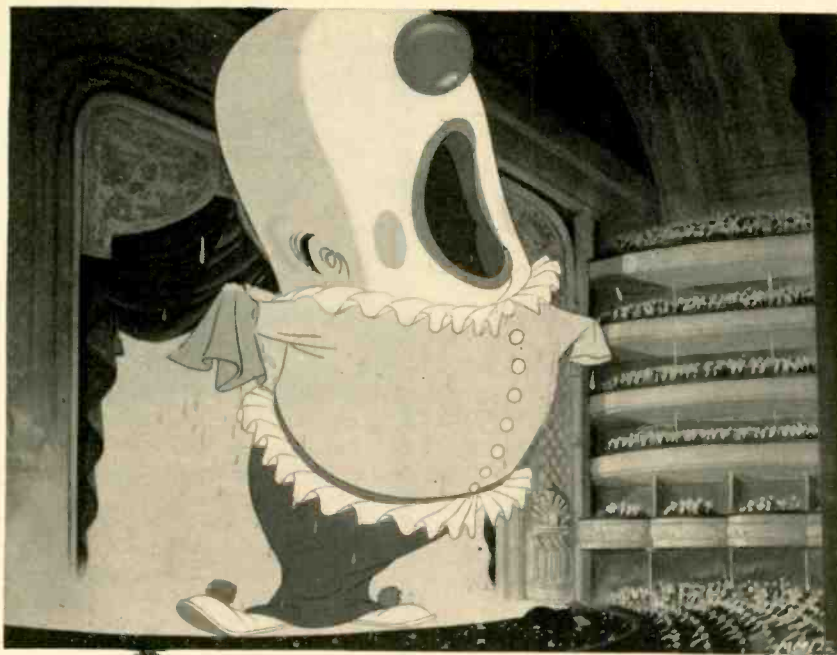
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## WHALES CAN'T SING, SILLY!

By Paul Kresh

*Seated upon the convex mound  
Of one vast kidney, Jonah prays  
And sings his canticles and hymns  
Making the hollow vault resound  
God's goodness and mysterious ways,  
Till the great fish spouts music as he swims.*

—Aldous Huxley, *Jonah*

(From the collection *Leda*, reprinted by permission of Harper & Row)

THE ocean, as I have suspected for some time, is a pretty noisy place. The "silent deep," it turns out, is really about as silent as a lion cage at feeding time. One more romantic illusion shattered! Anybody who has listened to Folkways' "Sounds of Sea Animals" (RX 6125), as I have, will know what a ruckus the snapping shrimp, toadfish, and white grunt can kick up when the tide is right, and the terrible disturbances porpoises can make as they whistle, click, and jabber away in sonic and ultrasonic efforts to communicate, or get their geographical bearings, or whatever it is that makes them so vocal. It's a wonder that our "finny friends," as the tropical-fish handbooks used to call them, get any rest at all.

Until recently, however, nobody has claimed seriously that any undersea creature makes *music*. That remained for Dr. Roger Payne, a 35-year-old zoologist with the Institute for Research in Animal Behavior in New York City. Dr. Payne, who studied owls in the hope of finding out how they can hunt in total darkness, and once demonstrated how moths elude hungry bats by figuring out the direction of their "sonar pulses," recently came out with the announcement that he had discovered that humpback whales sing songs. He has not only discovered it, he has made a record of whale songs, which you can get, along with a whale-sized book on the

subject, by sending \$9.95 to CRM Books in Del Mar, California. The whole thing has set up quite a commotion. I first heard about it on the eleven-o'clock news on television, and since then, there has been no end of side effects. Judy Collins has been talking about the song of the whale on interview shows. Mary Hopkin says she wishes she could sound like a whale herself. Alan Hovhaness has written an orchestral piece based on the whale songs which had a premiere performance by the New York Philharmonic during June. *The New Yorker* is to run a series by the novelist Peter Matthiessen about the discovery of whale music, and Jacques Cousteau is making a movie.

With all this buildup, I could scarcely wait for "Songs of the Humpback Whale" to arrive in the post. It proved to be quite a package. With an eye to marketing the item at Expo '70 in Osaka, where the whale songs were played to a thunderstruck public at the Pepsico Pavilion, the producers have put out both book and album in Japanese as well as English. This created an exotic impression at once. Then I put the record on, using earphones to give a "pleasant sense of vast echoey space" as recommended in the folder of "listening instructions," and pretty soon I was floating about in the auricular brine, listening to the song of a solo humpback whale, a recital that was obligingly repeated at a slowed-down

speed so I could get to hear high notes ordinarily beyond the range of the human ear. Later, I heard more whale music recorded by a hydrophone lowered from a sailboat in the vicinity of Bermuda, a "distant whale" and a "three-whale trip" performed by a sort of cetaceous counterpart of the Supremes. The listening instructions informed me that "whatever the occasion, the people who listened have been affected, often profoundly moved, by the songs. The song produces an extraordinary inner experience. . . . Perhaps the world is 'turning on' to whales."

Now, I don't know too much about modern music, but I do know what I like. Try as I would, I could not be moved by the whales' songs. Dr. Payne calls them "songs" because these "strange, ethereal sounds" occur in sequences that last from six to thirty minutes and are then repeated exactly. Different humpback, different song—but the pattern always recurs, as it does with birds. But, song or not, to this listener the humpback whale, whether in solo performance or accompanied, sounds more like a mewling cat or cats than a nightingale—with echoey electronic overtones that should prove no threat to Morton Subotnick or György Ligeti, although they may be of help to the whale in locating his friends, if he has any.

THE fact is, I have heard only one whale in my lifetime who might truly be said to qualify for a musical career. He was a whale named Willie, and he appeared in a segment of a Disney movie called *Make Mine Music* (1946) which apparently was well ahead of its time. Willie, whose performances were dubbed in by Nelson Eddy, could sing in three voices at the same time, and I mean sing. He did the "Clown Song" from *Punchinello*, the *Tristan and Isolde* love duet, a selection from *Faust*, the sextet from *Lucia*—and *Shortnin' Bread*, too. What he did best was Figaro from *The Barber of Seville*, which finally landed him an appearance at the Met. Willie would probably be singing at the Met to this day except that the wicked opera-house manager, Sr. Tetti-Tatti, had it in for the poor whale and slew him with a harpoon, and the episode ended in tragedy. I should like to know if any of Dr. Payne's whales claim to be able to do the entire sextet from *Lucia*—or even *Shortnin' Bread*. I rest my case.

The book that comes with "Songs of the Humpback Whale" is as crowded with information on the topic as an unabridged copy of *Moby Dick*, and beautifully illustrated. Much of the text is a plea against the senseless slaughter of our vanishing whales by avaricious whalers. Most of the profits from the record and book sales, in fact, are being forwarded to the New York Zoological Society's Whale Fund, devoted to the study and preservation of the species. So be nice and buy it; the cause is a worthy one, and maybe, all my carping (ouch!) aside, that's what the whales are really trying to tell us.

**SONGS OF THE HUMPBACK WHALE** (book and record). Can be ordered by sending \$9.95 to CRM Books, P.O. Box 131, Del Mar, California, 92014.



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**RODRIGO:** Concert—Serenade for Harp and Orchestra (excerpt from the first movement) Deutsche Grammophon Gesellschaft • This excerpt provides a wealth of instrumental color behind a harp solo. The music is clear, colorful, rather classical, and immensely entertaining.

**MANITAS DE PLATA:** Gypsy Rhumba (complete) Connoisseur Society • The recording puts the listener in the center of a flamenco party by precisely transmitting the directionality, depth and ambiance of this completely impromptu recording session.

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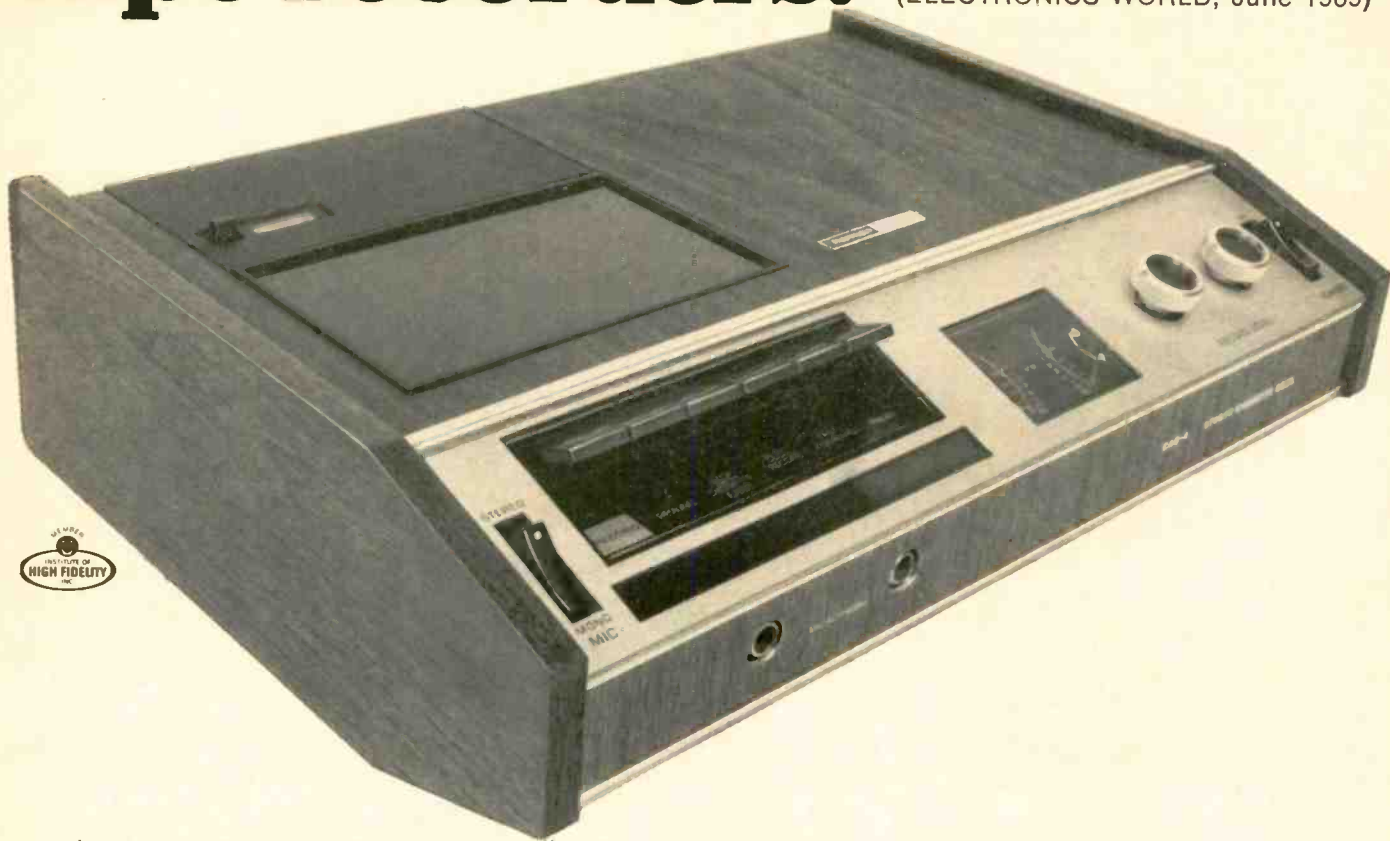
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# STEREO TAPE

Reviewed by NOEL COPPAGE • PAUL KRESH

## RECORDING OF SPECIAL MERIT

**BACH, J. S.:** *Brandenburg Concertos (complete)*. Chamber Orchestra of the Saar, Karl Ristenpart cond. NONESUCH © N6 3006 \$6.95, ® A 3006 (7½) \$4.95.

Performance: Brilliantly Baroque  
Recording: Excellent  
Stereo Quality: Excellent  
Playing Time: 90'49"

Bach composed the six Brandenburg Concertos in 1721 for the orchestra of Christian Ludwig, the Margrave of the German province of Brandenburg, while he was serving as court musician to Prince Leopold in the little town of Cöthen. Instrumental music was constantly in demand at the Cöthen court in those days, and it was the composer's most prolific period. Not a single solo or ensemble concerto by Bach was published before his death, however, and it was 1850 before the scores of the Brandenburg concertos appeared in Berlin as part of a centenary celebration of Bach's death. How lucky we are to have them!

"Six Concerts avec plusieurs instruments" is how Bach titled them, and indeed each has a different instrumental texture. Just about everything one could do with a Baroque orchestra was done by Bach in these complex pieces, and just about everything an orchestra can do to bring the scores to life was managed by Karl Ristenpart with the Chamber Orchestra of the Saar. So expert and idiomatically correct are the performances, in fact, that although more glamorous names are affixed to other versions of these works (Munch, Klempner, Karajan), none of them tops this one.

Most surprising is the quality of the sound. It is rich and full—the best I have heard from any cassette so far (the original recording was made through the Dolby system)—and the usual cassette hiss is virtually nonexistent. Add to this the fact that the two sides play superb music for an hour and a half at a very reasonable price, and it is plain that this one is a bargain. P. K.

### Explanation of symbols:

- Ⓜ = reel-to-reel tape
- ④ = four-track cartridge
- Ⓢ = eight-track cartridge
- ⓐ = cassette

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

Monophonic recordings are indicated by the symbol Ⓜ; all others are stereo.

**BEETHOVEN:** *Concerto, in C Major, for Violin, Cello, Piano, and Orchestra, Op. 56*. Conrad Van der Goltz (violin); Jan Polacek (cello); Kirste Hjort (piano); Nuremberg Symphony Orchestra, Othmar M. F. Maga cond. CASSETTE MUSIC CORPORATION © CMC CS 519 \$6.95.

Performance: Intrepid  
Recording: Uneven  
Stereo Quality: Out of frame  
Playing Time: 38'

The sound of the music on this tape from Cassette Music Corporation, which puts out



**MSTISLAV ROSTROPOVICH**  
Superb artistry in two cello favorites

material from Europe not available here on discs, is a little harsh in comparison with what has been achieved by Deutsche Grammophon in the same medium, and the piece is improperly labelled as "Trio in C Major, Op. 56"—it is actually the Triple Concerto, of course, as listed above. What Beethoven could make three soloists and a symphony orchestra do is almost unbelievable in terms of sheer sweep and ingenuity, and Maga brings off an extremely difficult feat of coordination in this performance with the Nuremberg Symphony. I was not happy at first with the way the soloists were balanced—one or another seemed to protrude from time to time, like a foreground figure in a badly composed photograph—but this cleared up after a bit and anyhow, this listener forgot cassette quality, indifferent engineering, and even occasional roughness of string sound as the work itself engulfed me. Recommended

for all but technological fussy budgets. No notes. P. K.

## RECORDING OF SPECIAL MERIT

**DVOŘÁK:** *Cello Concerto, in B Minor, Op. 104*. **TCHAIKOVSKY:** *Variations on a Rococo Theme, Op. 33*. Mstislav Rostropovich (cello); Berlin Philharmonic Orchestra, Herbert von Karajan cond. DEUTSCHE GRAMMOPHON © DGG 823098 \$6.95.

Performance: Mellow cello  
Recording: Good  
Stereo Quality: Good  
Playing Time: 60'17"

Here is a generous coupling of two nineteenth-century Romantic works for cello and orchestra whose composers did not stint themselves in fashioning big, broad, magnificently colored canvases that draw upon all the lyrical possibilities of this mellowest of string instruments. Dvořák, turning to his native soil for inspiration not long after completing the "New World" Symphony in America, created a rhapsodic, soaring concerto that owes much to his mentor Brahms, but is also reminiscent of his own tone poems, which are musical landscapes as bountiful as the natural world they celebrate. The Tchaikovsky piece has the lightness and transparency of the Mozartian textures he admired, but is deeply Russian in the poignancy and yearning of the elegiac passages that alternate with stretches of virtuosity and fire for the soloist. In both works, the superb cellist is Mstislav Rostropovich, a Russian virtuoso whose father studied with Casals. The sound—slightly compressed though it is on this DGG cassette—is good in the Dvořák and even better in the Tchaikovsky. Notes are included. P. K.

**SATIE (arr. Camarata):** *Trois Gymnopédies; Heures séculaires et instantanées; Avant-dernières Pensées; Passacaille; Trois Gnossiennes; Trois Nocturnes; Embryons desséchés; Enfantillages pittoresques; Peccadilles importunes; Pièces froides*. The Camarata Contemporary Chamber Group. DERAM © M 77636 \$6.95.

Performance: In the spirit  
Recording: Excellent  
Stereo Quality: Excellent  
Playing Time: 46'55"

To my knowledge, this is the first time any of Erik Satie's music has been released in cassette form, and Deram, a child of London Records, has packaged it well. In fact, this particular cassette has the best reproduction of bass notes and the best stereo quality of

any I have heard. Still, it does have a slight hiss at normal listening volume (some of them do not), and it does falter at times on extreme high notes (practically all of them do). The Camarata Contemporary Chamber Group uses the Moog synthesizer on some selections and conventional chamber instruments, plus a softly strummed guitar, for others. I think Satie, the most deliberately eccentric composer ever to sprinkle a page with comical annotations, would have enjoyed the Moog. The contraption is used sparingly here; most of Satie's music is simply too gentle and innocent to entrust to it.

The pieces apparently evoked the feel of velvet for someone connected with producing this recording, because it bears the title "The Velvet Gentleman." To me, these pieces belong in a sylvan setting in springtime, butterflies fluttering softly about, the pollen count down, the whole thing backlit so that the pale green spring leaves are edged in yellow flame—and if a unicorn should happen by, that's all right too. . . . But I don't know. With the Moog in there, and the jazzy arrangements, maybe what we have here is a soft focus on a boy and girl making a Salem commercial. Ah, well. It's pleasant anyway, and a dandy change of pace from almost any kind of music you have been hearing lately. N. C.

#### RECORDING OF SPECIAL MERIT

**STRAUSS, R.:** *Festival Prelude; Till Eulenspiegel; Don Juan; Salome's Dance.* Berlin Philharmonic Orchestra, Karl Böhm cond. DEUTSCHE GRAMMOPHON © DGG 923120 \$6.98.

Performance: Strauss to a turn  
Recording: Very good  
Stereo Quality: Spacious  
Playing Time: 54'58"

Strauss fans, here is a cassette indispensable for your collection. Karl Böhm is one of the most satisfying conductors of this composer's work on the face of the earth, and probably has been ever since he gave the first performance of the opera *Die schweigsame Frau* in Dresden in 1935: his *Rosenkavalier*

remains for me the best available on records. And in this eventful cassette-packaged concert, all his qualifications are on display: the ability to separate the complex instrumental strands in a thick Straussian passage so that it glows rather than growls; the intimate acquaintance with every last nuance and detail, so that not a single note seems perfunctory; the instinct for exactly the right tempos and dynamics; the courage to push the sweep of a sweeping climax just a little further and the restraint to prevent the whole pattern from sinking into the abyss of vulgarity.

The program opens with an excruciatingly long-faced and pretentious score entitled *Festival Prelude*, but Böhm manages to salvage some nobility and excitement from the solemnity. Then comes a *Till Eulenspiegel* that is extremely satisfying in terms of color



KARL BÖHM  
*An indispensable cassette for Straussians*

and commotion—a Super-Till among orchestral clowns. *Don Juan*, my favorite of all Strauss tone poems, sends its insatiable hero far beyond the literal bounds of romantic adventure on a quest for something behind the stars, and his weariness and revulsion when that great horn passage begins is more devastating here than I have ever heard it before. As for *Salome*, she has done some spectacular stripping for Karajan and Fritz Reiner, but never danced so seductively or so heartbreakingly as she does for Böhm. The Berlin Philharmonic under his command is nothing less than magnificent. P. K.

**TCHAIKOVSKY:** *Variations on a Rococo Theme* (see DVORÁK)

**VERDI:** *Aida* (highlights). *Se quel guerrier . . . Celeste Aida; Sul del Nilo; Ritorina vincitor!; Gloria all'Egitto* (Triumphal Scene); *O patria mia; Ciel! mio padre! . . . Rivedrai le foreste; Già i sacerdoti; Ah! tu dei vivere!; La fatal pietra.* Renata Tebaldi (soprano), Aida; Cornell MacNeil (baritone), Amonasro; Carlo Bergonzi (tenor), Radames. Vienna Philharmonic Orchestra, Herbert von Karajan cond. LONDON © M 31025 \$6.95, © LOL 90025 (7½) \$7.95.

Performance: Thrill-a-minute  
Recording: Superior  
Stereo Quality: Exceptionally life-like  
Playing Time: 56'05"

Opera highlights remove some frustrations for the casual listener and impose some for the *aficionado*. It is satisfying to get to the heart of the matter—Sr. Bergonzi has launched into his impassioned rendition of "*Celeste Aida*" almost before you've had a chance to catch your breath here—and whole stretches of developmental and recitative matter are cleared away so that Verdi's most inspired moments follow one after another like spectacular musical circus acts. But there are disappointments, too. I was just settling down to enjoy Karajan's loving treatment of the ballet music when the editors lifted me blithely into the final chorus of Act Two, for which I was not quite ready psychologically. Tebaldi fans can hear her in all her big numbers—"Ritorna vincitor!", "*O patria mia*," and the tomb scene in almost giddy succession, and the big choruses, particularly brilliant on this occasion, abound in generous measure. But you never really get a chance to care about the characters or the plot in this condensation, and Miss Tebaldi, whose Aida is a rather cool customer compared with, say, Leontyne Price's, does not help to maintain the high temperature necessary if Verdi's Egyptian pageant is to sound more than decorative. At any rate, these are operatic titans in splendid voice, with the conductor getting the best out of all his forces, and the sound, as cassettes go (Ampex makes London's), is uncommonly good. It's a far cry from the Victor Opera Company's "Gems from Aida," when the entire opera was condensed to two sides of one 78-rpm twelve-inch disc back in the old acoustic days!—but still, I am sorry to say, no liner notes. P. K.

#### ENTERTAINMENT

**ENOCH LIGHT AND THE LIGHT BRIGADE:** *The Best of the Movie Themes 1970.* Malcolm Dodds (vocals); unidentified girls' chorus; The Light Brigade Enoch Light cond. *The Day of Anger; True Grit; Summer Me, Winter Me; Everybody's Talkin'; Goodbye Columbus; Alice's Restaurant;* and six others. PROJECT 3 © M 55046 \$6.95, © M 85046 \$6.95.

Performance: Contrived  
Recording: Excellent  
Stereo Quality: Fair  
Playing Time: 30'55"

Enoch Light's orchestra seems always to be working in conjunction with the latest super-stereo recording process. It is now working for Project 3, which produces a brilliant-sounding cassette; the dynamic range here is fantastic, although the stereo is a bit lopsided. What the Light Brigade does with all that beautiful processing is something else again. This recording is a vulgar exhibition of gaudy and hoked-up arrangements, as if the idea was to make a stereo demonstration cassette. There might be something of interest in the selections here, since a few of them actually haven't been overplayed by radio stations, but I found myself unable to concentrate. The Light Brigade, for all its effort, produces what amounts to Muzak. If your interest runs to technology rather than music, if you have a friend or enemy who doubts the excellence of your playback equipment, or if you enjoy hassling with your neighbors, this may be for you. If your interest is in music, shop elsewhere. N. C.

#### A Segovia Festival on Tape

Guitar aficionado, Segovia fan, and catalog browser though I am, I was still taken somewhat by surprise by a packet of cartridges that arrived for review recently from Decca. It contained no fewer than twelve programs by the Spanish master in the eight-track format, a veritable "discography" of that artist playing everything from Bach to Mompou. Most have been in the disc catalog for some time, but they are now being made available in the newer eight-track and cassette formats as well. The contents, as mentioned, are such an encyclopedic survey of Segovia's repertoire that space does not permit listing them here. But if this guitarist is as secure in your musical affections as he is in mine, you will want to check out the following numbers at your dealer's: 9751, 9931, 10027, 10034, 10043, 10054, 10063, 10093, 10112, 10140, 10167, and 10171. A prefix of 6 indicates the eight-track version, a prefix of 73 the cassette; prices are \$7.95 each. —Ed.

## RECORDING OF SPECIAL MERIT

**NILSSON:** *Nilsson Sings Newman*. Nilsson (vocals); various accompaniments. *Love Story*; *Cowboy*; *Yellow Man*; *Living Without You*; *Caroline*; *So Long Dad*; and four others. RCA © PK 1539 \$6.95, © P8S 1539 \$6.95.

Performance: **Mellow**  
Recording: **Good**  
Stereo Quality: **Fair**  
Playing Time: **27'8"**

Randy Newman writes logical, pretty, old-fashioned melodies, and he writes lyrics like nobody else in the world. He writes something like the way Charlie Schulz draws Charlie Brown, with wit and compassion but with a sharp eye for weaknesses, too. Newman writes face-to-face about people, not sociologically. In some ways, he is as straight as a bow-tied accordion player in the Lawrence Welk band, and yet he is wry, campy, and funny, and has a uniquely contemporary tendency to picture man complete with warts and still call him beautiful.

Nilsson, who has created reminiscence music of his own at times, seems to me the best possible choice to sing Newman's songs. And someone has got to do it, because Newman's voice drives too many people up the wall. Nilsson also seems to take himself less seriously than does Newman—this recording has a pleasantly campy spirit. His voice has been antiqued, has those neat, fussy little gold stripings around its edges. I'm sure a market analyst after surveying today's pop music would have advised Nilsson to be a plumber—heaven knows what he would have told Newman to do—but I wager this Nilsson-Newman tape will go into record cabinets that house Rolling Stones works all across the land.

The temptation is great to quote a few lines from, say, *Love Story*, to show what a deft satirist Newman is, but that would be spoiling the fun for those who have not yet heard Nilsson sing the words. This is a sparkling little tape, marred only slightly by a bit more hiss than seems necessary. I can foresee people of widely differing tastes being warmed and charmed by it. N. C.

**PLUS:** *The Seven Deadly Sins*. Plus (vocals and instrumentals). *Twenty Thousand People*; *Toccata*; *Daddy's Thing*; *Pride*; *Open Up Your Eyes*; *Devil's Hymn*; *Maybe You're the Same*; and three others. PROBE © M54513 \$6.95, © M 84513 \$6.95, © M 54513 \$6.95.

Performance: **Good opposed to evil**  
Recording: **Good**  
Stereo Quality: **Excellent**  
Playing Time: **34'30"**

This is probably a better recording than the producers set out to make. Guessing at others' motives can be dangerous, but it seems likely that this one is connected with the interest in the "good" and "evil" cults that have appeared in California over the past year or so and were published by the media after the Tate murders. Conceived in gimmickry—and there is some of that in the execution, too, including a baby's cry (Rosemary's?) in the middle of the song about the sin of wrath—the thing turns out unexpectedly honest because of the care and skill that went into it.

It is, of course, a program about the seven

deadly sins and has a beginning, middle, and end. To evoke the various moods required, Plus uses most of the studio rock techniques invented by the Beatles, and some of its own. A real pipe organ, a chanting choir, cellos, violins, various sound effects, all are carefully plotted into the program with generally successful results—the group didn't release its experiments. Through it all there is good, solid, driving rock, showing (perhaps) Pete Townshend influences. The songs are consistently good and consistently musical, with a surprise in the lyrics now and then, like this one in the song about sloth: "Open your eyes and go to sleep; an overactive mind will make you weep."

The disc's pose as a celebration of evil is so transparent that the simplest among us will realize he is being moralized at, but I



NILSSON

*Perfect for Randy Newman songs*

doubt that many will mind. The music is what they pay for, and there is music here. N. C.

**WILD THING:** *Block Party*. Wild Thing (vocals and instrumentals). *In a Gadda da Vida*; *My Girl*; *Sooky Sooky*; *Mercy Mercy*; *Born on the Bayou*; *Born to be Wild*; *Magic Carpet Ride*; *Good Lovin'*; *Revolution*; and five others. ELEKTRA © M 54059 \$6.95.

Performance: **Second-class**  
Recording: **Excellent**  
Stereo Quality: **Very good**  
Playing Time: **39'19"**

This recording is unique in that it is one of the few in which a rock group performs a cross-section of other rock groups' hit songs—and their arrangements too, in many cases. It is roughly a parallel to the sort of thing that used to go on before rock became dominant in pop music ("Percy Faith Plays Golden Hits," etc.). Wild Thing puts itself through quite an ordeal trying to do *In a Gadda da Vida* something like the way Iron Butterfly did it, and then trying to do *My Girl* something like the way the Mamas and the Papas did that. Steppenwolf fans will be particularly upset when they hear how *Born to Be Wild* has been done up; even Beatles fans, by now accustomed to hearing others take indecent liberties with their boys' work, will wince if they let the tape run long enough to hear *Revolution*. The group has musical as well as conceptual shortcomings,

and overworks its organist something fierce—apparently because it can't get the sounds it wants from the other instruments.

The kids can buy the Steppenwolf, Iron Butterfly, and Creedence Clearwater originals of these songs, so I don't expect this tape to sell more briskly than it deserves to. Elektra should find something better to do with its engineers' skill at reproducing sound on slow-moving tape. N. C.

**ZEPHYR.** Zephyr (vocals and instrumentals). *Cross the River*; *St. James Infirmary*; *Huua-Buua*; *Sail On*; *Sun's a-Risin'*; *Raindrops*; *Hard Chargin' Woman*; *Boom-Ba-Boom/Somebody Listen*. PROBE © M 54510 \$6.95, © A 4510 \$5.98, © M 84510 \$6.95.

Performance: **Uneven**  
Recording: **Very good**  
Stereo Quality: **Good**  
Playing Time: **42'34"**

Zephyr is a heavy-rock/blues group with jazz connections. The vocals are by a young lady, identity unknown to me, who seems to have reasoned that a cross between Janis Joplin and Grace Slick was what the world needed. The tiny segment of the world that is me was doing just fine without it. The Zephyr instrumentals are well played but lean too heavily on the organ for my taste. The group seems somehow not together much of the time, and lacks spontaneity. There are exceptions, notably on *Hard Chargin' Woman*, a big, dramatic blues piece with a ponderous beat, and *Sun's a-Risin'*, in which we hear some good blues harmonica.

The group never seems to reach its potential on this disc, mainly because it isn't getting the mileage out of the voice and organ as blues instruments. Its shortcomings are all too apparent on *St. James Infirmary*. But I'd like to hear them again after some adjustments are made. N. C.

## THEATER MUSIC

**JOY** (Oscar Brown, Jr.). Original-cast recording. Oscar Brown, Jr. and Jean Pace (vocals); Sivuca (piano, guitar, accordion); James Benjamin (bass); Norman Shobey (congo); Everaldo Ferrarra (drums); Sivuca cond. RCA © OK 1045 \$7.95, © 08S 1045 \$7.95.

Performance: **Subdued**  
Recording: **Good**  
Stereo Quality: **Excellent**  
Playing Time: **59'55"**

The Broadway musical may still serve a purpose, but contributing to the improvement of popular music doesn't seem to be it. The music of *Joy*, isolated from the razzle-dazzle of the stage and played cold in the living room, is almost painfully innocuous. *Brown Baby*, for example, plays at being an eloquent ballad, but it is such a formula song that its effect is unintentional irony. Latin and Afro rhythms are used extensively here, but they don't generate much excitement. The last song, *Funky World*, has by far the most interesting arrangement and lyrics, but its dumb non-melody is a disappointment.

The performers don't sound quite as bored as you would expect, given the material they're performing. There are black musicians who could, theoretically, produce a musical free of the inhibitions that seem to afflict the white men working Broadway, but they haven't done it here. N. C.

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By CRAIG STARK



## TAPE HORIZONS

### OFF THE BEATEN TRACK

**M**OST of us use our recorders primarily for music recording and playback. This month, though, I want to introduce you to a most unusual tape hobbyist. His name is Dick Kenny, and for many years now he has devoted himself (and more than two thousand reels of tape!) to hunting out the aurally arcane—events occurring in the world of sound that are unusual, infrequently encountered, or potentially of special interest.

There isn't much that Dick, a retired accountant and showman who bills himself as "The Crazy Tapeworm," doesn't have in his carefully indexed collection. For example, have you ever heard the footsteps of a moth, the heart-beat of an unhatched chicken, or the singing of an oyster? By capturing such sounds Dick has shown that micro-recording can do for our ears what micro-photography can do for our eyes. Or, if you seek wider horizons, he can take you around the world, thanks to tapespondents all over the globe who have contributed authentic sounds from their own locales. Historical events are well represented, too, ranging from Orson Welles' broadcast of "War of the Worlds" (which threw the country into a panic in 1938) to the last transmission made by a rebel Hungarian station during the Russian occupation of 1956. And for those interested in pure Americana, little can compare to Dick's collection of old-time radio shows.

Though a number of his reels have found commercial applications, Dick is primarily interested in a free exchange of tapes (usually 5-inch, 7½ ips) with other sound collectors. If you want to join the fun, simply write a letter or tape a message to: Mr. Richard Kenny, 710 S. E. 2nd Terrace, Pompano Beach, Florida 33060.

Readers of this column may also be interested in "tapesponding," a hobby of correspondence by tape that brings together—at least aurally—a great many people who would otherwise never meet. Such clubs provide a structure that facilitates social activities, the accumulation of tape libraries, and a number of other services as well. Perhaps the most popular activity is the "Round-Robin" tape, in which each successive person on a list adds his own comments to everything that has gone before and sends it on to the next recipient. Tape recording clubs are numerous, and international in scope; I have received publications from as far away as Australia.

In this country, perhaps the best known association is the Indiana Recording Club, whose monthly bulletin, "Tape Squeal," crosses my desk regularly. Its President, Mr. Graham LeSturgeon, says that the club stands ready to welcome members throughout this country and abroad. Tape slide shows, a "Voice of History" library, and many other collections are available; I recently contributed a remarkable conversion account by Bishop Chandu Ray of Pakistan, the first translator of the Bible into Tibetan, receiving in return a most interesting tape recounting what tapesponding had meant to a Czechoslovakian refugee. Readers wanting to contact the I.R.C. should write to Mr. LeSturgeon at 34 West 42nd St., Indianapolis, Ind. 46208. Other recording clubs seeking new members can send information directly to me at STEREO REVIEW and I will pass it on (when I have enough material to make it worthwhile) via this column.



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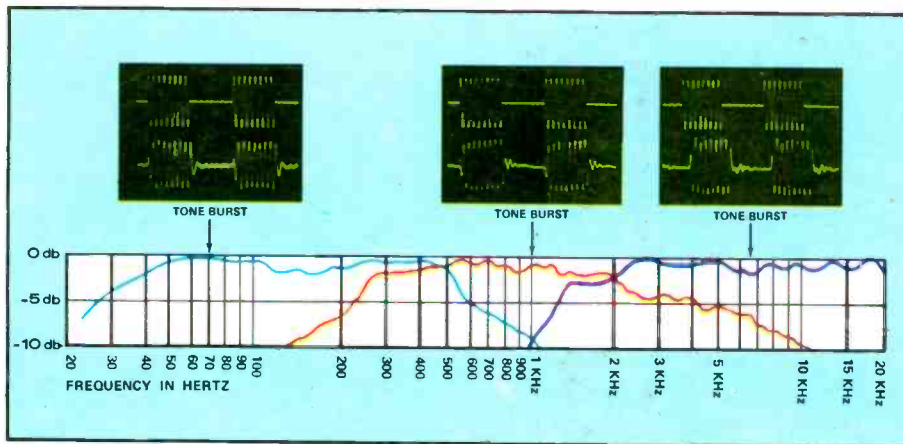


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# Unretouched photographs and the unvarnished truth about the new ARIES Console Speaker System.



Ⓔ If you are as serious about musical reproduction as we are, the following discussion may help you in choosing your next speaker system. And the actual response curves and tone burst tests may prove most revealing when compared with other speaker systems currently available.

Aries is an uncommon speaker system. Larger than the ubiquitous bookshelf speakers for a very sound reason: greater internal volume permits a worthwhile extension of bass with lower distortion and higher efficiency. Effective use of this volume comes from a 12" woofer with 9½ pound magnet structure, new sealed-foam

half-roll surround, and rigid deep-cone geometry. It's a combination that insures ¾" linear cone movement, precise transient response, and high power handling capacity without frequency doubling.

The mid-range was designed with equal care. A specially treated 6" cone speaker is mounted in its own sealed inner enclosure. Speaker resonance is well below the crossover point to insure peak-free response and clean transients in this sensitive part of the spectrum. Oscilloscope testing of every unit is routine so that laboratory standards are maintained in production.

The Aries 2½" cone/dome tweeter is particularly unique. For instance, to obtain ultimate response, damping compound is metered onto the cone within a tolerance of ±0.001 oz. And control of cone/dome materials insures a radiation area that varies predictably with frequency to insure uniform dispersion at all frequencies.

Even the crossover network is unusual. Four inductors (iron-core type for the woofer to avoid losses), three capacitors (with a Mylar type for the tweeter to maintain response beyond the high frequency limitations of electrolytic types), and a 5-position rotary ceramic switch offers precise control with up to 10 db attenuation at 10 kHz.

But Aries is more than a distinguished music reproducer. It is also handsome furniture in its own right. Tasteful design and robust construction set Aries apart from the anonymous styles of the past. In every detail from the hidden 2" x 4" bracing to the authentic hardware and richly finished hardwood veneers, Aries can be an attractive addition to your home... a delight to ear and eye.

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