THE SENSE OF HEARING: ODD FACTS FOR AUDIOPHILES
M. PIERRE BOULEZ OF THE NEW YORK PHILHARMONIC
A SHORT HISTORY OF BELLS ★ MUSIC AT THE MOVIES
Fisher 500-TX is the Satellite receiver.

Tune it manually.
Traditionalists can tune AM and FM stations in the normal way, with Fisher's ultrasmooth flywheel drive.

Or by push button.
Preset your four favorite FM stations on the miniature dials. After that, tune to any one instantly, at the touch of a button. The station will be locked in electrically, so there'll be no drift.

Or by AutoScan:
Touch one of these two buttons and the next FM station up or down the dial is automatically tuned in, dead center. Hold down either button and all FM stations up or down the dial come in, one by one.

Or by remote control.
With this optional accessory (the Fisher RK-30, $9.95) you can operate the AutoScan from your easy chair or bed.

"It costs less than other, less powerful, less versatile, less sensitive receivers. It's $449.95. (Walnut cabinet, $22.95. Prices slightly higher in the Far West.)"

"190 watts ± 1dB at 8 ohms. Other receivers that claim big power are nearly always rated at 4 ohms. Their power into normal 8-ohm speaker systems is actually less."
Do this.

Or do this.

Or do this.

Or do this.
You'll be able to do more things with the new Fisher 500-TX than with any other receiver in history.

In addition to being able to choose your favorite FM station manually, or three ways automatically, the 500-TX lets you control speakers throughout your home.

You can set up, and control, a center-channel speaker in your main stereo setup. Plus, you can set up remote stereo speakers in another room and listen to just the remote speakers. Or just the main stereo system. Or all at the same time.

Plus, since the 500-TX delivers an enormous 190 watts into an 8-ohm load, you'll have enough power to feed still another pair of stereo remote speakers.

Plus, you can feed a single, remote mono speaker without the receiver out of the picture. Simply use the center connection to feed a remote speaker in your home!

And there's more. The 500-TX offers facilities for the simplicity of the single stereo tape recorder, monitor either track through both your stereo system. Or in reverberation effect to the center speaker. Or both. Or all at the same time.

Other features of the Fisher 500-TX are even more exciting than the ones we've mentioned. In addition to its power, it will be one of the most versatile receivers on the market.

Mail this coupon for your free copy of The Fisher Handbook, 1969 edition. This reference guide to hi-fi and stereo also includes detailed information on all Fisher components.

Fisher Radio Corporation
11-35 45th Road
Long Island City, N.Y. 11101

Name
Address
City State Zip

0209691
From: Sales Department  
To: Engineering Department  
Subject: Development of a speaker system that permits control of the sound distribution in a room.

Give us a speaker system that:

1. Permits a pair of speakers to be used any distance apart, any spacing from a wall, and can be used on the floor or on a wall.
2. Can also be used side-by-side, yet produce stereo the acoustical equivalent of optimum spacing.
3. Does not require an inordinately high power amplifier or extraneous electronic equalizer.
4. Will preserve stereo separation and definition everywhere in the listening area.

From: Engineering Department  
To: Sales Department  
Subject: Speaker system that permits control of the sound distribution in a room.

Okay, we've done it!

We call it 'VARIFLEX'.

From: Sales Department  
To: The Public  
Subject: VARIFLEX

This exceptional, unique speaker system, probably the most significant breakthrough in home stereo reproduction, will be formally announced in October.
THE MUSIC

MUSIC IN THE UNITED STATES
A review of a new book by H. Wiley Hitchcock

THE BASIC REPERTOIRE
Mozart's Symphony No. 38, "Prague"

IS THERE ANY MUSIC AT THE MOVIES?
A light history of film soundtracks

STEREO REVIEW TALKS TO GEZA ANDA
Continuing a series of interviews with recording artists

PIERRE BOURJEZ OF THE NEW YORK PHILHARMONIC
An interview with the newly appointed music director

BELLS, BELLS, BELLS
The oldest musical instrument seldom gets its due

AMERICA'S BELL RINGERS GIVE YALE 4-DAY CONCERT
A report on this year's convention of carillonneurs

THE EQUIPMENT

NEW PRODUCTS
A roundup of the latest high-fidelity equipment

AUDIO QUESTIONS AND ANSWERS
Advice on readers' technical problems

AUDIO BASICS
Test Records

TECHNICAL TALK
Specifications of AM/FM Tuners: Hirsch-Hauke laboratory reports on the JVC 5001 AM/FM stereo receiver, the Nordmende 5001/T tape recorder, and the Scott 5-15 speaker system

FOUR-CHANNEL STEREO
"Wrap-around sound" is ready for demonstration

THE SENSE OF HEARING
Little-known facts about how we hear

INSTALLATION OF THE MONTH
Sectional Stereo

TAPE HORIZONS
Mixing a Master

THE REVIEWS

BEST RECORDINGS OF THE MONTH

CLASSICAL

ENTERTAINMENT

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EDITORIALLY SPEAKING

LETTERS TO THE EDITOR

GOING ON RECORD

INTRODUCING THE STAFF: PAUL KRESI

ADVERTISERS' INDEX; PRODUCT INDEX
QUADRASONIC STERE0

IT MAY sound like heresy, sacrilege, or worse, but I must confess, in all candor, that although I was intellectually impressed by the supreme technical accomplishment that has just put two residents of this planet on the moon, I could not share the emotional responses of wonder, awe, and excitement that gripped many of my friends. I blame this loss of innocence (current pop-psych jargon would call it "Affekt") on Arthur C. Clarke, Isaac Asimov, Robert Heinlein, and others whose science fiction tales have explored all this ground and more.

To descend abruptly from the celestial to the worldly plane, I blame some of these same prescient gentlemen for spoiling a good part of my pleasure in another area where reality is at last catching up with fiction. In your run-of-the-mill space opera, the pleasures of music usually emanate from a "sound cube" which, when dropped into some little black box or other, immediately produces a sonic envelope that completely surrounds the listener. And "Surround Stereo" is the name Vanguard Records has chosen to give to the first releases of recordings intended for (simultaneous) four-track playback, a system capable of reproducing music and the acoustical properties of the auditorium in which it was recorded. Risking an ill-omened paraphrase, I can say that I have heard the future, and it works. The four-channel recording technique is, on the face of it, simplicity itself: two microphones pick up ordinary stereo sound from the front while two others pick up hall reverberations from the sides and rear. Playback requires four separate channels of amplification (two stereo amplifiers) and four speakers. There is, of course, more to it than that. Microphone placement even for "simple" stereo still remains, after over a decade of experience, more an art than a science, and the addition of two channels may increase difficulties exponentially rather than arithmetically. In playback too, speaker placement and playback levels (particularly for the two rear channels) are likely to require very nice adjustment in the home.

As for format, Vanguard will release its first recordings (Borliz's Requiem and the Mahler Ninth among them) in reel-to-reel tape. A four-channel disc is technologically feasible (by multiplexing the rear-channel signals on a 25-kHz carrier that many modern cartridges are capable of reproducing), but is not being considered presently. The cassette is a possibility, but patent-holder Philips (at least for now) is determined to preserve the compatibility of this medium—its licensees are not permitted to depart from the two channels forward, two channels back arrangement nor, indeed, the 1/2 ips speed. There are several reel-to-reel tape machines currently available that will play back four channels simultaneously, and others can be adapted for the chore rather simply through head rearrangement or addition.

The sonic impression is, I might add, spectacular in its realism: the "hall sound" is palpably there when the whole system is "go," and for an old concert-goer like this one, the experience is gratifyingly musical. Audiophiles blessed with the proper equipment will have an opportunity to check this themselves with the Vanguard releases, and those along the Boston-New York axis can hear it on the air or in audio salons—see page 56 for details.
Why did over 3/4 million record and tape collectors pay $5 to join the Record Club of America when other record or tape clubs would have accepted them for free?

AT LAST A RECORD CLUB WITH NO "OBLIGATIONS"—ONLY BENEFITS!

This is the way you want it—the only record and tape club in the world. Choose any LP or tape—include cartridges and cassettes—on any label...including new releases. Discounts are GUARANTEED AS HIGH AS 79%; No exceptions! Take as many, or few, or no records or tapes, including cartridges and cassettes, from any one label, or honor the list price of any label. There are no cards you must return and there are no membership fees. Every record and tape club ships order same day received! No waiting! Every record and tape club pays another club fee. There are no cards you must return and there are no membership fees.

How Can We Break All Record System Ships Order Same Day Received! Every record and tape club ships order same day received! No waiting! Every record and tape club pays another club fee. There are no cards you must return and there are no membership fees.

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World’s largest Master Catalog of available LPs from which to choose! Lists over 15,000 available LPs on all major Classical—Popular—Jazz—Folk—Broadway & Hollywood soundtracks—Spoken Word—Rock and Roll—Comedy—Rhythm & Blues—Country—Western—Dancing—Listening—Mood...No Exceptions! Master Tape Catalog of available cartridges, cassettes and reel-to-reel tapes on request at no extra membership fee.

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FREE Giant Master Catalog—lists available LP’s of all labels! Over 15,000 listings! Also, FREE Master Catalog of Tapes on request.
Music and Astrology

To me, a Sun-in-Gemini, your July "zodiacal-slanted" issue was unique. Robert Offergeld's article and his collaboration with Eleanor Bach in astro-musicology were fine. But what authority did you tap for your cover zodiac? The sign order is correct (Aries as number one, Taurus number two, etc.), except that the zodiac runs the wrong way—clockwise instead of the opposite. The correct flat or "solar" map orients from the first point of spring (March 21); Aries at 9 o'clock with the map imagined as a clock face, Taurus at 8 o'clock, and so forth.

Some ancient zodiacs did align differently, for some reason. If we believe Immanuel Velikovsky (cf. his If All the Waves Were Colossus) and others, notably "occult" historians, the earth's axis has shifted once or more. Sometimes there's confusion over the relation between signs and constellations. The two zodiacs were synchronous, or the same from a manadane standpoint, at the time of Christ, but since then, because of the "precession of the equinoxes," they have gradually separated, and are now almost a sign—50 degrees—apart.

Ben Allen Fiedes
Richmond, Va.

Reader Fields has read the signs aright; our retrograde zodiac is indeed an old one, a woodcut from Nicolas Le Rouge's book Le Grant Kalandrier et Compost de Bergieres printed in Troyes in 1496.

May I add a P.S. to Robert Offergeld's interesting article about music and astrology? In addition to those composers cited, the following have had their imaginations sparked by the signs of the stars: Chabrier, in his opera L'Etoile, which was recently performed in New York in English with the title Horoscope; Franz Reizenstein (b. 1911), in The Zodiac, twelve pieces for piano solo; and Georges Mignon's Le Zodiac, twelve études de concert for piano.

Donald M. Garvelmann
Bronx, N. Y.

Wattage Incredible

I very much enjoyed Peter Sutheim's article "Wattage Confidential!" (July). It appears, however, that he missed a few tricks in just blowing up a twelve-watt (average sine-wave power per channel) to a "150-watt" amplifier. I read in Consumer Reports for June 1969 that radio-phonograph console manufacturers do considerably better: one in particular claims 500 watts for an amplifier that Consumers Union would rate at nine watts! The exact conditions weren't specified, but CU figures should certainly be reliable.

James N. Francis
Riverside, Cal.

The factor that was not covered in Mr. Sutheim's article was that of prevarication pure and simple.

Broadcasting Deficiencies

Count me as one who is in agreement with Mr. Paul Tartell's letter in your July issue. As an enjoyer of fine music, and as a technician in charge of a small-market FM station, I find most broadcast music really disgusting.

On-the-air sloppiness results from several deficiencies. First, maintenance of the broadcast equipment is inadequate in many stations, because the technician does not have the knowledge, time, or motivation to do the job. Second, instruction of operating personnel does not fill the bill. Third, obsolescence of broadcast equipment itself is unforgivable, but a fact of everyday life. Many stations, including good-music FM outlets, use tape recorders designed in Germany twenty-five years ago, and turntables constructed for monophonic AM service over twenty years ago.

Convincing the station manager to change his maintenance or instruction policies is an easy task: all he has to do is to tell a member of the staff to shape up. Persuading him to buy new equipment is next to impossible. But all three areas must be upgraded, or broadcast music will not climb out of its rut for many years to come.

Robert Davis
Station KOFO-AM/ FM
Ottawa, Kan.

Camp, Corn, Nostalgia

William Anderson's editorial titled "Camp, Corn, and Nostalgia" in the June issue really upset me, and made me wonder about his musical credentials and listening background. His comments on the Philips album "If Glenn Miller Played the Hirs" (Continued on page 8)
When Realistic* builds a receiver to sell for 269.95 you expect 90 watts: you get 140. You expect a feature nobody else has: you get 6. You bet your sweet ad agency the Audio Establishment has a right to be worried!

The cabinet is included at our price. It is made of wood. It is not made of metal or plastic. It does not cost you $29.95 extra! Flip-Levers* (8 of them). Slim and long, not stubby and short. Positive action, not pushbutton dubious or slide-switch flimsy. Aside from their grand design, our Flip-Levers have a "touch appeal" that's almost erotic!

Two meters for FM tuning. One for AM. Two is one more than competition has. How come?

Three tone controls: treble, bass, and mid. Anybody can hear the difference. But only Realistic* gives it to you! Maybe that's why The Shack* is the biggest audio dealer in the country?

Push-push AC button. We just plain hate to put the power switch on a one or volume control.

Glide-Path* volume controls give you visible level and a big "plus" we call Perfect Loudness Control. You get the correct compensation at every volume setting. P-L-C is our invention, an audible bonus, a real advance—not a gimmick. Only the STA-123 has it.

FIRST THE PRICE — $269.95. Then the power — 140 watts at 8 ohms. So now you know you're looking at the biggest value in stereo ever offered to serious music lovers. Radio Shack's million-customer Realistic line is the distillation of 46 years in electronics, of thinking about music reproduction, of designing equipment to sound a certain way. The STA-120 receiver is the best piece of gear we've ever built. Wideband AM. FET stereo FM. All the "me too" features and a whole host of "me only" innovations. Another good thing: we service what we sell, in 46 states, with original parts. Probably nobody (but nobody!) else in the USA can make and substantiate the above claims. Radio Shack Q.A.—Quality Assurance—makes Realistic a better buy.

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*Trade Mark
Quality stereo in high gear. Shift up to the sound of the Blaupunkt Frankfurt stereo car radio, and enjoy the ultimate in stereo sound tailored to your individual taste. It's an automobile radio that combines AM/FM stereo with convenient push-buttons, and blends beautifully into the instrument panel. Get the details on the complete line of Blaupunkt car radios and auto/portables. See your Blaupunkt dealer or write to Robert Bosch Corporation, 2800 South 25th Avenue, Broadview, Illinois 60153. New York • Chicago • San Francisco

CIRCLE NO. 11 ON READER SERVICE CARD

Today"—to wit, its "corny Glenn Miller orchestrations"—are 'way off base.

The Philips album is a literal re-creation of the Glenn Miller style as applied to today’s pop tunes—and there is nothing campy or corny about that style, as any well-trained musician will tell you. The unique Miller tonal timbres stand the test of time very well; there are dozens of Miller albums in the Schwann catalog, and RCA keeps re-issuing thirty-year-old Miller sides and air-checks. Thirty years from now, I doubt that they'll be reissuing the adolescent yowlings of the Incredible String Band, to which STEREO REVIEW devoted over a full page in the same issue Mr. Anderson saw fit to knock Glenn Miller.

JOHN LISSNER
New York, N.Y.

The Editor replies: "Mr. Lissner (sigh) has gone off half cocked. If he will reread my editorial he will find that I have a real affection for the Glenn Miller sound, though it is admittedly nostalgic. Far be it from me to lay down levels of camp and grades of corn for other listeners, but in truth, Glenn Miller was as much noise to no grandfather as the Incredible String Band is to Mr. Lissner. Fact is, as far as popular music goes, we are all somewhat prisoners of our separate generations, the sounds we like best being those we grew up to. If Mr. Lissner has any youngsters running around the house, let him try his unique Miller timbres on them, while they are rolling on the floor he may acquire some understanding of the generation gap. And thirty years from now (or less), his children will be trying to explain to theirs the unique timbres of the adolescent yowlings he finds so grotesque."

• William Anderson's editorial "Camp, Corn, and Nostalgia" and Don Heckman's review of Decca's "Encyclopedia of Jazz" in your June issue revived memories of the "big-band era"—especially from 1937 to 1940, while I was an employee of a small Canadian radio station.

During that period, radio stations could rent from an organization known as "World Broadcasting System" a large selection of records covering most segments of the musical field. Known as "transcriptions," they were 33 1/3-rpm, vertical-cut, 18-inch-diameter acetate records ( groove size may have been 0.001 ). The early versions were opaque; later they were translucent. These surpassed by a wide margin the range and all-around quality of the then shellac 78's. Played with a special Western Electric head equipped with a diamond, the records were entirely free of needle scratch.

We were very fond of our "transcriptions," and we used them as often as possible, especially if jazz, swing, or other popular music was involved. It was also during that time that Decca started to enforce their "broadcasting prohibited" policy. We had a fair-size "discotheque" of 78's: Victor, Blue Bird, Parlophone, English Columbia, Brunswick, and Polydor. But these could not be played on the air from 7:30 p.m. until midnight, because of some quirk in the Canadian broadcasting laws.

However, we soon discovered that WBS had under its wing a fair chunk of bands, and the selections already recorded by Decca. They appeared to be "augmented" bands (Continued on page 12)
You may have already WON a fabulous prize in the giant Longines Symphonette INCOME FOR LIFE SWEEPSSTAKES! 101 fantastic "Incomes for Life" are reserved for lucky winners! You may receive $100.00 a month for life... $500.00 a year for life... $250.00 a year for life... or $100.00 a year for life! See attached card for your personal Lucky Number which may already be a winner!

NOW—NOMINATE YOUR FAVORITE RECORD FOR THESE GOLD MEDAL AWARDS

For the first time... you nominate and vote for the artist, orchestra and record you believe to be the best of the year! And... at the same time SAVE up to 55% on every record you'll ever want to buy!

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To make certain you are familiar with special artists and performances eligible for award, you will receive magnificent Award Audition recordings (not more than 4 each year) to evaluate without obligation. If you wish, purchase your exclusive copy at a fraction of the retail value. You will also receive absolutely FREE, a fascinating quarterly "Insider's Newsletter" to keep you informed of events in the world of music.

You'll contribute your remarks and personal nominations on a confidential ballot... your vote counts! But that's not all the good news in store from Citadel... The new Citadel Record Club gives you any record, any artist, any label at savings up to 55% off manufacturer's list price. No obligation to buy any records • Free Record Bonus Certificates • Jet Speed Service • See Details Below!

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ANY RECORD, ANY ARTIST, ANY LABEL, ANY KIND OF MUSIC YOU PREFER... you name it, and if it's in print, you have it at a guaranteed 35% off manufacturer's list price (often as high as 55%). This even includes imported labels and hard-to-find specialties.

You ARE NOT REQUIRED TO BUY ANY RECORDS AT ALL! Buy as many or as few records as you need—records of your choice!

SWEETSTAKES RULES... The Citadel Record Club has reserved the described gifts for holders of certain pre-selected lucky numbers, under direction of an independent judging organization. Each number will be checked against the official list. Employees of Citadel Record Club, media suppliers and people under 21 years of age are not eligible. Your entry must list the number printed on the card. Entries must be received by March 31, 1970. If you do not want to accept the membership offer you can still enter the sweepstakes by printing your name and address in the upper left-hand corner of return address card and mailing it. DO NOT complete the side of the post card containing your lucky number.

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CIRCLE NO. 14 ON READER SERVICE CARD

SEPTEMBER 1969
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*Longines start at $75; Automatics sold & serviced in ISC countries around the world.

Lieder
- I enjoyed Robert S. Clark's article "A Basic Library of German Lieder" (June) so much that I had to write to you. I'm sure there are many people who are very much in the dark where the art song is concerned. I am just coming to full appreciation of these little gems. I found the article so comprehensive that I would like Mr. Clark to do the same for French art songs.

Robert E. Lyons Pittsburgh, Pa.

Whose Blues?
- It seems very easy for Don Heckman to criticize British blues groups for imitation because they are "white," not "black," and to say they can't have soul because they have not suffered like the blacks have. Mr. Heckman forgets that it was these same British groups who were largely responsible for bringing blues into the pop world, as no one else has done before, and opening doors so that today's generation could rediscover the pioneers in the field.

I am disgusted when I hear of blacks criticizing and snubbing talented people like the 5th Dimension because they sound too "white." I am equally surprised when talents like Janis Joplin or Tracy Nelson are verbally attacked for singing "black." I for one am sick and tired of having color imposed as some kind of absolute condition upon the music and musicians of today. Today the only precept for popular music is truth and honesty. Whatever an artist does, it must be done without pretense, deception, or hypocrisy. I have seen and heard Fleetwood Mac, which Mr. Heckman blasted in the June issue; they are true and honest, and have a much more serious objective than to imitate.

Mark Schumaker Oak Lawn, Ill.

Mr. Heckman replies: "I keep getting letters about my views on black blues and white performers. Let me try to explain. First, the word blues describes a specific musical form as well as a less well defined stylistic manner. Some musicians use the blues form without attempting to simulate the blues style as it has developed in American black culture. Examples in jazz might include Paul Desmond/Dave Brubeck, Bix Beiderbecke, and Lee Konitz; in pop music, Andy Williams or Frank Sinatra. In rock, the situation is more blurred because the music is a hybrid form which combines elements of rhythm-and-blues with elements of country-and-western music. It is more influenced, therefore, by the stylistic elements of black blues; even so, such groups as the Association, Jefferson Airplane (most of the time), the Incredible String Band, and the Mothers of Invention (variably) are not principally affected by black music.

"Second: one should remember to keep things in perspective. The history of white exploitation of black entertainemnt elements is lengthy, going back at least as far as the minstrel shows of the mid-nineteenth century, and involving such things as 'coon songs.'

"Third: in point of fact, I don't give a damn if groups like Fleetwood Mac want to imitate every inflection and every sliding note that Muddy Waters or Memphis Slim or whoever has used. We had blues groups in the 1920's and 1930's that Fleetwood Mac, and groups like it, make considerably more money with their imitations than Muddy Waters or Memphis Slim do with the originals. And please ignore me the garbage about the 'rediscovery of the pioneers in the field.' Rediscovery by whom? They've been around all the time, Mr. Schumaker; you just haven't been listening. Suggesting that black performers should be satisfied with the spin-off popularity that might come from the success of white performers (performing black music) would probably even cause laughter at the weekly meeting of the N.A.A.C.P. No matter how much lip service is paid to the contrary—or on the part of both performers and listeners like Mr. Schumaker—we are dealing with exploitation, pure and simple. That's it, exploitation. Not inspiration, not respect, exploitation.

"Finally, I have written about a few white performers—a very few—like Paul Butterfield and (sometimes) John Fogerty, and, of course, any white players, who have used the blues style in their music. It's only fair to mention Elvis Presley's version of Willie Mae Thornton's Hound Dog? But I detect a new strength of it in the English blues 'renaissance.'"
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Every Week for a Whole Year.

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A club so NEW IN CONCEPT and DESIGN that we ask your help in naming it. What’s more, we’re willing to pay you for that help. Send us a Name and we’ll give you $3 off the Regular Lifetime Membership price of $5 and a chance for the big prize. If you’re not a gambler here’s a sure thing. We’re willing to offer Charter Club Membership for the same low introductory price. ALL YOU EVER PAY IS $2.

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CIRCLE NO. 56 ON READER SERVICE CARD
STEP UP

to the finest automatic turntable in the world! ELPA'S

PE-2020

Your records are cut by a stylus with a 15° vertical tracking angle. Play them back the same way for optimum fidelity. The ELPA PE-2020 is the only automatic turntable especially designed to track a stack at 15°!

If you're settling for less than the PE-2020 you're making do with less! ELPA PE-2020 $129.95 less base

Endorsed by Elpa because it successfully meets the stringent standards of performance Elpa demands. Write for full PE details.

CIRCLE NO. 29 ON READER SERVICE CARD

Copyrighting Bach

The June review by William Flanagan of Barber's Knoxville and Antony and Cleopatra excerpts is typical of Mr. Flanagan's writing. In the last paragraph he states—referring to the latter work—that I am neither willing nor able to evaluate extended operatic excerpts with no knowledge of their larger musico-dramatic context . . . . I have no comment.

A responsible editor should not allow Mr. Flanagan to review a work on which he is not capable of doing a good job. I feel almost cheated by reviews of this type.

I have been reading and copying your magazine for several years, but reviews like this one make me wonder whether I should renew my subscription.

RENF J. SMITH
Richmond, Va.

Mr. Flanagan replies: "I am sorry that ravers from a critic could leave any reader with a sense of having been cheated. It is perhaps a curiosity of temperament, but I feel cheated only when a critic conceals limitations and prejudices. Heaven knows, it's easy enough to do, and there are plenty of working critics of all the arts who do so masterfully. Since every great critic has had limitations and prejudices, I am most mistrustful of the opinions of a critic who, over a reasonable period of time, appears to have neither.

"This consideration apart, turning to my 'non-review' if you like, of the Antony and Cleopatra excerpts, I believe that the presentation of operatic excerpts out of their musico-dramatic context is a practice that compromises the integrity of the work of art from which the excerpts are derived. As for reviewing excerpts per se, I believe it to be as meaningless as it would be to review only arbitrary scenes from a play, chapters from a novel, or stanzas from a poem. Having made it clear that the vague impression (for me, the only possible kind) made by these excerpts was unencouraging, I felt I would diminish the effect of my recommendation of the extraordinary and brilliant recording of Knoxville by dwelling on a reaction which, by aesthetic conviction, I mistrusted in myself."

Knoxville

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RENF J. SMITH
Richmond, Va.
IF YOU REALLY VALUE YOUR RECORDS DON'T UNDERRATE THE GRAM!

(a... a commentary on the critical role of tracking forces in evaluating trackability and trackability claims)

TRACKABILITY:
The "secret" of High Trackability is to enable the stylus tip to follow the hyper-complex record groove up to and beyond the theoretical cutting limits of modern recordings—not only at select and discrete frequencies, but across the entire audible spectrum—and at light tracking forces that are below both the threshold of audible record wear and excessive stylus tip wear.

The key parameter is "AT LIGHT TRACKING FORCES!!"

A general rule covering trackability is: the higher the tracking force, the greater the ability of the stylus to stay in the groove. Unfortunately, at higher forces you are trading trackability for trouble. At a glance, the difference between ¼ gram and 1, ½, or 2 grams may not appear significant. You could not possibly detect the difference by touch. But your record can! And so can the stylus!

TRACKING FORCES:

Perhaps it will help your visualization of the forces involved to translate "grams" to actual pounds per square inch of pressure on the record groove. For example, using ¼ gram of force as a reference (with a .2 mil x .7 mil radius elliptical stylus) means that 60,000 lbs. (30 tons) per square inch is the resultant pressure on the groove walls. At one gram, this increases to 68,000 lbs. per square inch, an increase of three tons per square inch—and at ½ grams, the force rises to 75,000 lbs. per square inch, an increase of 7½ tons per square inch. At two grams, or 83,000 lbs. per square inch, 11½ tons per square inch have been added over the ¼ gram force. At 2½ grams, or 88,000 lbs. per square inch, a whopping 17 tons per square inch have been added!

The table below indicates the tracking force in grams and pounds, ranging from ¼ gram to 2½ grams—plus their respective resultant pressures in pounds per square inch.

<table>
<thead>
<tr>
<th>TRACKING FORCE</th>
<th>POUNDS</th>
<th>POUNDS PER SQUARE INCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>¼</td>
<td>.0017</td>
<td>60,000</td>
</tr>
<tr>
<td>1</td>
<td>.0022</td>
<td>66,000 +10% (over ¼ gram)</td>
</tr>
<tr>
<td>½</td>
<td>.0033</td>
<td>75,000 +25% (over ¼ gram)</td>
</tr>
<tr>
<td>2</td>
<td>.0044</td>
<td>83,000 +38% (over ¼ gram)</td>
</tr>
<tr>
<td>2½</td>
<td>.0055</td>
<td>88,000 +47% (over ¼ gram)</td>
</tr>
</tbody>
</table>

SPECIAL NOTE:
The Shure V-15 Type II "Super-Track" Cartridge is capable of tracking the majority of records at 3/4 gram; however state-of-the-art advances in the recording industry have brought about a growing number of records which require 1 gram tracking force in order to fully capture the expanded dynamic range of the recorded material. (¾ gram tracking requires not only a cartridge capable of effectively tracking at ⅛ gram, but also a high quality manual arm [such as the Shure-SME] or a high quality automatic turntable arm capable of tracking at ¼ gram.)

TESTS:
Our tests, and the tests of many independent authorities (see Note No. 2), have indicated two main points:

A. At tracking forces over 2 or 2½ grams, vinylite record wear is dramatically increased. Much of the "high fidelity" is shaved off of the record groove walls at both high and low ends after a relatively few playings.

B. At tracking forces over 1½ grams, stylus wear is increased to a marked degree. When the stylus is worn, the chisel-like edges not only damage the record grooves—but tracking distortion over 3000 Hz by a worn stylus on a brand new record is so gross that many instrumental sounds become a burlesque of themselves. Also, stylus replacements are required much more frequently. The chart below indicates how stylus tip life increased exponentially between 1½ and ¾ grams—and this substantial increase in stylus life significantly extends the life of your records.

RELATIVE AVERAGE TIP LIFE VS. TRACKING FORCE

No cartridge that we have tested (and we have repeatedly tested random off-the-dealer-shelf samples of all makes and many models of cartridges) can equal the Shure V-15 Type II in fulfilling all of the requirements of a High Trackability cartridge—both initially and after prolonged testing, especially at record-stylus saving low tracking forces. In fact, our next-to-best cartridges—the lower cost M91 Series—are comparable to, or superior to, any other cartridge tested in meeting all these trackability requirements, regardless of price.

NOTES:
1. From calculations for an elliptical stylus with .2 mil x .7 mil radius contact points, using the Hertzian equation for indentors.
2. See HiFi/Stereo Review, October 1968; High Fidelity, November 1968; Shure has conducted over 10,000 hours of wear tests.

V-15 TYPE II
SUPER-TRACK HIGH FIDELITY PHONOGRAPH CARTRIDGE

Write: Shure Brothers, Inc., 222 Hartrey Avenue, Evanston, Illinois 60204

CIRCLE NO. 57 ON READER SERVICE CARD
NEW PRODUCTS
A ROUNDPUP OF THE LATEST HIGH-FIDELITY EQUIPMENT

Scott's new Model Q-100 'Quad-rane' speaker system is a two-way, six-driver design with an omnidirectional polar response. A 3-inch soft-cone mid-range/tweeter is mounted on each of the enclosure's four sides in individual chambers. An 8-inch air-suspension woofer is mounted on two sides of the enclosure. The crossover frequency is 2,000 Hz (using a 12-dB-per-octave network), and the overall frequency response is 38 to 20,000 Hz. A tweeter-level control is provided. System impedance is 6 to 8 ohms, and maximum power-handling capacity is 80 watts program material. Minimum recommended amplifier power is 10 watts. The walnut enclosure measures 22 x 147/8 x 11/4 inches. Price: $199.95.

Circle 147 on reader service card

Lear Jet has introduced the Model A-50 'Jet 8' stereo eight-track tape cartridge player. Specifications of the unit include wow and flutter of less than 0.35 per cent and an output power (continuous) of 4 watts per channel. Program switching is automatic, with a pushbutton provided for manual track switching when desired. There is an illuminated indicator to show which pair of stereo tracks is being played. The controls include volume, balance, and tone. The player is meant for installation in cars having a 12-volt, negative-ground electrical system. Dimensions of the unit are 7 x 61/2 x 3 inches. Suggested list price: $59.95.

Circle 148 on reader service card

Qatron is marketing an automatic changer for eight-track stereo tape cartridges that is available in models for both home and car. The changer's removable magazine accommodates as many as twelve cartridges, which are cycled through the playback process by a mechanism similar to that used in an automatic film-slide projector. Three automatic-play sequences can be activated: all tapes played in sequence; all first channels played, followed by all second channels; and a single, selected tape endlessly repeated. The changer can also be operated manually.

The Qatron home unit, Model 48H (shown), is finished in oiled walnut. Matching speakers are available for the unit, or its preamplifier outputs can be connected to the high-level inputs of a stereo system. The mobile version (Model 48A) is designed to be placed in an automobile trunk and is controlled from a dashboard panel. Qatron rates the audio output power as 24 watts peak and the frequency response as 50 to 15,000 Hz ±3 dB for both models. Total harmonic distortion at 5 watts is less than 1 per cent; signal-to-noise ratio is 50 dB; flutter is less than 0.25 per cent. The change cycle between adjacent cartridges takes two seconds.

The controls on the Model 48 are tape selector, program mode, volume, tone, balance, and magazine release. Dimensions for both versions are approximately 16 x 9 x 173/4 inches. The Model 48H costs $269.95. Speakers for home use are $64 the pair; for automobile use, $21 the pair. Extra tape magazines: $9.95 each.

Circle 149 on reader service card

Ampex has expanded its line of portable cassette recorders with its smallest unit yet, the Micro 7. The unit measures 61/2 x 3 x 2 inches, weighs less than two pounds, and is powered by three "AA" penlite cells. It has a built-in 2-inch speaker. The controls include fast-forward, rewind, play, record, volume, and cassette-eject. There is a recording-level meter that also serves as a battery-condition indicator. The unit has an automatic recording-level circuit. Price, including a leatherette carrying case, microphone with on/off switch, an earphone, and a blank cassette: $89.90. An optional a.c. adaptor is available for $9.95.

Circle 150 on reader service card

Kenwood has brought out the Model KC-6060, a component-styled oscilloscope intended for use with a stereo system. The unit is designed for audio-amplifier testing as well as FM tuning and antenna orientation for minimum multipath distortion. The unit also has a built-in 1,000-Hz audio oscillator that provides the signal for the various tests and oscilloscope calibration.

The oscilloscope, which has solid-state amplifiers, has a frequency response of 3 Hz to 200 kHz. The cathode-ray tube has a 3-inch screen. All trace position controls are of the straight-line sliding type. Besides the usual oscilloscope controls, there is a selector switch with positions for test, left- and right-channel wave forms, stereo display, and FM multipath. Audio inputs on the front or rear panels are selected by a two-position switch. A "spot-killer" circuit protects the tube phosphor when there is no modulating signal. The KC-6060 comes with walnut side panels and is compatible in size and styling with other Kenwood components. Overall dimensions are 167/8 x 91/2 x 111/2 inches. Price: $199.95.

Circle 151 on reader service card

Panasonic is importing a new line of AM/stereo FM receivers that includes the low-cost Model SA-10. The SA-10 has an IFH music-power output of 40 watts at 8 ohms (35 watts at 4 ohms) and a continuous power output of 12 watts per channel into 8 ohms. Harmonic distortion is 0.8 per cent and intermodulation distortion is 1.2 per cent (Continued on page 24)
Here's an easy and convenient way for you to get additional information about products advertised or mentioned editorially in this issue. Just follow the directions below, and the literature will be sent to you promptly and free of charge.

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Stereo Review's Free Information Service can help you select everything for your music system without leaving your home.

By simply following the directions on the reverse side of this page you will receive the answers to all your questions about planning and purchasing records, tapes and stereo systems: how much to spend, what components to buy first—and from whom; which records are outstanding and worthy of a spot in your music library; how to get more out of your present audio system; which turntable...cartridge...tuner...headphone...loudspeaker...etc., will go with your system. All this and much more.
JVC Introduces
the first automatic changers
that give you a little more
speaker system.

Connect any one of these three automatic changers to your stereo system and you’re ready for some of the finest music listening you’ve ever heard.

Finest, because the amount of money you save on a JVC changer can go toward buying one of the better speaker systems. And no matter how much you spend on your components, you’re always better over-spending on a good speaker system. (Like the JVC 5303 omni-directional system.)

Nice thing about JVC changers is that they’ll compare favorably up and down the specifications chart with changers costing much more. Go on and compare.

Model 5204 is a unique mini-changer that goes a long way toward getting a better speaker system. It handles up to six records, offers four accurate speeds and houses a long-wearing diamond stylus in a sensitive ceramic cartridge.

Model 5201 has a 4-pole outer rotor motor and die cast 11-inch turntable platter, a moving magnetic type cartridge and diamond stylus, plus four accurate speeds.

But for an even bigger bonus, choose Model 6102. You get your automatic changer, your diamond stylus, four speeds, and, an 8-track stereo cartridge tape player, too. This unit switches over automatically from phono to tape when a cartridge is inserted.

For a full range of home entertainment products that really are different, the man to see is the dealer handling the JVC line. He can show you portable television receivers, tape recorders, radios, a very complete line. He can even show you the perfect speaker system to match the perfect changer.

Ours.
NEW PRODUCTS
A ROUNDUP OF THE LATEST HIGH-FIDELITY EQUIPMENT

cent at rated output. The IHF power bandwidth is 20 to 50,000 Hz. Hum and noise are -60 dB at the low-level phone inputs and -70 dB at the auxiliary inputs. Frequency response is 30 to 20,000 Hz ± 5 dB. Rocker switchess activate the loudness compensator and high-frequency filter, select mono or stereo mode, and permit tape monitoring. Two multi-position rotary switches select the inputs and speakers and turn the unit on and off. Bass, treble, volume, and balance are adjusted by slide controls.

The FM-tuner section of the SA-10 has a sensitivity of 2.8 microvolts (IHF) and a capture ratio of 3 dB. Harmonic distortion is 0.7 per cent, signal-to-noise ratio is 60 dB. The SA-10 has overall dimensions of 16 x 5 x 11 inches. Price: $229.95.

Circle 152 on reader service card

Sansui's new Model SP-1001 three-way speaker system has separate input terminals for use with electronic-crossover amplifier setups as well as terminals for conventional amplifiers. These latter terminals connect to a 12-dB-per-octave inductance/capacitance network with crossover points at 600 and 5,000 Hz. Separate mid-range and tweeter-level controls cover a 12-dB range in four 3-dB steps. The walnut enclosure of the Model SP-1001 houses a 10-inch woofer, 6½-inch mid-range, and a 1-inch domed tweeter. Frequency response is 35 to 20,000 Hz, input impedance is 8 ohms, and power-handling capacity is 40 watts. Dimensions of the enclosure are 11 x 2½ x 12 inches; the grille is hand-carved. Price: $139.95.

Circle 153 on reader service card

Shure has introduced the Model M68RM microphone mixer, a unit similar to the previously introduced Model M68 but incorporating adjustable reverberation. The M68RM is fully transistorized and has four microphone input channels, each with an individual level control and a slide switch that selects high or low (250 ohms) input impedance. One of the channels can serve as an auxiliary high-level input that will accept signals from a ceramic phono cartridge, tape recorder, or tuner. A master volume control simultaneously adjusts the gain of all inputs.

Frequency response of the M68RM is ± 3 dB from 40 to 20,000 Hz. Total harmonic distortion is less than 1 per cent for a 1-volt output at 1,000 Hz. There is a jack for a remote power switch and provision for stacking two or more mixers. Optional accessories include a battery power supply, locking panel, rack panel kit, and stacking kit. List price of the M68RM is $180.

Circle 154 on reader service card

Wollensak's new Model 6250 Sound Center Stereo Recorder is a three-speed (7½, 3½, and ⅞ ips), four-track stereo tape recorder that can serve as the control center for a stereo system. The machine has three heads and separate recording and playback amplifiers to permit off-the-tape monitoring. Two speakers are built into the case, and low-impedance microphones are supplied.

The frequency response of the Model 6250 is 40 to 20,000 Hz at 7½ ips and 40 to 12,000 Hz at 3½ ips—both at ± 2 dB. At ⅞ ips, the response is 10 to 12,000 Hz ± 3 dB. The drive system uses two motors. Wow and flutter are 0.12 per cent at 7½ ips, 0.2 per cent at 3½ ips, and 0.3 per cent at ⅞ ips. Signal-to-noise ratio is 54 dB and the audio amplifiers have a combined power output of 50 watts (rms). There are provisions for mixing and adding reverberation. Controls include a tape-monitor switch and an input selector switch with positions for low-impedance microphones, magnetic phono cartridge, tuner, and auxiliary. There are separate controls for record level (for each channel), volume, balance, treble, and bass. A two-position recording-bias selector switch provides optimum results for recording with low-noise tape at different speeds. Overall dimensions with cover are 20½ x 13½ x 7½ inches; weight is 25 pounds. Price: about $300. A tape deck version (Model 6150) costs about $230.

Circle 155 on reader service card

Koss has added two new models to its line of electrostatic-diaphragm stereo headphones. The Model ESP-7 (shown) and the Model ESP-9 both use an external self-energizer box to supply the necessary operating voltages and to serve as a loudspeaker/headphone switch. An indicator on the box lights when the signal from the headphones reaches average listening level.

The Model ESP-7 and the Model ESP-9 have fluid-filled ear cushions for isolation from outside noise. The ESP-7 is intended for home use and has a frequency response from 35 to 13,000 Hz ± 6 dB. Price: $79. Additional ESP-7 headphone sets without the energizer box are available for $59. The ESP-9, called a "studio monitor phone," has a response of 15 to 15,000 Hz ± 2 dB, and its energizer box can be plugged into an a.c. power line if desired. The ESP-9 sells for $150.

Circle 156 on reader service card

CIRCLE NO. 65 ON READER SERVICE CARD →
If you already own an earlier Dual automatic turntable, you’re equipped to really appreciate the new Dual 1209.

Because the 1209, just like your present Dual, offers flawless tracking and smooth, quiet performance that will be yours for years to come.

All Duals are made that way. And all recent ones have such exclusive features as pitch control that lets you “tune” your records by a semitone. No wonder so many hi-fi professionals use Duals in their personal stereo component systems.

But the 1209 does have some new refinements of more than passing interest:

its motor combines high starting torque with dead-accurate synchronous speed. Its anti-skating system is separately calibrated for elliptical and conical stylus types.

The tonearm counterbalance has a click-stop for every hundredth-gram adjustment. The cue control is farther front, for greater convenience. And the styling is very clean.

These refinements aren’t likely to seduce you away from your present Dual. They’re not intended to. But if you don’t already own a Dual, perhaps it’s time you talked with somebody who does.

And whether or not you own a Dual now, you might enjoy a look at our literature about the 1209, at $119.50, and about other Duals from $79.50.

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

The people most likely to appreciate the new Dual 1209 are the least likely to need one.
PICK OF THE RECEIVER CROP

TK-140X...FET, IC, Solid State, FM/AM, 200-Watt Stereo Receiver...$349.95

KR-100...FET, IC, Solid State, FM/AM, 140-Watt Stereo Receiver...$299.95
When you pick from the KENWOOD Tree you are sure to pick the finest. And KENWOOD's new stereo receivers certainly prove the point! Whichever one you choose, you will be getting top performance, top quality, and top value. That is because KENWOOD brings you the most carefully engineered, hand-crafted stereo components on the market today, with "extras" that set each model apart from the competition and give even the least expensive unit a mark of luxury. Throughout the world the KENWOOD Tree stands as a symbol of quality, dependability and fine stereo performance...so take your pick—and pick the finest!
**Hissy Hi-Fi**

Q. I find that on almost all my records there is a loud hissing noise when I play them at high volume. Why is this?

LARRY SCOREA

A. There are several possible sources for your trouble, the least likely of them being a chipped diamond or a bad stylus assembly in your cartridge. To check this, try substituting another cartridge and playing a new record. It is more likely, however, that you are simply hearing noise from the master tape that has been cut into the disc along with the music. At normal listening levels, this hiss should not be abrasive, but it will be if your amplifier's treble control or your speaker's high-frequency level control is turned up too high. Other possibilities are that the acoustics of your listening room are excessively live and tend to emphasize the higher frequencies. Or you may have a high-frequency peak in your speakers or phone cartridge. In other words, some hiss is more or less inherent in the disc-recording process, but there may be some specific fault in your system that is emphasizing it.

**Guitar Amplifier Taping**

Q. I am in charge of a recording studio and have encountered several problems in the feeding of a high-level signal from the 8-ohm speaker jack of a 40-watt guitar amplifier into the 000-ohm input of my studio recording console. Can you suggest a procedure that will enable me to get a good match at the input without deteriorating the signal?

FERNANDO AMENÁBAR
Santiago, Chile

A. The simplest way to get a recordable electrical signal out of the guitar amplifier would be to connect a 10-ohm, 50-watt wire-wound resistor (R1) to a phone plug and plug it into the amplifier's speaker jack. A 100-ohm, 5-watt wire-wound potentiometer should be wired across the resistor as shown. The signal to be recorded is taken off between the slider arm of the potentiometer (R2) and the side of R1 that goes to the ground of the amplifier. The amplifier gain control should be set somewhere below its normal position so that R2 delivers slightly more than the desired signal voltage at its maximum setting. The same hookup will also serve for connecting movie sound projectors to public-address systems.

However, before you get too involved in recording the electrical output of the guitar's amplifier system, you should be aware that a large part of the sound quality that rock groups strive for is a function of the acoustic output of the speaker. As far as I know, almost all recording studios record electric rock bands by placing microphones in front of their speakers rather than by picking up the electrical signal directly from their amplifiers' output terminals. The location of the microphones in relation to the volume of the speakers will have to be established individually, but in order to achieve a "live-performance" sound quality, the recording will almost certainly have to be done on an acoustical rather than an electrical basis.

**Tape-Head Changing**

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

LEWIS ANGELL
Fairfield, Calif.

A. It's possible, but not particularly practical. Since the cost of the heads in a high-quality machine account for a good chunk of its selling price, you may find that a set of superior replacements (assuming they are available) would cost perhaps just about what your older machine is worth on the secondhand market. In addition, the only specification that the heads could really enhance would be that of frequency response. Even with the new heads in place, you may find that your machine's wow, flutter and electrical noise prevent it from achieving the performance quality you seek.

**Timed Recording**

Q. In some of your Installations of the Month I have noticed that there is a timer that will automatically turn on a tape recorder so that a program can be recorded during the owner's absence. I would like to trade in my old recorder for a newer deck, but none of the ones I have looked at so far will enable me to have them turn on in the record mode. Do you have any suggestions, short of using solenoids, as to how to activate the record button?

ROBERT MILLER
Durham, N.C.

A. There are a few machines whose interlocks are so set up that there's no easy way to have them switch on while in the record mode. There are other machines that switch out of record when turned off by their front-panel controls, but if you set them to the record function and then remove the a.c. line-cord plug from the socket, they will start up in record when plugged in again. You can check this simply enough, and if a machine will start in record, then it can be activated by a time clock. There are one or two solenoid-operated machines that can be adapted for use with a timer but only by means of internal rewiring. You might check with the manufacturer as to whether external remote-control units are available that could be easily adapted to automatic timing.

**Record Warping**

Q. As recommended, I store my records vertically and away from any source of heat, yet they still warp. How can I prevent this?

MICHAEL GOELSTEN
Bethpage, N.Y.

A. I would suggest that you not only store your records vertically but in some sort of a casing or holder that puts a firm pressure on both sides of the disc. Record cases, such as those sold by STEREO REVIEW, will serve well, providing that the records are facedly, but not tightly, packed in the case. Pieces of corrugated cardboard can be added to fill where needed. With the thinner discs (a penny saved on vinyl is a penny earned) the problem can be severe.

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**Record Warping**

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You may not have the trained ear of a Sunny Meyer. But you can hear the difference when you play Ampex home recording tapes. One reason for the quality is that Ampex audio tape is made in the same modern facility as all Ampex professional tape. This adherence to professional standards shows up in clean, pure recorded sound.

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It's nice to know that the people who pioneered tape recording are available to help you with your tape needs as well. For a complete tape catalog, call or write: Ampex Corp., Magnetic Tape Div., 401 Broadway, Redwood City, Calif. 94063
I"IAYBE your stereo system is all it's cracked up to be. Or maybe it's just cracked up. A simple way to assess the quality and condition of your system is by means of a test record. Such a disc can reveal—for better or worse—basic merits and shortcomings of your system and help you make corrective adjustments to bring out its best. No test record, to be sure, encompasses all the complex, subtle factors that enter into the reproduction of musical sound. Yet, unlike musical recordings, these discs provide a fixed standard against which your system's record-playing performance can be evaluated.

Test records used to fall within two mutually exclusive categories. One kind was intended mainly as a laboratory tool, requiring test instruments for interpreting the results. The other kind was designed for home use, and the only test instrument needed was a pair of attentive ears. Lately, by the efforts of this magazine, the two types have been happily wedded in the SR-12 test record included in Stereo Review (priced at $4.98). Combining both aural and instrument checks, this disc can be used by rank and not-so-rank amateurs for ears-only evaluations, or by advanced hobbyists and technicians for more elaborate instrument tests. By far the most comprehensive of currently available test records, the SR-12 offers a total of twenty tests, including separate overall frequency-response checks for each channel and tests for stereo separation, cartridge tracking, channel balance, stereo spread, speaker phasing, hum, turntable rumble and flutter, and tone-arm anti-skating adjustment. Instrument tests include IM distortion, transient response, and cartridge frequency response. Those lacking instruments can skip the tests that require them and still get a revealing and accurate performance profile of their systems by ear only.

Despite the laudable clarity of the explanatory notes accompanying the record, the SR-12 is not, however, a simple disc to use. It requires concentrated attention and careful reading of the notes. Listeners wanting a more casual checkout of their systems may feel more at home with the less technical approach nicely realized on C.B.S. Labs' "Seven Steps to Better Listening" (STR-101, which can be ordered from record stores for $4.79). This test record puts the accent on speed and simplicity, and although it's not as comprehensive and versatile as the SR-12, it shares some of that disc's more ingenious features. Among these is a method of judging response at various frequencies by comparing a test tone with an immediately preceding reference tone. If both tones seem equally loud to the ear, it indicates flat frequency response. In effect, the reference tone "calibrates" the ear, compensating for the ear's poor memory by giving it a constant reference point, and making the ear-check of frequency response almost as accurate as the instrument check. Another clever device on both discs is the use of a warble tone rather than a steady note for frequency tests. The rapid alternation of frequencies in the warbling sound helps minimize the activation of room resonances or standing waves that might throw off the listener's judgment.

The SR-12 and the STR-101 mark a noteworthy departure from other entries in this field and represent valuable aids to listeners critically concerned about the performance of their sound systems.
QUICK-CHANGE!

We call our new Marantz Model 25 AM-FM stereo receiver/compact the "quick-change artist" because it does just that—converts quickly and easily from a quality Marantz receiver to a space-saving record player/receiver combination.

The Marantz Model 25 starts out as a full-fledged AM-FM stereo receiver with 30 watts RMS per channel continuous power. (That's comparable to 90 watts IHF music power the way other manufacturers rate equipment!) Then, any time you're ready, you can add on your favorite-model Dual, Garrard, or Miracord record changer.

And to make the conversion a cinch, the Model 25 comes complete with free...
do-it-yourself templates so you can cut out the cabinet top. Or, if you prefer, your Marantz dealer can supply you with a precut top. Either way, simply drop in your favorite record changer and... Voilá!

As in our most expensive stereo components, the Model 25 gives you a multitude of Marantz-quality sophisticated features. For example, super-smooth Gyro-Touch* tuning—a marvel of design that lets you rotate the actual tuning flywheel. Circuits built to rigid military specifications—utilizing such state-of-the-art refinements as field-effect transistors and integrated circuits. And Variable-Overlap Drive**—a Marantz exclusive that reacts instantly to prevent overloads under any conditions, completely protecting both power amplifier and speakers at all times.

No wonder the sound and specs of the Marantz Model 25 are so impressive. After all, it is a Marantz, crafted by the pioneers of the world's finest and most-expensive audio components. Components sold almost exclusively to engineers, professional musicians, and serious hobbyists. Now this masterful Marantz performance is available at a popular price: only $329—extraordinarily little for an extraordinary instrument.

So see your franchised Marantz dealer soon and ask him about the new Marantz Model 25 receiver/compact. Listen for awhile. Then let your ears make up your mind.

-- MARIAN F. INC. 6938 MARANTZ IS A SUBSIDIARY OF SUPERSCOPE INC.

*Patented. **Patent Pending.
Although Acoustic Research components were designed for home use, they are often chosen for critical professional applications.

Despite decades of experimentation, the manner in which ear and brain process auditory data to sense the direction of a source of sound is still unknown. A new and comprehensive series of experiments now being carried out by researchers at Columbia University may bring us closer to the answer. Under the supervision of Professor Eugene Galanter of the university’s Department of Psychology, John Molino and other workers are using elaborate instrumentation to generate precisely controlled signals to synthesize spatial sensations for listeners. Tests are carried out both indoors and outdoors, necessitating the attachment of wheels to much of the equipment. Part of the apparatus used consists of a "mobilized" AR-3a at lower left in the photograph above, two AR amplifiers (at the bottom of the racks on the table at right), and fifteen mid-range speakers of the type used in the AR-3a. The AR-3a is especially suited to applications of this kind since the uniformity of radiation provides very smooth frequency response on-axis, off-axis, outdoors or in a reverberant room.

Write for a free catalog listing AR speaker systems, turntables, amplifiers and accessories.

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Overseas Inquiries: Write to AR International at above address
CIRCLE NO. 2 ON READER SERVICE CARD
SPECIFICATIONS 4—FM TUNERS: Having dealt somewhat briefly last month with the problems of audio amplifier distortion, and with its significance, I now come to another critical component of a stereo system—the FM tuner or the tuner section of an FM receiver. As a matter of fact, the audible distortions that occur in FM reception are far more disturbing to the ear than those originating in the amplifier, even though they seem to receive less attention in print.

In FM reception, the listener has no control over the programming, except to tune to another station. And the audio signal broadcast by the FM station is frequently inferior to that provided by an audiophile’s record player. Practically all FM broadcast stations play the same records that you and I buy from our local record store. Presumably they are well cared for, but probably no more so than the private collections of many readers of this magazine. The record-playing equipment of a broadcasting station is designed more for ruggedness and reliability than for refinement of performance, and will rarely match the caliber of reproduction attained in a good home music system. The electronic audio portions of the broadcasting station, while of excellent quality, are certainly no better than we find in any good home amplifier.

Let us assume that we can receive, essentially unchanged, the signal radiated from our favorite FM station (this is often an unwarranted assumption, which I will discuss next month). How is this signal processed—and, inevitably, distorted—on its way through the FM tuner to our “distortionless” amplifier?

An FM broadcast signal consists of a steady transmission at constant power, at an FCC-assigned frequency between 88 MHz and 108 MHz. The audio program modulation shifts the frequency of this carrier above and below its nominal center value. The rate at which the frequency is shifted is equal to the audio signal frequency. The amount of the instantaneous frequency deviation is proportional to the amplitude (loudness) of the program.

The maximum authorized bandwidth of an FM signal is 150 kHz, allowing a deviation of 75 kHz above and below the assigned frequency. For example, if a station has an assigned frequency of 101.1 MHz (101,100 kHz), full audio modulation of the radio-frequency carrier signal would cause it to swing between 101,025 kHz and 101,175 kHz. Channel assignments are made at 200-kHz intervals, thus leaving a “guard band” between stations. To further insure against interference, assignments in a given geographical area are usually spaced at least 400 kHz apart (alternate channels).

The FM-tuner circuits perform a number of functions, all of which may affect the final sound. The radio-frequency (r.f.) amplifier builds up the weak signal level received from the antenna, which may be only a few millivolts of a volt (microvolts), and it also includes selective or tuning circuits that help reject interfering signals. The most common source of such interference is from image responses that are an inherent weakness of superheterodyne receivers (all currently produced FM receivers are superheterodynes).

An image may be received from a station whose frequency is 21.4 MHz above the frequency to which the receiver is tuned (21.4 MHz is twice the universal 10.7 MHz operating frequency of the i.f. amplifiers of FM receivers). Near an airport, where most air-to-ground communication takes place just above the FM band, transmissions from an airplane flying overhead will sometimes override an FM broadcast. A highly selective “front end” in an FM receiver will reduce the image signal to a negligible level in most cases.

How much image rejection is necessary? This is a difficult question to answer meaningfully, since in many areas it is of no importance, and in others no receiver is good enough to suppress image interference completely. A survey of current FM-receiver specifications shows a range of claimed image response figures from −45 dB to −90 dB, with the average about −70 dB. This means that an image signal has to be 70 dB stronger than the desired signal (an enormous difference) in order to produce an equivalent response in the receiver.

We do not ordinarily measure image rejections, but have occasionally experienced interference from low flying aircraft (the landing approach for a major airport passes directly over our laboratory). It is my view that practically any modern tuner has adequate image rejection for almost all situations—but that few, if any, can com-
completely reject an image response from a transmitter only 1,000 feet overhead. At any rate, it is not a significant problem in FM reception.

A somewhat similar specification is i.f. rejection. This describes the ability of a receiver to discriminate against signals at its i.f. (intermediate) frequency of 10.7 MHz. The i.f. tuned circuits, operating as they do between 88 MHz and 108 MHz, usually exclude 10.7 MHz signals very effectively, and FM antennas fortunately are highly inefficient at that frequency. Coupled with the fact that strong signals at 10.7 MHz are unlikely to be encountered, this means that i.f. interference is unlikely to be a problem (I have never experienced it). Published figures show a range of i.f. rejection of 70 to 100 dB, with an average of slightly better than 70 dB.

Another type of spurious response may occur because of the presence of harmonics of the tuner's local oscillator, which conceivably could translate one of the upper VHF TV channels into the FM band. This might be of concern to someone living very close to a TV transmitter. Although all tuners have rated spurious-response levels from -90 to -100 dB, it is remotely possible that a nearby TV station could appear at their antenna inputs as a signal 100 dB stronger than a desired weak FM signal and interfere with it. Since this would require an interfering FM signal with a level of almost 1 volt, I do not consider it a likely source of trouble.

It might seem that I am making light of these aspects of FM receiver design, but this is not my intention. The designer of a good FM receiver devotes considerable effort to achieving satisfactory rejection of all undesired signals, and this is one area where the results have been eminently satisfactory. Most receivers have very similar specifications for image, i.e., and spurious-response rejection, and I have not found any units that are not adequate in these areas in a location where between forty and fifty FM stations and at least seven TV stations can be received with a simple indoor antenna.

Since these specifications have little or nothing to do with the audible end product in practically all listening situations, I would base my choice of an FM receiver on other, more significant considerations. Next month I will continue with a discussion of some FM-tuner characteristics that do affect the sound quality.

### EQUIPMENT TEST REPORTS

*By Hirsch-Houck Laboratories*

**JVC 5003 AM/STEREO FM RECEIVER**

- It is obvious from a study of published specifications that most stereo receivers at a given price level are very much alike. Our test reports confirm this; the similarities between competing makes are usually more striking than their differences. Therefore, it is sometimes quite difficult to comment critically on the receivers we test, other than by listing their measured performance figures.

We have been using a JVC 5003 receiver, manufactured by the Victor Company of Japan, for several months. Although it is a good receiver in all respects, it is not the most sensitive or the most powerful; it does not have the lowest distortion, greatest stereo FM separation, or lowest cost. We would be hard put to justify choosing it over any of a half dozen other fine receivers simply on the basis of the usual performance parameters.

However, one feature of the 5003 receiver is unique with JVC, and it might well be enough to tip the scales in its favor. This is the SEA, or Sound Effect Amplifier —JVC's somewhat ill-chosen name for the most effective tone-control circuit we have ever used, and in fact the only one which in our view is really worth the space it occupies in the receiver.

Somehow, to our ears, ordinary tone controls never seem to be able to remove tubiness, add a solid bottom end, remove a harsh presence peak, soften the harsh edginess of some slightly distorted records, or add clean sparkle to a slightly dull program without introducing other undesirable sonic side effects. All these faults should be correctible by proper frequency-response modification, but the usual tone-control circuits simply do not have the necessary characteristics in respect to operating points and curve shape.

If tone controls are to be useful at all, they must make at least some of the above corrections reasonably well. We have rarely come across any that can correct even one of the common faults mentioned above, but JVC's SEA controls do a fine job on all of them, and many more. Individual boost or cut circuits that operate at a number of frequencies have been incorporated. In the JVC 5003, the control points are at 60 Hz, 250 Hz, 1 kHz, 5 kHz, and 15 kHz. The response at each frequency is controlled by a vertical slider-type potentiometer, with a range of ±10 dB, and with negligible effect on adjacent frequencies only two octaves away. (Continued on page 42)
discriminating people always choose receivers, tuners and amplifiers by Sherwood.

Only Sherwood, with almost two decades of precise engineering experience and dedication to quality can produce this top of the industry, SEL 200 FM receiver. It's designed for those who love the definitive instrumentation of natural concert hall sound. The cleanest encompassing wall-to-wall sound with power to spare regardless of the distance from FM transmission or structural obstruction. The SEL 200 embodies every worthwhile technical advancement ever developed with no compromise in quality, manufacturing, or design. Regardless of higher prices for comparable receivers nothing made can surpass the superiority of Sherwood's SEL 200.

Some Specifications and Features of the SEL 200

<table>
<thead>
<tr>
<th>AMPLIFIER POWER (in watts)</th>
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<tbody>
<tr>
<td>Speaker Impedance</td>
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<td>4 OHMS</td>
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- 1.5 μV (IHF) FM sensitivity for 30 dB quieting at 0.3% distortion
- 0.9 μV FM sensitivity for 20 dB quieting
- EXCLUSIVE new "Gascony" Toroidal FM IF filter—permanently aligned. The industry's most perfect filter for minimum distortion and superior selectivity
- EXCLUSIVE new "Sicilian" Toroidal FM RF filter—permanently aligned. The industry's most perfect filter for minimum distortion and superior selectivity
- EXCLUSIVE new "Lenore" Toroidal FM IF filter—permanently aligned.
- The industry's most perfect filter for minimum distortion and superior selectivity
- EXCLUSIVE new "Thumps' when tuning stations—and chance for extra reception.
- 4-Gang, 3-FET FM RF front-end tuner. 3-stage microcircuit limiting.
- FM Stereo-only Switch—selects stereo stations, rejects all others
- Main/Remote/Mono Speaker Switches—control 3 independent systems in any combination
- 2 Tuning Meters: (1) Zero-Center for pinpoint accuracy, (2) Field-Strength for antenna orienting
- Extra Tape Duplicating Jack on front panel
- Extra Tape Monitoring Jack on front panel
- Panel-Light Dimming control on front panel
- Stereo/Mono Indicator Lights; phone/auxiliary source pilot lights
- Three-year Factory Guarantee, Parts and Labor
- Handsome Oiled-Walnut Cabinet included (no extra cost)
- Overall Size in Cabinet (H, W, D): 6% x 191/4 x 14 in.

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The 386 AM/FM high power stereo receiver
SCOTT 386...THE WORLD'S MOST ADVANCED HIGH POWER RECEIVER.

Featuring such sophisticated technological advances as electronic circuit protection and electronically regulated power supply, the new Scott 386 AM/FM stereo receiver is a new landmark in the field of audio engineering. High usable power and carefully considered design make the 386 the only choice for the experienced audiophile.

Instant-acting electronic overload protection, unlike conventional thermal cutouts, Scott's new protective circuit releases the drive when too much current flows through the output transistors. A circuit-breaker will also trip under prolonged short circuit conditions at high power. There are no fuses to burn out.

Scott guarantees at least this level of amplifier performance! Massive power transformer and Full Complementary Output circuitry give maximum undistorted power at all audible frequencies.

Ultra-reliable space-age circuitry Permanently aligned quartz crystal filter IF, FM amplifier, and four Integrated Circuits (including Perfection logic module) are included in this small area.

AM reception virtually indistinguishable from FM New Integrated Circuit AM front end features pre-tuned multi-pole filter for optimum AM fidelity.

Instant-information panel indicator lights let you know at a glance whether you're receiving AM or FM, stereo or monaural broadcast. Scott Perfection indicator tells when you're perfectly tuned to best reception.

New connection techniques eliminate solder joint failures Wire-wrap terminal connections plus plug-in module construction result in the kind of reliability associated with aerospace applications.

- New illuminated dial results in increased visibility
- New muting circuit eliminates noise between FM stations
- Plug-in speaker connectors eliminate phasing problems
- Silver-plated Field Effect Transistor front end receives more stations more clearly with less distortion
- Integrated Circuit IF strip virtually eliminates all outside interference
- Integrated Circuit preamp reduces distortion to inaudible levels
- Full Complementary direct coupled all-silicon output circuitry provides effortless instantaneous power, with maximum reliability
- Automatic stereo switching instantly switches itself to stereo operation... lets you relax and enjoy the music.

386 Control Features
Input selector Tape monitor Speakers #1 On/off Speakers #2 On/off Dual Bass and Treble controls Stereo balance control Power On/off Volume compensation Muting Noise filter Perfectune automatic tuning indicator Stereo indicator light AM indicator light FM indicator light Precision signal strength meter Front panel stereo headphone output Volume control Stereo/mono mode switch.

386 SPECIFICATIONS
Power (± 1 dB) 170 Watts. HF power specifications (@ 0.8% distortion, both channels driven): Dynamic power @ 4 Ohms, 67.5 Watts/channel; Continuous power @ 4 Ohms, 42 Watts/channel, @ 8 Ohms, 35 Watts/channel. Selectivity, 40 dB; Frequency response ± 1 dB, 20-20,000 Hz; Hum and noise, phono, —65 dB; Cross modulation rejection, 80 dB; Usable sensitivity, 1.9 pV; Tuner stereo separation, 40 dB; FM IF limiting stages, 9; Capture ratio, 2.5 dB; Signal to noise ratio, 65 dB; Phono sensitivity, 3, 6 mV; Price $349.95.

Specifications subject to change without notice.

SCOTT
H. H. Scott, Inc., 111 Powdermill Road, Maynard, Mass. 01754
Export: Scott International, Maynard, Mass. 01754

SEPTEMBER 1969

CIRCLE NO. 100 ON READER SERVICE CARD
With all the knobs in a horizontal line, the response is flat, and the overall response curve follows the contour of the knobs as they are raised or lowered. Each is calibrated, quite accurately, in decibels of boost or cut. A rocke-type bypass switch disables the tone-control circuits for an instant A-B comparison—a comparison that should convince any skeptic of the circuits’ value.

If we seem to have devoted a disproportionate amount of space to the tone-control circuits of the JVC 5003, it is because we feel that they, more than anything, set this receiver apart from its competition. After you have used the SEA, you may never again be satisfied with conventional tone controls.

What about the rest of the receiver? The FM tuner has two FET i.f. stages (AGC controlled) and switchable AFC for the oscillator. The i.f. section is a trifle “old fashioned” in this day of IC’s and crystal filters; it uses five transistor stages and conventional i.f. transformers, plus circuits for operating the muting and tuning meter.

The AM tuner is quite basic, with a self-oscillating mixer, two i.f. stages, and diode detector. Its sound is adequate, but not exceptional. The multiplex circuit, running against the tide of expanding circuit complexity, uses only four transistors and a few diodes, but manages to do its job very well. The SEA control circuits are surprisingly simple (only one transistor per channel), but they use a sizable number of fairly expensive parts. The audio section of the JVC 5003 is quite conventional. When it comes to power, this unit is in the light-heavyweight class among receivers. The whole receiver is larger and heavier than most, measuring 4 3/8 inches deep and weighing about 30 pounds.

In addition to the five SEA controls, tuning, volume, and balance controls, the JVC 5003 has a selector for TAPE HEAD, PHONO, FM MONO, FM AUTO, AM, and AUX inputs. The speaker-selecor switch connects either, both, or neither of the two sets of stereo speaker outputs. A headphone jack is on the front panel, as is an illuminated push-on, push-off power switch. Along the bottom of the panel is a row of eight rocker switches. These control FM-AFC, FM muting (with the threshold level adjustable from the rear of the receiver), tape monitoring, mono/stereo, loudness compensation, low-cut filter, high-cut filter, and tone-control bypass.

No matter how novel its features, a receiver would be worth little if it did not perform up to expectations. The JVC 5003 came through its tests well. Its FM sensitivity (IHF) was 2.3 microvolts, a very adequate figure. FM distortion (mono) was 0.75 per cent at 100 per cent modulation. The FM frequency response had a “shelf” of several dB at about 1,500 Hz, suggesting an incorrect emphasis time constant, but was within ±3 dB from 30 to 15,000 Hz. Effectively it was much better than that, since it was flat within ±1 dB from 30 to 1,000 Hz, and from 2,000 to 15,000 Hz. The stereo separation was better than 30 dB from 70 to 1,300 Hz, falling to about 8 dB above 10 kHz.

The basic audio-frequency response was flat within ±0.3 dB from 40 to 20,000 Hz, falling to −4.5 dB at 20 Hz. The high- and low-frequency filters have 6-dB-per-octave slopes and are not too effective. We ran a series of response curves on the SEA controls which agreed exactly with the published curves. Loudness compensation, which sounded quite good, boosted both lows and highs. In every case, we preferred to use the SEA controls instead of the filters and loudness compensation.

The RIAA record equalization was very good, within ±1 dB. The NAB tape-head playback equalization was not as good, having an overall variation of ±1.5 dB.

(Continued on page 44)
WHAT MAKES A GOOD SPEAKER?

1. Smooth, wide frequency response.
2. Precise transient response.
3. Uncolored, neutral sound.
4. Wide high-frequency dispersion.
5. Value.

We designed the A-25 loudspeaker with these attributes in mind. How well did we succeed?

HERE'S WHAT THE EXPERTS SAY:

1. "...the overall response curve (of the Dynaco A-25) was as flat and smooth as can be when measured in a 'live' environment."

2. "...nothing we have tested had a better overall transient response."

3. "...we were impressed with the new speakers' honest, uncolored sound."
   High Fidelity, July, 1969.
   "In our listening tests, the Dynaco (A-25) had a remarkably neutral quality."

4. "The highs were crisp, extended, and well dispersed."
   "An 11 kHz tone could be heard clearly at least 90 degrees off axis..."
   High Fidelity, July, 1969.

5. "...Not the least of the A-25's attractions is its low price of $79.95. We have compared the A-25 with a number of speaker systems costing two and three times as much, and we must say it stands up exceptionally well in the comparisons."

Send for literature or pick some up at your dealer where you can also hear the A-25.

Dynaco INC.
3060 Jefferson St., Phila., Pa. 19121
In Europe write Dynaco A/S, Humlum, Struer, Denmark

SEPTEMBER 1969
The power amplifiers delivered about 43 watts per channel into 8 ohms, with both channels driven. The output into 1 ohms and 16 ohms fell to 35 watts and 31 watts per channel, respectively. Harmonic distortion was under 0.2 per cent from 2 watts to 42 watts at 1,000 Hz, rising to 0.45 per cent at 0.1 watt. The 1M distortion was a constant 0.8 per cent up to 45 watts, where it increased sharply.

At 40 watts per channel, the harmonic distortion was under 0.2 per cent from 40 to 3,000 Hz, and rose to 1 per cent at 32 and 14,000 Hz. At half power or less, the distortion was less than 0.2 per cent from 20 to 3,000 Hz and rose to between 0.6 and 1.2 per cent at 20,000 Hz. Hum and noise were exceptionally low, about 80 dB below 10 watts on both phono and auxiliary inputs, and 73 dB below 10 watts on the tape-head input. Although the phono sensitivity is high, requiring only 1 millivolt for 10 watts output, the phono preamplifiers did not overload until a 63-millivolt signal was applied.

These results speak for themselves—the JVC 5003 is a highly versatile, reasonably sensitive, powerful receiver with a tone-control system that can improve many speaker systems and make a lot of program material sound better. A record, included with each receiver, demonstrates effectively how the SEA can improve or modify the character of sound without impairing musical quality or producing a gross imbalance. We enjoyed experimenting with the SEA controls, and we are convinced that they are extremely useful, unlike ordinary tone controls which we prefer to leave in their centered position. The JVC 5003 receiver in a metal enclosure (shown) has a list price of $349.95. A wood enclosure in oiled walnut is approximately $20 additional.

For more information, circle 157 on reader service card

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**NORDMENDE 8001/T TAPE RECORDER**

- The West German-made Nordmende 8001/T tape recorder is a handsome and versatile machine. It is shallow in format, measuring 19¼ inches wide by 14 inches high, and is only 6 inches deep including its removable smoky gray plastic cover. It is easy to carry in spite of its weight of about 36 pounds.

The 8001/T is a three-motor, three-head, four-track stereo machine with separate recording and playback heads and amplifiers, two 3-watt playback amplifiers, and a pair of small elliptical monitor speakers. All transport functions are solenoid operated, via light-touch rocker-type buttons. A remote-control connector permits starting and stopping the transport at a distance. All connectors are of the DIN type, requiring special cables or adapters for connection to American components.

The Nordmende 8001/T has a number of unusual features, including a push-on, push-off power switch with a removable plastic key without which the machine cannot be operated. There are inputs for tuner, crystal or ceramic phono cartridge, and 200-ohm-impedance microphones. Four slide-type level controls are provided, with mixing action. The tuner and phono inputs are each controlled by a single knob affecting both channels. Each microphone has its own level control so that channels can be balanced when making a live recording.

The two level meters indicate only while recording. Red and green lights flanking the meters show whether a given track is in the recording or playback mode. The function switch has positions for four-track mono operation, stereo, or DUOPLAY, which is a system for synchronizing slide shows with spoken commentary. A small slide switch selects the monitoring signal from the recording amplifier or from the playback amplifier. Which brings us to a puzzling aspect of the Nordmende 8001/T: it has full facilities for monitoring the tape while recording, but only which plugs to use for inputs and outputs on the DIN adapter cables, and what happened when the various controls (identified only by symbols) were operated. We were unable to face up to the task of figuring out the MULTIPLAY and DUOPLAY functions, but we suspect that these would be of little interest to most tape recordists.

On the positive side, we found the tape loading to be exceptionally straightforward and simple, and the transport controls operate with a satisfyingly positive action. It is very quiet in operation and is pleasing to look at. Our laboratory tests told us the rest of the story.

The playback response, using Ampex test tapes, was +4, −5 dB from 60 to 14,000 Hz at 7½ ips, and +2.5 dB from 50 to 5,000 Hz at 3½ ips. The overall record-playback response, using Scotch 205 tape, was ±3 dB from 70 to 17,500 Hz at 7½ ips, ±2 dB from 55 to 14,000 Hz at 3½ ips, and ±5 dB from 25 to 7,500 Hz at 1½ ips. All of these figures, needless to say, represent very fine frequency response at the respective speeds. They were measured on one channel, and the other was generally similar except for a high-frequency rise.

The wow was low (0.04 per cent), but flutter was 0.17 per cent at both 3½ and 7½ ips. This is not far from the manufacturer's specification of 0.15 per cent at 3½ ips.

(Continued on page 48)
If you are prepared to regard sound reproduction as an experience, and if this experience could possibly be worth $2000 plus to you, read on.

This is the story about an epic sound system. An all-stops-out, damn-the-expense sound system. Extravagantly priced and extravagant in performance.

Three Sony TA-3120 solid-state stereo amplifiers deliver more than 300 watts of audio power with distortion low enough to be virtually immeasurable.

The control center: the professional Sony TA-2000 preamplifier. Typical of its credentials: IM distortion well under 0.1% at any input; dynamic range of 80dB, more than enough to reproduce the full loudest-to-softest sound range of a symphony orchestra.

Controls and conveniences? A brace of VU meters; tone controls with 11 discreet switch positions; tone-control cancel switch; level set controls at each input; stereo outputs that can be adjusted to suit the needs of different power amplifiers, etc.

The Sony TA-4300 solid-state electronic crossover is the heart of the ideal multi-channel system. Operating between the pre-amp and the 6 power amplifier sections, it feeds each speaker only the range it has been designed to reproduce.

The program sources: The ST-5000 FET stereo tuner with the Sony solid-state i.f. filter that never needs realigning brings in stations that never seemed to exist before. The TTS-3000 servo-controlled turntable, rated by High Fidelity Magazine as having "the lowest rumble figure yet measured (77dB)", and the PUA-286 transcription arm track records flawlessly.

Enjoy an epic experience. Audition the $2001 system. Sony Corporation of America, 47-47 Van Dam St., Long Island City, N.Y. 11101

CIRCLE NO. 58 ON READER SERVICE CARD
The new Nocturne Eight Twenty solid state receiver has 140 Watts of power and perhaps the most sophisticated FM stereo tuner ever built. But it doesn't have an AM radio.

At $299.95, we had to make a choice. So we made the one we thought you would make. We traded the AM radio for an inordinate amount of performance. For instance, the Eight Twenty has enough guts to drive four speaker systems flawlessly, without the slightest sign of strain. The amplifier is unlike any power output stage found in conventional stereo receivers. It employs wideband silicon transistors and a heavy duty power supply which extends the amplifier's response to below 5Hz and above 60,000Hz. This results in flawless reproduction of all harmonics without phase and transient distortion. The output stage uses a quasi-complimentary symmetry design which insures accurate balance and symmetry at the clipping points. A high degree of feedback is used to keep distortion down and stability high. Harmonic distortion products are kept below 0.5% at full output across the audio spectrum of 20-20,000Hz. This insures unusually smooth and transparent sound.

At $299.95 we had to choose between an AM radio and better performance. We left out the AM radio.
Newly designed integrated circuits and crystal filters in the I.F. strip make FM tuning as precise as switching the channel selector of a television set. The tuner accepts only the station to which it is tuned, regardless of how close an alternate or adjacent station may be. An FET front end coupled with a four ganged tuning capacitor assures unprecedented sensitivity and selectivity. Crossmodulation has been reduced to the vanishing point.

The new Harman-Kardon Nocturne Eight Twenty doesn't have an AM radio. But it has everything else you could possibly want in a receiver. And at an amazingly low price. Hear it soon at your Harman-Kardon dealer.

For more information, write: Harman-Kardon, Inc., Dept. SR-9, 55 Ames Court, Plainview, N.Y. 11803.

harman kardon
A subsidiary of Jeris Corporation

140 Watts, ± 1 db; 110 Watts, IHF
but is somewhat higher than we have found on other comparably priced machines. The signal-to-noise ratio was 47.5 dB, with the noise being primarily hum (not audible in normal use). The distortion at 0 dB recording level was a rather high 6.6 per cent, reducing to 3.8 per cent at -3 dB and to 1.2 per cent at -10 dB. We would therefore recommend keeping the recording level well below the 0-dB meter calibrations. The gain at the tuner input was excessive, requiring only 50 millivolts (0.05 volt) for 0-dB recording level. This meant that the tuner-level control had to be operated near its minimum setting. Tracking between the two sections of the control was poor, and therefore we would recommend setting the control once and leaving it alone.

Although the Nordmende 8001/T's drive mechanism shuts off automatically if the tape is equipped with sensing foil, it will not shut off automatically when the tape runs out or breaks. When the tape runs out in the record or playback mode, the reels spin at an unusually high speed, leaving the end of the tape in tatters. The high-speed motors, incidentally, provide a real advantage in fast forward and rewind modes, handling 1,800 feet of tape in only 62 seconds. This is one of the fastest-winding recorders we have encountered in some time. Aside from the points mentioned above, the machine works well and, particularly in the record-playback mode, sounds fine. The Nordmende 8001/T sells for $129.95.

For more information, circle 158 on reader service card

SCOTT S-15 SPEAKER SYSTEM

- Recent H. H. Scott speaker systems have been designed with attention to the special requirements of transistor power amplifiers. Most such amplifiers cannot drive a load of much less than 4 ohms without either damaging the output transistors or tripping their protective circuits. Some speaker systems with a nominal 8-ohm rating actually present a much lower impedance at certain frequencies. Scott's "controlled-impedance" design limits the minimum impedance of the complete speaker system, over its full frequency range, to a safe value. The Scott S-15 is typical of that company's new models. It is a medium-price bookshelf system, measuring 233/4 inches wide, 113/4 inches high, and 9 inches deep. Its compact size and its light 241-pound weight make it a rather high 6.6 per cent down to 50 Hz, 6 per cent down to 30 Hz, and 10 per cent at 20 Hz. Probably the output at the lowest frequencies would have been enhanced with corner mounting of the speaker, but we tested it in a mid-wall location such as would normally be used with a system of this type. Because of its low distortion in the bass, the S-15 is potentially an excellent low-frequency reproducer, and it could be satisfactorily equalized by an amplifier whose tone controls provide moderate bass boost without affecting the higher frequencies. Although the S-15 does not have the palpable lows of some comparably priced speakers, we believe its sound would satisfy almost anyone except a pipe-organ buff. The absence of an over-emphasis in the lower and middle bass enables it to reproduce the human voice with greater naturalness than many speakers that favor the lower end of the spectrum.

The tone-burst response of the S-15 was outstandingly good, except for a single frequency in the vicinity of 1,200 Hz, where we found some ringing. Occurring as it did at one frequency only, it could not be heard when listening to program material.

The S-15, being relatively small, light, and unadorned, may not look like a $120 system to admirers of cabinet work. However, be assured that it definitely performs like one! Its sound is clean and balanced, and it can be listened to for hours without strain or fatigue. This is a necessary quality of any good speaker system—and the Scott S-15 passes the test with ease.

The S-15 is used in Scott's "top of the line" 2505 compact music system ($550), and is compatible from a quality standpoint with the performance of good components making up a $400-800 system. It sells for $119.95.

For more information, circle 159 on reader service card

Oscilloscope photos display the S-15's fine tone-burst response at three frequencies: from left to right, 100, 3,000, and 9,000 Hz.
Contrary to popular opinion, this is all you need to recognize a great stereo.

Most people think buying a stereo requires at the very least a degree in electronics. It doesn't.

If a stereo sounds clear, if you can hear all the instruments and if the singer sounds like she's singing to you, you're listening to a great stereo. That's all there is to it.

Now that you know how to look for a great stereo, we'd like to tell you about one. The Sony HP-480 Compact Stereo System.

The HP-480 has an all-silicon transistor amplifier. An FM stereo/FM/AM tuner. (The HP-480 also comes without a tuner, but we call that the HP-460.) A Dual Automatic Changer. A Pickering Dustomatic magnetic cartridge with a diamond stylus. Sealed speakers with 6" woofers and 3" tweeters. And an OTL circuit for better sound quality and less distortion.

However, if you don't understand what any of that means, don't worry. Your ears will.

The Sony HP-480 Compact Stereo System
By JAMES GOODFRIEND

GOING ON RECORD
MUSIC AND MONEY

TOMORROW, someone with money to spare is going to give some of it to music. This happens every so often and it has been going on for a long, long time: a foundation commissions a new piece; a local government subsidizes a concert hall; an individual makes a yearly contribution to a symphony society. The conditions under which the money is granted are as varied as the rainbow, but they are usually alike in one respect: the donor keeps his hands off the music. I'm here to suggest that, on the contrary, the donors should get their hands a little "dirty" by putting them right in the middle of it.

One thing that can be said about serious musical life in America today is that it is self-contained and free-floating. It is responsive to virtually no needs outside itself, and winds of change buffet it about like a cork on the water without effecting the least change in its internal structure. Money put into it tends to support it without improving it in the slightest. It has little, if any, connection with real life. If music and musicians are often treated like charity cases, a good part of the blame for that can be laid to the belief (held by many musicians and nonmusicians alike, and forced upon those who don't) that music is something of unassailable purity and must be maintained that way, that artistic decisions are the exclusive prerogative of artists and artist-connected individuals and organizations. Deciding what music you are going to get for your money is an "artistic decision."

Suppose we look at a few of the ways that money is distributed to music. A university hires a composer to teach composing and a pianist to teach piano playing. It is assumed that the composer will also compose—something. And that the pianist will also perform—sometimes. But the university would never dream of specifying any demands outside the duties of the academic curriculum. And yet, though it is hoped that both the pianist and the composer will be good teachers, the major reason for having hired them is their reputation and ability as pianist and composer.

The musicians of an orchestra go on strike for higher wages, and after a protracted settlement the orchestra management solicits donations to cover the additional costs (as well as last year's deficit). A subscriber to the concerts donates a hundred dollars. But both he and the orchestra management (not to mention the conductor or the players) would consider it at the very least a breach of taste were he to enclose with his check a request that the orchestra play a little more Berlioz next season. More important, no such requests or suggestions could receive any consideration whatever because there is no mechanism set up to consider them.

A foundation commissions a work from a composer. Which composer is something decided upon by asking, usually, other composers, conductors, etc., and often the very same small group of men. Sometimes an arrangement is made with a symphony orchestra or chamber group to give the first performance of the commissioned work; sometimes it isn't. The composer is told the size of the group he should write for, the approximate length of the piece, and, perhaps, to whom the piece is to be dedicated. What he is almost invariably not told is what function the piece is to serve, what style would be preferred, whether anyone would really be interested in programming, publishing, or recording the piece, and why the foundation wants the piece in the first place. And yet the foundation is, in fact, buying a piece of music. Has any foundation ever asked itself why it wants a piece of music? Or is it, metaphorically, simply giving charity to a blind man and taking in return whatever sort of pencils he happens to be peddling?

A manufacturer of electronic equipment, who has done well in a business strongly dependent upon music, decides to make a disinterested contribution to the art by sponsoring the recording of a number of essentially noncommercial, contemporary compositions. He does this (Continued on page 52)
Benjamin proudly announces the world's second best automatic turntable.

Small wonder that the Miracord 50H is the world's most coveted automatic turntable. The top, top authorities have awarded it top rating. And who doesn't want the very best?

The Miracord 750 is virtually identical to the 50H except that it employs a dynamically-balanced, 4-pole induction motor instead of a Papst hysteresis synchronous motor. It also costs $20 less—$139.50.

The new 750 still offers all of these wonderful Miracord features: the exclusive Miracord push-buttons; the slotted lead screw for precise stylus overhang adjustment; piston-damped cueing; effective anti-skate; the 6 pound cast aluminum turntable; and a dynamically-balanced arm that tracks to 1/2 gram.

Enjoy the world's second best automatic turntable and save $20 over the cost of the world's best. The Miracord 750 is only $139.50 at your high-fidelity dealer.


ELAC/MIRACORD 750 another quality product from BENJAMIN.
**Get all the sound you paid for!**

Don't spoil your costly sound system by using inferior connectors. You've already paid for quality...now make sure you get it!

Use Switchcraft/Preh connectors to link up all the components in your system...cassettes, amplifiers, speakers, tuners, mixers, recorders. These quality connectors interconnect every type of audio equipment, imported or domestic...and do it superbly.

Don't cheat yourself out of all the enjoyment that should be yours...insist on Switchcraft/Preh connectors.

Switchcraft also provides a large variety of pre-wired connectors and adapters. Just the thing for those impossible interconnections between components of differing make.

See for yourself...in the Switchcraft Audio Accessory Center at your Hi-Fi dealer.

Or write to us...we'll send you free our 24-page catalog A-404. We'll also send you the name of your nearest Switchcraft Hi-Fi dealer.

**in such a way that no financial gain (assuming there would be any) would accrue to himself. That is highly praiseworthy. He also does it in such a way that his tastes and interests are not at all involved; that is to say, he asks a panel of eminent musicians to choose the works to be recorded with no interference from him. Many people would consider that at least equally praiseworthy. I don't.

Three points lie behind my objections to each of the foregoing examples. The first is that the music business is too introverted, incestuous, and self-centered for its own good. It badly needs audiences, and it has so little contact with the outside world that it has little idea how to draw those audiences. Yes, in New York City you can fill up the Metropolitan Opera House. But even that won't go on forever, for outside the major cities the taste, or the potentiality of a taste, for classical music has so rarely been catered to that it is in danger of being lost altogether.

The second point is that the condition of having money to donate carries with it some responsibility for its eventual use. What the world needs now is not another in-group decision on which young composers are the most deserving (or the most needy, or the best politicians) or what is owed to certain older composers who have been, for one reason or another, neglected. What is needed much more is a little passionate involvement on the part of a layman who loves music and has some money (for most musicians do not have money) to propagate some music that he himself loves.

The third point is that music is looked upon today, by its practitioners, its supporters, and its detractors, as a sort of paraplegic art, virtually incapable of doing anything for itself and certainly unable to be of functional use to anyone else. This has never been true before. In the past, when someone hired a pianist to be in residence he did so because he wanted his house filled with piano music at certain specified times; when he commissioned a work to be composed for him it was quite often because he wanted to play it himself, because he had a particular occasion coming up for which he needed such a piece, or because he simply wanted a certain kind of piece for future entertainment, and he could specify just what he wanted; when he supported or helped to support an orchestra, he expected his tastes to be consulted when the repertoire plans were hashed out.

It seems to me that when a composer is hired by a university, he should not be hired to teach a form and analysis class (unless he has a desire to do so and a reputation for being an outstanding teacher of form and analysis), but to compose music. A university has dozens of functions each year for which music is required. Any composer worth his keep can meet those requirements with ease by writing music that is not going to go straight into the desk drawer, and feel that he is earning his livelihood by doing both what he wants to do and what he is trained and has the talent to do.

It seems to me that if a foundation cannot come up with a sensible reason for buying a piece of music, it should not buy any, but rather turn over the requisite amount of money to someone who does need a piece of music and knows what he needs and let him buy it.

A commission should come from a performer, a performing group, a producer, a record company, or someone else who has a stake in how the piece turns out.

It also seems to me that an organizing that solicits contributions should be made to spell out in detail just what they intend to do with the money rather than present last year's unpaid bills as proof positive of management's past miscalculations. Some organizations might just find that their support can be considerably more broadly based than it is at present if prospective donors know what it is they are putting their money toward and have an opportunity to influence the choice of goals.

A request for funds to mount a performance of Mahler's Eighth Symphony, Delius' A Mass of Life, or Schoenberg's Moses und Aron might bear the fruit that vague appeals for cash to spread the cause of culture do not. For, sad to say, management doesn't know what the customers want; as is becoming more apparent every day, management doesn't even know who the customers and the potential customers are.

The ultimate solution, I think, lies in the localization of musical resources. I look forward to the time when every decent-size town has an orchestra, a chamber ensemble, a vocal group, or a pianist in residence. Not simply to live there, but to earn their livelihood there—by performing. They can be on the town payroll if need be (the payroll already covers a multitude of less useful jobs), and the town can apply to the foundation for funds to keep them there.

Let the town have a unique musical voice, some small antidote to the dismaying uniformity of culture today and the Pabulum pall of the mass media.

I look forward to the time when a city can support a couple of composers. Not tolerate them, but make use of them as creators of music to be played by local ensembles. What I am advocating is not culture by committees, but culture for people. Let them get a sufficient taste of it to develop their own taste, and then give them the power to exercise it.
Ever see a sonic boom?

You're looking at our A-1200U tape deck. Most people would rather listen to it. Even though it's already started its own sonic boom. And no wonder: the A-1200U is our standard four-track model, with all the famous TEAC craftsmanship at an ear-boggling low cost. And plenty of unique features, like the popular ADD recording for simultaneous playback and recording on separate tracks. This is the machine that breaks the price barrier to your sound investment. Without breaking you.

TEAC Corporation of America • 2000 Colorado Avenue • Santa Monica, California 90404
BOOK REVIEW

“MUSIC IN THE UNITED STATES”
Reviewed by Wilfrid Mellers

A potted history of music (as of anything else) is always a dubious enterprise because human beings, who are the makers of music, are variously unpredictable and irreducible—despite modern computation techniques—to statistics. A history of, say, Renaissance or Baroque music must inevitably concentrate on the work of a few great men from whom, indeed, our notions about the Renaissance or Baroque period are ultimately derived. The host of minor figures will be lumped together as examples of this or the other trend or tendency: though we must know, if we have any first-hand experience of and sensitivity to their art, that they too have multifarious human identities which can only be falsified by an attempt to reduce them to a lowest common denominator.

Faut de mieux, we accept this, since we live under the burden of so much accumulated Past; yet we’d probably admit that the only history books we find consistently stimulating are those which don’t attempt to cover the ground comprehensively, but rather reveal the present reality of fragments of the past: for if the past is not meaningful to us now, it’s difficult to see what justification there can be for resuscitating it. When we approach recent history (and all American history is comparatively recent) it would seem that the problem might be less acute, if only because the sheer mass of material is less daunting. In fact this is not so, since smaller bulk is counterbalanced by reader accessibility. In the relatively brief period of American history there may be fewer composers, as compared with a portmanteau period such as “the Baroque,” but we know more about them; and there’s the added disadvantage that time hasn’t yet sorted out sheep from goats.

It follows that, in writing a history of American music, we’re most likely to be usefully readable if we’re discussing in some critical (not merely historical) detail composers who are worth the labor, or when we’re writing social history with a slant towards music but without much attempt at the dissection of music too insubstantial to warrant it. H. Wiley Hitchcock’s book Music in the United States—a contribution to Prentice-Hall’s series which aims, with enlightened enterprise, to cover the whole range of “art” and folk music, western and eastern—would seem to bear this out. The chapters on the early history of American music are succinct, informative, and well-written. Early American hymnody, if not of supreme musical excellence, is fascinating and vital enough to complement a decisive period in man’s history; and the subject isn’t too vast to be illuminatingly treated both in musical and social terms. Much the same is true of the musically less rewarding art of America’s earliest “cultivated tradition”; for though detailed analysis of the music wouldn’t be justified here, its social significance can be (and in this book is) discussed with equal entertainment and profit. Mr. Hitchcock is especially good on early interrelationships between this “cultivated,” Europeanized music and the vernacular tradition; one is grateful for any book that treats culture as a totality, without separating art and society. The book’s treatment of Charles Ives, for instance, is so perfunctory as to be drearily ironic than the polishing off of an entire culture in a single paragraph, such as one finds in the ethnological volumes in this series; or the dismissal of a school of composers in a sentence, such as occurs in the Renaissance and Baroque volumes.

This glumly inconsequential effect isn’t the fault of the able writers who have, given the circumstances, for the most part done “as well as could be expected.” It’s rather endemic in the nature of the undertaking, and, as a teacher myself, faced with similar problems, I’ve sometimes felt that to teach history comprehensively cannot be other than de-educational. From these blanketwords one cannot discover what happens in this or the other musical composition, created by living and breathing, joying and suffering human creatures at this or the other moment in time; and perhaps silence would be better than the inevitable mis-information. There is no short-cut to first-hand experience. Since time is brief, maybe writers of history texts for the young can’t and shouldn’t do more than direct students’ attention to what is most worth exploring. At least all the volumes in this series contain bibliographies of scores and records as well as books. The student is given the tools to investigate the sounds of music; and one must hope that the unavoidable ex cathedra tone of the roll-calls won’t stifle the instinct for discovery.


Wilfrid Mellers, Professor of Music at the University of York in England, is the author of Music in a New Found Land.
Which of these comparably priced, top quality speakers offer you Electronic Suspension?

Only LWE.

LWE introduces a whole new era in speaker design. No longer must a speaker depend on porting, or reflex, or resonance, or baffles, or sand, or weighted cones, or cabinet size, shape or design. LWE’s newly patented (March 1969) Electronic Suspension speakers actively eliminate reproduction distortion by electrical commands to the amplifier. The result is remarkable and unrivaled fidelity. LWE research has uniquely applied the principle of inverse — or negative — feedback to control the speaker cone electronically at all times. This produces greatly improved transient response, virtual elimination of speaker distortion, and extension of low frequency response. In short, LWE out-performs any conventional speaker on the market today — regardless of size or price. Hear LWE for yourself. And for more detailed information write for our Sound of Excellence brochure. Our prices range from $60 to $469. LWE Electronic Suspension has arrived, and you’ve never heard it so good.
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It costs a few pennies more. But Sony professional-quality recording tape makes a world of difference in how much better your recorder sounds—and keeps on sounding. That's because Sony tape is permanently lubricated by an exclusive Lubri-Cushion process. Plus, its extra-heavy Oxi-Coating won't shed or sliver. Sony tape is available in all sizes of reels and cassettes. And remember, Sony professional-quality recording tape is made by the world's most respected manufacturer of recording equipment.

You never heard it so good.

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FOUR-CHANNEL STEREO
A PROGRESS REPORT BY ROBERT BERKOVITZ

Four-channel (360-degree) stereo has for months been widely discussed—and seldom heard. However, beginning this month, Acoustic Research, Inc. is going to give millions of music listeners in the New York and Boston areas an extended opportunity to hear four-channel stereo. This new—and still experimental—audio technique, which uses four speaker systems in a room for full 360-degree reproduction, will be demonstrated by AR in Boston-area FM broadcasts which properly equipped listeners can hear at home. Four-channel 360-degree tape recordings will also be demonstrated at the AR listening rooms located in New York's Grand Central Terminal and near Harvard Square in AR's home town of Cambridge.

The FM broadcasts represent a significant technical experiment, in addition to their musical importance. The entire twenty-four-concert Saturday-night season of the Boston Symphony will be presented on two stereo FM broadcasting stations: WCRB-FM and WGBH-FM. Listeners to either station (in mono or two-channel stereo) will hear the same excellent sound quality as that broadcast in past years. However, those able to obtain an extra stereo receiver and an additional pair of speaker systems can be participants in an extraordinary acoustical experiment, in which the world-famous orchestra will seem to be spread around their listening rooms in the unique acoustical setting of Symphony Hall. There will be no attempt to duplicate the sound field at some hypothetical best seat; the aim will be rather to exploit the sonic potentialities of the new medium creatively. The technique for microphone pickup, broadcast, and listening arrangement was worked out cooperatively by Roy Allinson and the writer, representing Acoustic Research; Richard L. Kaye of WCRB-FM; Jordan Whitelaw, Radio and Television Producer for the Boston Symphony; and William Busiek of WGBH-FM. The technique used was arrived at through evaluation of numerous recordings made during actual concerts earlier this year.

In the AR music rooms in New York and Cambridge, the medium will be four-channel, 1/4-inch tape. All recording companies now own multi-channel recorders, and units capable of simultaneous recording of twenty-four channels are used regularly in some studios. However, the tapes made on such machines are not intended for reproduction by an equal number of amplifiers and loudspeakers, the multiple channels are used to record separately, but simultaneously, different sections of the performing group. The purpose of the multi-track recording is to provide the producer and engineers full control over instrumental balance when the material is mixed down into the normal two-channel stereo recording released to the public.

The idea of using such recorders experimentally to make true three-, four- or more-channel recordings for playback through as many speaker systems is not new. A recent article in the Journal of the Acoustical Society of America by Marvin Camras of the ITT Research Institute reports on experiments with twelve-channel recording and playback: five speakers in front, two at each side, two at the rear, and one overhead.

AR's experiments, some of which I discussed in an article in the May issue of STEREO REVIEW, began as an investigation of the extent to which two-channel stereo, rather than the quality of the components, is the major obstacle to accurate reproduction of music. And, in part, the experiments also were aimed at discovering what a listener would hear if he were placed, through electro-

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(Continued on page 59)
The Outperformer that fulfills the impossible dream

Here's the brilliant realization of sound, beyond your fondest dream. The new Pioneer SX-990 solid state AM-FM multiplex stereo receiver was designed with you in mind. Thoroughly flexible, you can plan a complete stereo system around it. Rated according to the Institute of High Fidelity standards (as all Pioneer units are), it contains top quality circuitry plus many refinements found only in much more expensive units. Versatile, it offers: 2 phono, tape monitor, microphone, auxiliary and main amplifier inputs. Outputs for two pairs of speakers make it ideal as a power source for any fine stereo system. Elegantly styled in an oiled walnut cabinet, it's the perfect complement to the most discriminating decor. Hear it at your local Pioneer dealer. Only $299.95.
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Precision-molded case is high-impact plastic, features permanent ultrasonic sealing, large integral window. Color coded for recording time.


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One-piece hub locks leader tape securely, eliminates "bump" that can distort tape in winding.

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Helpful booklet, "Recording Basics" is yours free with any "Scotch" Brand purchase from your nearest participating dealer. Or send 25¢ coin to cover handling to: 3M Company, P.O. Box 3146 St. Paul, Minn. 55101. Also ask your dealer for catalog of special premiums.
acoustics, in a living-room duplicate of the reverberant field of the concert hall. The recordings were made using multiple microphones, playback being done with the front speakers left in their normal stereo locations and two extra speakers (driven by separate amplifier channels) set up in the upper rear corners of the listening room. The microphones in the concert hall were arranged to provide the most realistic results with such a speaker arrangement.

The idea is not different in principle from that of Camras, or of other experimenters who preceded him in various countries in earlier years. The different element is the new possibility that home listeners might soon be given the opportunity to enjoy such music reproduction. It was for this reason that AR began its experiments with four channels, in the belief that this number represents a practical limit of cost and complexity for most listeners.

Some of AR's first experiments were at the New England Conservatory of Music in the conservatory's Jordan Hall. At the writer's suggestion, Thomas Mowrey of the Eastman School of Music began experimenting with the technique, his efforts culminating in a spectacular recording of "spatial music" by composer Henry Brant, in which the musicians were arranged in various parts of the auditorium. The Eastman tape was played for several interested executives of major recording companies—and provoked considerable excitement.

In the meantime, Acoustic Research had found an ally in a major recording company which had been investigating four-channel techniques for some time, even to the extent of having commissioned works of music for the medium. That company—Columbia Records—will supply most of the four-channel tapes AR will be demonstrating in its music rooms. Columbia has issued no statement about their experiments and is understood to have no plans to release the tapes commercially. Vanguard Records will soon be releasing the special stereo tapes that were demonstrated to selected members of the New York audio press in semi-private sessions on June 25 of this year. The Vanguard tapes will also be on hand at the AR music rooms.

The system to be used at the music rooms is one in which standard one-quarter-inch tape has four parallel tracks in the same way as the normal four-track stereo tapes. For four-track stereo, all four tracks are recorded simultaneously in the same direction and, of course, they are also played back the same way. Whether the resultant sound will be that of the immediately foreseeable future or not will depend, to some extent, on listeners' reactions to the AR demonstrations.

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The Kodak Instamatic M9 movie camera with ultra-fast f/1.8 power zoom lens is waiting for you for less than $200. See your Kodak dealer. Price subject to change without notice.
Some people say Ampex stereo recorders are expensive. They’re right.

We put more into them. So you get more out of them. More sound, because our recorders actually produce their stated specifications. And every Ampex keeps giving you the stated spec performance over a much longer period of time.* Here are the facts.

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Every Ampex uses famous deep-gap heads. These heads cost us a lot more to make, but they deliver far better sound far longer than any others in the industry. ** We install them more precisely. And on bi-directional units we make sure the heads are equally sensitive. So both directions sound identical.

Every Ampex tape drive system is powered by a special, heavy-duty hysteresis synchronous motor. A motor we make even better with a die-cast flywheel/fan for consistently cooler, smoother operation. And we use an exclusive Ampex-designed drive belt with built-in damping factor to further reduce flutter.

The Ampex reel drive and brake system costs more to build. But it makes tape breaking, tearing or stretching almost impossible no matter how fast you change direction. Our dual capstan drive is expensive but insures less wow, flutter and less wear on tapes. Our stainless steel tape guides are ground more accurately and set more precisely into each unit. This insures that tape crosses the heads at an optimum frequency response angle even after years of use.

Finally, every Ampex uses higher grade electrical components. Our transistors, resistors, capacitors and semi-conductors surpass engineering specifications. And we don’t push them to their limits. Even our transformers are larger, with more laminations and copper, so they don’t have to hum to handle the electrical load, magnetize the heads less, run cooler and have a much longer life span.

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Write Ampex Corporation, Consumer Equipment Division, Dept. SR-9, 2201 Lunt Ave., Elk Grove Village, Ill. 60007 for a full color spec sheet on the 1467 and a brochure on the entire Ampex line.

* See “Will your tape recorder sound as good in December as it did in May.” in leading audio magazines, April, 1969.

** See “A message from the heads of Ampex. Listen.” in leading audio magazines, March, 1969.
THE BASIC REPERTOIRE: Item One Hundred Sixteen

By Martin Bookspan

ON May 1, 1786, Mozart's opera The Marriage of Figaro was given its world premiere at the Burgtheater in Vienna. Soon afterward it was performed in Prague, where it was an immediate sensation. An invitation was extended to the composer to visit the Bohemian capital, and in the early weeks of 1787 Mozart was the toast of that city. On the 15th of January, Mozart wrote from Prague to a friend that he had visited the Breitfeld Ball, where the flower of the Prague beauties used to assemble:

You ought to have been there, my dear friend; I think I see you running, or rather limping, after all those pretty creatures, married and single. I neither danced nor flirted with any of them—the former because I was too tired, the latter from my natural bashfulness. I saw, however, with the greatest pleasure, all those people flying about with such delight to the music of my Figaro, transformed into quadrilles and waltzes; for here nothing is talked of but Figaro, nothing played but Figaro, nothing whistled or sung but Figaro, no opera so crowded as Figaro, nothing but Figaro—very flattering to me, certainly.

Mozart had brought with him to Prague the recently completed Symphony in D Major (K. 504), which is now known as the "Prague" Symphony. The score was given its first performance there on the 19th of January, 1787, and a second one followed almost immediately. In a biography of Mozart published in 1798, Franz Niemetschek, a Bohemian musician who was present at the January 19 concert, wrote:

The symphonies which he chose for this occasion are true masterpieces of instrumental composition, full of surprising transitions. They have a swift and fiery bearing, so that they at once tune the soul to the expectation of something superior. This is especially true of the great Symphony in D Major, which is still a favorite of the Prague public, although it has been heard here nearly a hundred times since.

The "Prague" Symphony is arguably Mozart's coming of age as a symphonist; it shows a new subtlety and suppleness in scoring and in the handling of form. The three great symphonies that Mozart produced during the summer of the year following—Nos. 39, 40, and 41—were the natural consequence of the creative inspiration that gave birth to the "Prague" Symphony.

The Symphony begins with a rather long Introduction marked Adagio. Its character is somber, even menacing; some commentators have remarked on the relationship of this Introduction to the "statue" music from Don
Among the dozen or so stereo recordings of Mozart's "Prague" Symphony, there is a good one for every taste. Lorin Maazel (Philips) uses a large orchestra and tends to romanticize the music. Daniel Barenboim (Angel) leads a chamber orchestra in an idiosyncratic account; and Otto Klemperer (Angel) plays the work "straight," but with vitality.

Giovanni, which Mozart was to compose soon afterward on commission from Prague. The main body of the movement, marked Allegro, begins stealthily and in a whisper in the strings. Again, the principal theme bears a resemblance to music from Don Giovanni, this time to the Overture. This theme is the prime material of the movement; the second subject is a graceful one that soon modulates into the minor. There is a vigorous contrapuntal development section. The slow movement, Andante, dispenses with trumpets and timpani, relying on the strings and winds alone to carry the lyrical outpouring. The opening has a sensuous chromatic quality, and throughout the movement there are many shifts of mood, with frequent plunges into the minor key. Overall there is a sense of deep sadness, but a sadness tempered by the strength and the sweetness that are the essence of the Mozart style. The last movement—there is no Minuet—is marked presto, and with it comes a complete change of mood: here all is bubbling and rollicking fun. There are moments of dramatic tension, but in the main the movement runs its course with vigorous and fiery enthusiasm. A delectable touch is the jaunty bassoon accompaniment to the second principal theme each time it appears.

Nearly a dozen different recordings of the "Prague" Symphony are currently to be found in record shops, and there is not an out-and-out failure among them. The outstanding performances, to my mind, are those by Daniel Barenboim (Angel S 36512), Karl Böhm (Deutsche Grammophon 138112), Colin Davis (Oiseau-Lyre S 266, 266), Otto Klemperer (Angel S 36129), Lorin Maazel (Philips 900158, recently deleted), and Bruno Walter (Columbia MS 6494; also in D3S 691/D3L 291, a three-disc set of Walter's performances of the last six Mozart symphonies). Böhm and Walter deliver readings out of the Middle-European tradition: they use rather large orchestral forces, and have a tendency to romanticize the music, with no apparent hesitation in caressing or lingering over a phrase here and there. If this is the kind of Mozart performance you prefer, then I would also recommend to you Maazel's recording—a large-orchestra version, full of subtle shadings and nuances, all meticulously planned and brought off in virtuoso fashion. Happily, the Philips engineers have surrounded the performance with a rich and mellow acoustical environment that neatly complements Maazel's rather lush approach. A final plus is Maazel's observance of the exposition repeat in the first movement. If you are interested, get this one before present dealer stocks are exhausted.

The Davis recording is on a more intimate scale. By virtue of the smaller forces used (the English Chamber Orchestra, playing most responsively), the textures are leaner and more open. And Davis takes a more restrained view of the music. Unfortunately, the recorded sound is not of the best, tending to harshness in loud passages.

This leaves the Barenboim and Klemperer recordings, my own nominees as the best. Barenboim's disc (it includes equally memorable accounts of Mozart's Symphonies Nos. 32 and 35) is an extraordinary accomplishment. Again it is the English Chamber Orchestra that does the superb playing, and even more palpably than in its collaboration with Davis, one senses the total commitment of its performance. And the strength of Barenboim's artistic personality wins me over—even when (as in the exageratedly held chord at the end of the Introduction) he might justly be accused of mannerism. Angel's recorded sound is a model of clarity and balance. Klemperer, though his is a more passive kind of involvement, also delivers a reading of intense vitality. In Klemperer's discography, which embraces nearly the entire standard symphonic repertoire, the "Prague" Symphony is one of the most memorable entries. Again, Angel's engineers have provided sound of great clarity and depth.

The latter performance is also included on an extraordinary single-tape reel (Y3S 3663, 3½ips) that contains Klemperer's readings of the rest of Mozart's six last symphonies. The "Prague" fares best of all, but Klemperer's views of the other five are also worth having. Aside from some occasional echo, the tape processing is satisfactory. Also available to tape collectors is the Walter performance (Columbia MQ 611), coupled with his last recording of Mozart's G Minor Symphony. The reel I heard had a rather high hiss level, but was otherwise a successful issue.

REPRINTS of the latest review of the complete "Basic Repertoire" are available without charge. Circle Number 160 on reader service card.
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The Stereo 80 and our PAT-4 preamplifier create an outstanding combination which delivers crystal clear sound, free of noise and distortion, and with excellent flexibility as the control center for the most complete hi-fi installation.

Further, we have combined these units into a single, transistorized integrated package, the SCA-80, and through careful design have achieved SYNERGISM®, the combination giving even greater value than the sum of its parts. The SCA-80 has all the qualities of the Stereo 80 plus the performance and many of the features of the PAT-4—center-out tone controls, low noise, multiple input facilities, headphone output, center-speaker output without the need for a separate amplifier, and so on. It provides complete control facility and yet it is simple to operate with a basic two-knob control action for those who do not require sophisticated features such as loudness, filters, blending, and other subtle variations.

The SCA-80 gives quality plus compact flexibility. The Stereo 80 plus the PAT-4 gives quality, increased flexibility for installation, and greater range of control function. The Stereo 120 plus the PAT-4 gives all this plus extra power plus the benefits of a stabilized highly filtered power supply which makes performance independent of power line variations. In all these choices, quality and value are outstanding—and in the SCA-80, the synergistic benefit enhances the value of the unit.

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How to recognize a stacked deck.
Our ears, it seems, are far from being perfect transducers; we ought therefore to remind ourselves from time to time that what we hear is often greatly affected by how we hear.

By CRAIG STARK

"If a tree falls in the forest where no one hears it, does it make any sound?" is an antique conundrum beloved by instructors in freshman philosophy. The answer, of course, depends on how we define "sound." If by "sound" we mean the alternating waves of compression and rarefaction of air particles which a woodsman, if present, would hear, the answer is clearly yes. If, however, we mean an aural sensation produced by the stimuli picked up by the ear, then the answer is no. Since both definitions are equally useful, though for different purposes, there is no real philosophical problem.

Let us complicate our question, however, by supposing that a forester leaves a battery-operated tape recorder running in the woods and later returns to find that he can now reproduce in his living room, at some later time, the "sound" of the falling tree. Most of us would now argue that whether or not he could hear the "real sound" of the tree would depend on the fidelity of his recorder and component system. But that is only half an answer, for one could still ask how clearly his aural sensations correlated with the sound waves coming from the loudspeakers. Questions such as this are the concern of psychoacoustics, a science which in the last century has made some rather startling discoveries about the relation between the sea of sound that surrounds us and our perception of it. And not until we can bridge the gap between the subjectivity of the trained, knowledgeable ear and the quantitative objectivity of the engineer's measurements can we really know what we mean when we talk about high-fidelity music reproduction.

The human ear is an extraordinary instrument. On the one hand, its sensitivity is so great that, to use the analogy of the noted physicist Alexander Wood, it will respond to a level of energy comparable to a 50-watt light bulb viewed at a distance of 3,000 miles. On the other hand, if one were to set a tape recorder's VU meter to read "0" at this threshold of audibility, the ear would not overload (yielding a sensation of pain rather
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<th>Sound Description</th>
<th>Pressure (dynes/cm²)</th>
<th>Decibels</th>
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<td>Threshold of pain</td>
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The Sense of Hearing, from a series of paintings on the subject of the five senses by Jan Bruegel (1568-1625), son of the more famous Pieter Bruegel I. Called the "Velvet" Bruegel, Jan was a collaborator of Rubens—as might be inferred from the steatopygic model in the middle foreground.

(European Art Color Slide Co., courtesy Museo del Prado, Madrid)
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BASSOON

Bb CLARINET

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VIOLENT

PIANO

GUITAR

CELLO

VIOLIN

WINDS

BASS (WOOFER)

TREBLE (TWEETER)

MID-RANGE

(possible ranges)

Lower limit of organ scale

Lower limit of ordinary piano scale

Middle C

Upper limit of organ scale

Upper limit of ordinary piano scale

20 40 60 100

500 1K 2K 5K 10K 20K

(possible ranges)
there is a frequency-response curve much inferior to that of most high-fidelity components, if given enough sound pressure, it is capable of responding to frequencies ranging from approximately 20 to 20,000 Hz. The upper frequency limit tends to vary considerably with the individual, generally being highest in young children and tending to decline (particularly among men) with age.

More important implications about the relation between what we hear and how we hear arise when we consider the low frequencies, for when sound with a frequency much under 20 Hz is produced, the ear does not perceive a tone, but rather a series of separate pulses. Waveforms with a repetition rate greater than 20 Hz (or 1/20 of a second, or 50 milliseconds, whichever you prefer) will be heard as a continuous tone. While experimental results vary somewhat according to the test conditions and the individual ear, it is well documented that sonic events lasting less than 50 milliseconds (50 ms) do not completely overcome the "inertia" of the hearing process. This affects both the perceived intensity of the sound and the ability to recognize a specific tone. Thus, a pure 2,000 Hz tone, if turned on for a period of only 4 milliseconds (ms), will not be heard as a specific pitch, but rather as a click. Down in this area where short tones are heard as clicks, a loud signal only 10 ms long will seem just as long as a weaker signal that lasts, say, 35 ms. This seems to occur because the ear responds to their equal total energy content.

As we investigate the subject we find that there are
many areas where the "obvious" relationship between the objective sound waves and the subjective perception of music does not exist. For example, Carl Seashore and other acousticians have reduced the objective measurable physical variables of sound to four: duration, amplitude (or intensity), frequency, and waveform. On the face of it these should correspond to the subjective sensations of time, loudness, pitch, and timbre. But here also our perceptions have no linear or direct correspondence to the objective sonic circumstance. This has important implications for high-fidelity reproduction. For example, even the subjective perception of the pitch of a pure tone depends not only on its frequency, but to some degree on its loudness. Research has shown that for low-frequency tones the pitch goes down as the intensity increases; and for high-frequency tones the pitch increases with intensity. At moderate listening levels, two pure tones of 168 and 318 Hz sound very discordant, but Harvey Fletcher (best known for his research with Wilden A. Munson) showed that if they are played loud enough, the ear hears them as a pure octave: 150 and 300 Hz.

Fortunately, the kind of distuning that takes place with pure tones does not so greatly affect our perception of the complex waveforms produced by musical instruments. As every audiophile knows, musical notes contain not only the "fundamental" frequency, but many harmonics or overtones as well, and the overtone structure establishes the timbre of the sound. A harmonic, sometimes called a "partial," is any whole-number multiple of the fundamental frequency, though it is sometimes mistakenly identified with the overtones that occur at successively higher octaves. Since an octave represents a 2:1 frequency ratio, the second harmonic is exactly one octave higher than the fundamental, but beyond this point the harmonic and octave sequence diverge. If an organism, for example, played a very low C (approximately 32 Hz), an overtone could, in theory, at least, appear nine octaves higher (16,384 Hz), but this would be the 512th harmonic! Practically speaking, of course, instruments are not likely to generate many overtones as high as that, but the importance of the number and relative strength of differing instrumental harmonics can hardly be overstated. (See Figure 3). The highest fundamental tones produced by a piano or a piccolo, for example, are less than 5,000 Hz, but switching in a scratch filter or turning down the treble control so that high-frequency response is lowered by even 3 dB at 10,000 Hz distinctly alters the perceived character of the instrument.

The sounds we hear even in a live musical performance are not all produced by the instruments, for the ear itself is a source of both harmonic and intermodulation distortion. The latter occurs when two (or more) tones of different frequencies are sounded simultaneously and totally new tones representing the sum and difference frequencies are created. As early as the eighteenth century the Italian violinist Giuseppe Tartini (known today primarily as the composer of the "Devil's Trill" Sonata) noticed that when he played two notes together he could distinctly hear a third tone, much lower than either. Thus, if he simultaneously played a B of 480 Hz and a G of 384 Hz, he could detect another G (96 Hz), two octaves below. The phantom sounds produced by such difference frequencies have been known ever since as "Tartini tones," though he was by no means the only one to discover them. About the same time the German organist W.A. Sorge found that if he played a musical fifth consisting of a C (32 Hz) and a G (48 Hz), he could induce the ear to perceive a C at 16 Hz, and this principle has been used by organ builders ever since, because it would take a rather costly 32-foot pipe to produce the
lowest C (16 Hz) in the bass register of the pipe organ.

Curiously, the difference frequency between two tones is much more audible than the sum frequency. But its subjective existence can be proved by any audiophile who can borrow a pair of audio oscillators and whose speakers have wide-range tweeters. Using a 1,000-Hz tone as a reference, plug one generator into each channel and adjust both for equal output from the speakers at normal listening level. Then shift the frequency of one generator to about 23 kHz and the other to about 24 kHz without changing the level settings. When either generator is operating by itself, nothing will be heard, for both frequencies are beyond the range of human hearing. (Your dog may get up and leave the room in disgust, however.) But when both generators are working together of the supra-audible harmonics which are present during the live experience but are lost through deficiencies of the recording process.

Along this same line, it has been suggested by researcher Charles J. Hirsch that the pleasurable richness we associate with consonant sounds and the unpleasant roughness we call dissonance is as much a subjective creation of the ear as it is an objective configuration of sound waves. Consider, for example, the following experiment. Feed into one stereo channel a tone of about middle C (261 Hz) from an audio generator set to provide a comfortable volume. Then adjust another generator to provide a 330-Hz signal at about the same volume through the other channel. With slight adjustment of one of the generators this will produce a pleasing, if somewhat musically dull, consonant major third (C-E). If the speakers are now replaced by a pair of stereo earphones, however, the harmonious blending of the sound will be entirely lost, and one will hear the two tones completely independently. Similarly, if one of the generators is adjusted to give a terrible dissonance (C-C♯) when heard through the speakers, the two tones will not sound at all dissonant when they are heard isolated from each other by the separate earphones.

Hirsch carried his experiment even further by having a cellist record the same musical selection in two different keys (kept in synchronism by a metronome) on the two tracks of a stereo recorder. When mixed together and played back through a stereo system the result was a predictable cacophony. Reproduced through stereo headphones, however, the two renditions were heard in isolation. 'Listeners describe the effect as if there were a wall in the middle of their heads that separates the two sounds," Hirsch reported. He then concluded that "the ears have largely independent effects on the brain, and that the brain does not combine tones, transmitted simultaneously but separately by the two ears, to produce harmony. Harmony, which includes consonance and dissonance . . . requires that the simultaneous component tones be combined in one ear . . . ."

In the performance of music, however, even highly trained listeners exhibit a degree of tolerance for slight differences in pitch or intonation that would be easily detected under test conditions in a laboratory. If two steady tones were sounded through our loudspeakers, one at 297 Hz and the other at 293.665 Hz, we would all hear the 3 to 4 Hz beat between them. Yet in listening to a violin and piano sonata we do not. The perfect musical fifth to which the A and the D strings of the violin are tuned represents a frequency ratio of 3:2, a fact which has been known since the time of the Greek philosopher Pythagoras in the sixth century B.C. But to
construct a piano that could modulate from one key to another while maintaining a Pythagorean or "just intonation" scale would require at least thirty separate intervals within the octave, an obvious impossibility. Thus, the octave on the piano is divided into twelve "equally tempered" semitones. Thus, while the violin and piano are in perfect unison at A (440 Hz), the dynamic life of the music itself disguises from our consciousness their slight discord at the D in the same octave.

The question of the slight indeterminacy of pitch perception during a musical performance brings us back to our discussion of how we hear the sound waves within that first 1/20 of a second (50 ms) that it takes for the ear to respond fully. In audio terminology we are accustomed to speaking of very short bursts of sound as "transients," but we generally associate them only with staccato passages or percussion instruments. This is an error, however, for every note in music (or every sound in speech) has a dynamic life of its own from the time of its onset to the time of its decay into inaudibility.

The importance of the onset transients of even the most smoothly-spoken orators or of legato passages in music can be dramatized very simply by playing a tape recording backwards, thus causing the initial transient to appear at the end of the sound. Owners of full or half-track stereo recorders can perform such an experiment very easily by turning a played tape over and threading it up again. Even with the much more prevalent quarter-track recorders one can achieve the same result, however, by playing through a tape and twisting it between the capstan and the take-up reel so that it is wound with the oxide side facing outwards. Then turn it over and play it through again, this time with the backing rather than the oxide in contact with the recorder heads. There will be some loss of volume and of the high frequencies, but the startling effect of the transients will still be audible.

Even though the ear is not fully receptive to very short transient sounds, we make significant interpretations on the basis of them. Consonants in speech, for example, are very brief, 5 to 15 milliseconds being typical for such sounds as p, t, or k. Yet speakers of English have no difficulty in distinguishing between the words part, tart, and cart although the actual phonetic difference between them is very small. As children we learn to perceive such very fine differences in our native language because they distinguish the meaning of words. The Japanese language does not use the phonetic difference between l and r to distinguish meaning in the way that English does (rang, lung), and consequently a Japanese person has great difficulty in hearing the difference between these two speech sounds.

In this context, consider the onset times versus the overtone structure of the instruments shown in Figure 4. The German acoustician Fritz Winckel has observed that the onset time of the trumpet is only about 20 milliseconds, but it takes 200 to 300 milliseconds for the tone of a flute to achieve a stationary character, and he states further that "the trumpet sound is especially rich in overtones, whereas the sound of the flute is not." Transient behavior, then, has much to do with the musical character of timbre by which we discriminate between one instrument and another. And for anyone who wishes to experiment along these lines, judicious tape editing to remove the initial transient in a musical tone should confirm Winckel's results: "A tuning fork, for example, was mistaken for a flute, a trumpet for a cornet, an oboe for a clarinet, a cello for a bassoon; but even more contrasting tone colors could not be differentiated, such as cornet and violin, or French horn and flute."

More anomalies than these could be cited to show that what we hear is often radically affected by how we hear. The subjectively perceived pitch, timbre, loudness, and duration just do not have a simple relationship to the objective frequency, waveform, sound pressure, and time. How then does this bear on our opening question about the falling tree? Does the woodsman hear the same

Suggested Further Reading

Some of the books that were of help in the preparation of this article—and that may be of interest to readers—are listed below in order of increasing difficulty:


Craig Stark, a contributing editor of *Stereo Review*, is the author of our monthly "Tape Horizons" column. His article on dynamic range in amplifiers appeared in the June 1968 issue.
Is There Any
MUSIC AT THE MOVIES?

WE PROBABLY DO TAKE OUR FILM SOUNDTRACKS RATHER TOO
MUCH FOR GRANTED, BUT SHOULD THEY BE MEMORABLE
IN THEMSELVES, OR ONLY FOR THEIR EFFECTS?

By PAUL KRESH

"Oh, my!" Emily exclaimed one evening recently, as we were taking our ease after dinner. I was sorting out ball-point pens, trying to separate the ones with ink from the dry ones—a job I had been putting off for weeks. Emily was going through the New York Times; and I could see she was about to indulge that most incorrigible of her habits: reading aloud to me from the newspaper. I waited, attentively but apprehensively. She had cleared her throat—it would probably be something important.

"Waves of magnificent sound," she read, "rolled through the Academy of Music on Fourteenth Street last night as Urhech Associates and the New York Theatre Organ Society presented "Sounds of the Silents," a program reviving the musical traditions of the heyday of the movie palace, a period that extended roughly from 1920 to—"

"Tell me in your own words," I interrupted her to plead. The Times' prose is so thorough.

"They fixed the organ," Emily said. "The Wurlitzer."

"That's nice," I muttered. I noticed that there was ink on my hands from a marking pen, the kind you use on laundry. I wondered how I would ever get it off.

"So they fixed the organ," I prompted, trying to show Emily I was on her side.

"Yes. It was built and installed in 1926. It's supposed to be one of the best theater organs in the city. Your fingers are full of ink."

(Continued overleaf)
I asked Emily what they had done with the organ after it was fixed, and she was only too glad to tell me. "There's this Lee Erwin," she explained. "He was the organist on the Arthur Godfrey show for twenty-two years. Before that he played the organ on Station WLW in Cincinnati for eleven years in the radio series Moon River, and Allen Hughes says he was excellent." She resumed her reading aloud. It seems that Mr. Erwin, at that memorable concert presented by the New York Theatre Organ Society, played the original score he had composed for The Eagle, a seventy-minute classic of the silent screen, in addition to which there was a screening of the Charlie Chase comedy Crazy Like a Fox and two Max Fleischer bouncing-balls sing-along cartoons. The affair had been so successful that the New York Theatre Organ Society was planning to restore other organs, including one at the Beacon Theatre on Broadway and Seventy-fourth Street, and another in Rahway, New Jersey.

I was duly impressed by all this, as I always am when Emily, having combed the Times for its most compelling revelations, presents me with the results of her researches. It set me to thinking about movie music and its evolution from the "sound of the silents" down to The Yellow Submarine. As I rummaged clumsily in the kitchen cabinet for some stuff Emily had suggested for taking off indelible ink, I mused on the range of movie music I had been exposed to over the years. It was hard to regard it all as an unmixed blessing.

Now, Emily and I love the movies. We would rather be at the movies than almost anywhere—even, on Sunday evenings, at home watching the Smothers Brothers (before they were scratched, that is). But I remember Emily reading to me once from an article by Dwight Macdonald, in which he expounded the theory that with each new technological development the motion picture had to give up another aspect of its original flexibility. The advent of the talkies certainly did not please everyone. After seeing his first sound film in 1927, Sir Thomas Beecham is supposed to have exploded: "Now there is no place one can go and hear nothing!" And I vividly remember a song my father used to play on our wind-up Victrola when I was a child. The words went like this:

Guns go off and whistles blow,
Music through the whole darned show,
I can't sleep in the movies any more.

The truth is, movies have never been really silent. Music, Emily tells me, was first brought into the movie house for practical reasons. There was no sound-proof wall between projector and audience in those out-of-the-way halls of London and New York where the cinema first found its public around the turn of the century. Something had to mask the racket made by the projector. And so—before those celebrated pianists in gartered shirtsleeves were hired—hand organs, music boxes, and phonographs were used. Music also helped to solve a peculiar problem of mass psychology: crowds seemed more willing to listen and watch silently than just to watch in silence. Music kept the ears of audiences busy and so kept their mouths from flapping.

In the early years of this century, however, experiments with mechanical reproduction were abandoned in favor of the movie-house pianist and, still later, increasingly elaborate theater orchestras. The problem of what to play was solved through the compilation of extensive cinema-music libraries. There an enterprising arranger could find
every sort of score to meet a movie's requirements. Under "tension-misterioso" he could look up suitable passages for "night: sinister mood" or "night: threatening mood," or "magic: apparition," or "impending doom." In the famous Kinothek in Berlin, for example, under the heading "tension-agitato," the file offered music for "pursuit," "heroic battle," "disturbance," "unrest," "terror," "disturbed masses," "tumult," and three varieties of "natural cataclysm." Climaxes ("appassionato") were available in six smashing varieties—from "despair" to "bacchantic." It was all a long way from Dimitri Tiomkin, but it was certainly heading in that direction.

Soon there arose maverick pit conductors who turned up their noses at stock music and preferred to accompany movies with fragments from Debussy and Tchaikovsky, and from there it was a short step to calling upon composers to invent original scores. Edmund Meisel, who wrote the music for Sergei Eisenstein's Potemkin, was outstanding among silent-film composers. Richard Strauss came to the Dresden State Opera House to conduct the orchestra for a performance of his opera Der Rosenkavalier on film, but he gave up in rehearsal after trying to keep things synchronized and turned his baton over to a professional movie conductor. A few distinguished composers, notably Arthur Honegger, tried their hand at composing for the silents, but no masterpieces came of it—although it might be fun to hear Darius Milhaud's Actualités, take-off on old newsreel stereotypes.

We all know what happened next. Al Jolson made The Jazz Singer in 1927, and the sound of Vitaphone was heard in the land. Actually, The Jazz Singer and The Singing Fool got their sound from ingenious couplings of the projector with sixteen-inch phonograph records that, in speed, were precursors of the modern LP—they played at 33 1/3 revolutions per minute. Records wore out fast in those days, though, and synchronization was a tricky business. A few years later this method was replaced by putting the sound on a strip running along the side of the film itself. The impulses on the soundtrack were then translated into music, sound effects, and the clichés of Hollywood dialogue in a way that I could not possibly make clear to you, since I do not understand it too well myself, and neither does Emily.

Concurrent with this development was the growth of the theme song as a device to soften up the audience for the action to come while the credits were gotten out of the way. The use of this device soon reached epidemic proportions, and threatened to hold up the action of movies indefinitely. So the industry, in its wisdom, began to fall back on what has been its Golden Rule ever since: movie music should be there, but not heard. Movie music, any old Hollywood pro will tell you, "must not call attention to itself." The "Thou Shalt Not Be Heard" commandment may be one reason why only a handful of major American composers have written for the medium, though England's greatest symphonists—William Walton, Benjamin Britten, Arthur Bliss, Arthur Benjamin, and Ralph Vaughan Williams among them—have produced distinguished motion-picture scores. Honegger, Milhaud, and Georges Auric have all written music you could hear in French films, and Prokofiev and Shostakovich have constructed mighty works, of varying degrees of vulgarity, to enliven the movies of the Soviet Union. Of course, we Americans can point out to foreign detractors that Gershwin wrote his Second Rhapsody—"Rhapsody in Rivets"—
—for a Hollywood movie, that Aaron Copland contributed lovely scores to Our Town and The Red Pony, and that Virgil Thomson’s music for the documentaries The Plow that Broke the Plains, Louisiana Story, and The River are classic achievements.

But what of the rest? It is there, but are we really not supposed to hear it? Kurt London puts it in a nutshell in his book Film Music, “Absolute music,” he says, “is apprehended consciously, film music unconsciously.” No wonder, then, that it is all so difficult to remember when you leave the theater. Yet certain exceptions to this dogma are permitted in movieland. A few classical pieces have found their way into the inner sanctum, and may be used as mood-setters. There was a time, not many years ago, when portions of Rachmaninoff’s Second Piano Concerto were used as the accomplishment for almost everything. Emily and I wiped our eyes to its strains throughout Noel Coward’s Brief Encounter and perhaps a dozen other pictures of the period. In the newsreel days, I don’t think you were allowed to show a horserace unless it was accompanied by the breakneck passage from Ponchelli’s Dance of the Hours. Beethoven’s Für Elise was always heard whenever Spring Byington approached the spinet in the drawing room of her Southern mansion, and you knew that all would not be tranquil for long: Bette Davis or the Civil War was bound to break out any minute. There was a time, too, when you could not start a movie about London without a little scene-setting—the Knightsbridge March from Eric Coates’ London Suite, for example.

Other movies have been made in Hollywood for which it has been found necessary not only to draw on the classics, but to make certain alterations in the process. In our long years of moviegoin, Emily and I have come to appreciate the limitless ingenuity with which a Hollywood arranger can improve a masterpiece. Everything Mendelssohn wrote for A Midsummer Night’s Dream was used in Max Reinhardt’s tremendous movie, which touched the heights and sank to the depths as it forged its way through Shakespeare’s fantastic comedy, and the producers were even magnanimous enough to call in Erich Wolfgang Korngold to touch up the orchestration a little and provide a couple of transitions which Mendelssohn had thoughtlessly neglected to compose. We’ll never forget too that marvelous movie laid in Mexico—with Esther Williams as a lady bullfighter—which used Aaron Copland’s El Salón México (composed in the movie by an aspiring young Mexican genius, Ricardo Montalban). Almost all of it was played before the movie was over, but in an updated version for piano and orchestra by Johnny Green, the composer of Body and Soul. Perhaps the most ingenious use of a piece from the standard repertoire was Walt Disney’s commandoering of The Rite of Spring, Stravinsky’s ballet about savages in pagan Russia, to illustrate evolution in his movie Fantasia. (In a state close to shock, the composer is reported to have murmured, “This must have been what I meant in the first place.”) To make the piece fit the action, Leopold Stokowski, the conductor for the film, cut and rearranged the score and tactfully eliminated the earthshaking Dance of Death at the end.

In the long evolutionary climb from the Tara theme in Gone with the Wind (1939) to Lara’s theme in Dr. Zhivago (1965), one of the most striking developments has been “original” music by composers schooled in the technique of putting together a patchwork for giant orchestra and chorus, composers who unabashedly thank Tchaikovsky and Rimsky-Korsakov when they walk off with an Academy Award. Perhaps the most wonderful thing about this group of Hollywood composers has been their names: Daniele Amfitheatrof, Dimitri Tiomkin, Bronislau Kaper, Miklós Rózsa, Erich Wolfgang Korngold. And their music is almost as resounding as those grand monikers themselves. What would a screen epic be now without its all-engulfing heavens and swells of sonic overkill? And then there is Max Steiner, who is practically a whole industry in himself. He was at one time virtually the court composer for Bette Davis. Emily and I will never forget the welling up of those great oceanic passages in such movies as Old Acquaintance, in which suddenly Miss Davis wasn’t listening to Miriam Hopkins any more (or was it the other way around?) and the dialogue was drowned in the subjective turbulence of a Steiner score.

He has always favored a kind of leitmotif, haunting in its way, as for example the themes for The Letter and Since You Went Away. He wrote a poignant score of finesse and restraint for The Informer, a harrowing one for King Kong to climb the Empire State Building by, and two hundred and eighty-two episodes, with separate themes for every character from Scarlett to Melanie, and every twist and turn of the plot, for the three-hour production of Gone with the Wind. Despite its longeurs and pretensions, Steiner’s score for that recurrent movie classic is much admired, and is still broadcast often, along with such handy perennials as the score for Spellbound, the suspenseful monotonies of Francis Lai’s music for A Man and a Woman, Richard Addinsell’s Warsaw Concerto (composed for a forgotten film named Dangerously Moonlight), and such other favorites as Ernest Gold’s pseudo-Hebraic theme from Otto Preminger’s movie Exodus, John Barry’s theme for Born Free, and More from Mondo Cane.

Much movie music is hard to hear even if you try—the louder it is, perhaps, the harder! In movie musicals, on the other hand, you’re supposed to hear the music and—one hopes—be able to recall it afterwards. Only a few days ago, Emily bought one of those 900-page illustrated volumes of the talking picture, and it would be pleasant to pause here and reminisce at length about all those wonderful Saturday afternoons spent watching movie
musicals from *The Broadway Melody* of 1929 to last year's cartoon masterpiece, the Beatles' *Yellow Submarine*. How could we forget those magic moments when Alice Faye, after a single glance at the score of a brand new song, set the music aside and overwhelmed us with a perfect run-through? How could we ever forget the happy hours we spent listening to those little songbirds MGM used to raise on their back lot in special cages—Deanna Durbin, Jane Powell, Kathryn Grayson—whose little heartbreaks could be washed away with an ice-cream soda and a few kind words from "Cuddles" Sakall? It would be fun to linger over all the forgotten moments Emily reminded me of—that Ruth Chatterton sang and Nancy Carroll danced in Paramount's *On Parade*; that Bebe Daniels and John Boles were warblers together in *Río Rita*, and even Pola Negri sang in *A Woman Commands* (the song was *Paradise*). But the world of Nancy Carroll, Buddy Rogers, Fred Astaire and Ginger Rogers, of Eddie Cantor and Fanny Brice, of Jeanette MacDonald and Nelson Eddy, of Ruby Keeler and Dick Powell, Bing Crosby and Dorothy Lamour, Bob Hope, Frank Sinatra, Judy Garland, Gene Kelly, and Busby Berkeley, however real it seemed at the time, is gone. It was a comforting lotus land, and so were its songs, from Rudolf Friml's to Richard Rodgers': a new generation is discovering it today on television.

The current crop of Hollywood musicals—especially movie "adaptations" of Broadway shows such as *Half a Sixpence* and *Sweet Charity*—is getting bigger, louder, and shinier all the time, and losing most of the charm of the originals in the process. The screen musicals Emily and I remember most fondly were written especially for the movies and weren't adaptations at all: *Singin' in the Rain*, for example, with its marvelous score by Herb Brown and Arthur Freed; *Seven Brides for Seven Brothers*, MGM's Western-style version of *The Rape of the Sabine Women*, with music by Gene de Paul—you didn’t exactly go out of the theater whistling it, but it was enormous fun while it lasted. It would be pleasant, too, to linger awhile on the music of those animated cartoons in which the invincible victim arose unscathed from the most vicious sadistic attacks to the sound of a fox-trot. But these are lost worlds too.

In his book *What to Listen for in Music*, Aaron Copland asserts that most of us movie-goers take the musical accompaniment to dramatic films too much for granted. He reveals that the Hollywood producer, far from considering music unimportant, often secretly hopes that a good score will save a second-rate picture. Copland lists the ways in which music serves the film: the creation of "a more convincing atmosphere" and the evocation of "time and place"; underlining the unspoken thoughts of a character, or the unseen implications of a situation; filling in empty spots, such as pauses in conversation; building continuity; and rounding off the experience—i.e., the music "that blares out at the end of the film."

Emily and I believe that movie music also serves certain other, even more fundamental, purposes. It has to announce to the people waiting in the lobby when the movie is over, so they may begin their rush for seats. It must tell them when the picture starts so they can begin to rattle their candy papers, and also, especially in these times, when the credits are liable to pop up anywhere and go on for any length of time, tell them when the action is really under way. It must also tell them when the end is coming so that they can slip their shoes back on, push their way out to the aisle, and beat everyone else to the door before the rush. And today's movie-goer may wander in at any point: how is he going to catch on fast to earlier...
development he has missed? The music will fill him in. Emily boasts that she can close her eyes, listen to the music from any American movie, and recognize at once the nature of the action. As a matter of fact, the movie addict, whether he gets the stuff at movie houses or at home by way of television, could probably provide from memory a suitable score for every occasion in his own life, from trying to start his car on a freezing morning to the big scene when his wife threatens to go home to mother. It is built into us through long years of repetition and "unconscious apprehension."

Recently, movie critics have been demanding that movie music change with the times—that such groups as the Jefferson Airplane and Moby Grape be given their day on the screen as they already have been on television. No doubt the inevitable result of this will be the watering down of originally fresh and rebel styles in order not to offend nervous middle-class ears. Already we have had Simon and Garfunkel singing their songs throughout The Graduate, but this was in some ways more distracting than helpful. And the Quicksilver Messenger Service, the Steve Miller Band, and Mother Earth combined forces to whip up a storm of a rock-and-roll score for a movie called Revolution, but that film went—or sank—underground.

Meanwhile, what we get are Burt Bacharach (What's New, Pussy Cat?), The Desert Fox); John Barry (The Ipcress File, The Knack, Born Free); Elmer Bernstein (The Man with the Golden Arm, The Magnificent Seven, A Walk on the Wild Side, and The Ten Commandments); Neal Hefti (Barefoot in the Park); Quincy Jones (In the Heat of the Night and In Cold Blood); Henry Mancini (Breakfast at Tiffany's, The Pink Panther, and Hatari); Johnny Mandel (I Want to Live and The Sandpiper); and Leith Stevens (The Wild One and many an eerie score for science-fiction movies). These fellows all show a notable chic in combining a jazz beat with symphonic expansiveness and lush instrumentation. In the contexts for which their pastiches are assembled, they are serviceable, very much in the old tradition, with a little fresh make-up applied to make them sound more "with it." But separated from the film and served up on original soundtrack discs, they are exposed in all their wearying sterility. These "new" composers, like their predecessors, are excellent craftsmen who know exactly what they are about. And that is the trouble. Chaplin could whistle a score into existence (Modern Times, The Great Dictator), one that was fresher and apter in its directness and simplicity than all the exertions of these latter-day champions who are always skilled but so very rarely inspired.

What Emily and I remember from movies is music not at its catchiest or most tuneful, but the effect of music in the right place: Bernard Herrmann's score for Citizen Kane; Virgil Thomson's idiomatic contributions to those already-named classic documentaries; Aaron Copland's bucolic excellences for The Red Pony (Westerns now-adays lean heavily on warmed-over imitations of Copland); Georges Auric's music for the films of Jean Cocteau—as well as such brilliant strokes of Cocteau's own as the way he brought in Vivaldi to heighten the dream sequence in Les Enfants Terribles; the Waltz (I can't recall who wrote it) that expressed all the yearning, frustration, and nostalgia in the ballroom scene of Carnet du bal; Honegger's dazzling virtuoso music for the original nonmusical version of Pygmalion; the song that was a plot element in Alfred Hitchcock's The Lady Vanishes; Arthur Bliss' scary score for the movie of H. G. Wells' prophetic Things to Come; the way a piece was used—it was a rhumba by Xavier Cugat, I believe—in Ben Hecht's Crime Without Passion at the perturbing ironical climax; Leonard Bernstein's galvanically charged musical continuity for On the Waterfront; Nino Rota's orgies of instrumentation for La Dolce Vita and Juliet of the Spirits; Stanley Meyers' inventive, searching score for the Irish movie of Joyce's Ulysses.

Movie music is at its best when it is written for the purpose for which it is played, knows its place, and does not just drone on monotonously in order not to be heard. It is only when it tries to give itself airs—when Bacharach is exalted over Bach, and Miklós Rózsa over Handel, when the tramp of movie music decks herself out in the ill-fitting raiments of her older sister art—that it truly repels movie-goers like Emily and me. Good movie music need not be self-effacing; it can be as big as William Walton's for the battle scenes in Henry V, as long as it is real music, celebrating real emotion—whether through full orchestra, through Harpo Marx's harp, or through the harpsichord of John Addison's tingling score for Tom Jones. We have no objection to raiding the classics, either, when they're deftly matched up to the action, as in Stanley Kubrick's 2001—A Space Odyssey, in which excerpts from recordings of pieces by Richard and Johann Strauss and others serenaded us during the space trip (are we headed back to the Kinothek?). But it can be done.

We adored Elina Madigan and rushed right out to buy Mozart's Piano Concerto No. 21 so that we could hear again the second-movement theme that had moved us to tears in the movie. To our consternation, we found out that there are twenty-six other concertos by the same composer. We are appalled at the possibility that, somewhere in Hollywood at this very moment, some producer who has made the same discovery may be thinking to himself, "Now, the opening of Number 20 will be just groovy for that rape scene, and for the theme song for Lovers of Catherine the Great there oughta be something in the 'Coronation...'"

Paul Kresh, contributing editor of Stereo Review and staff expert on Gilbert and Sullivan and Broadway shows as well as movie music, is described in greater detail on page 122 of this issue.
You may or may not have already identified Geza Anda to your satisfaction as something other than a distinguished Hungarian-born Swiss concert pianist. Until recently the odds were against your knowing much more than that about him, but Mr. Anda's identity has suddenly been swept into much sharper focus. In defiance of all mass aesthetic preferences (not to mention our mass merchandising habits), Mr. Anda has recently spent a number of months "at the top of the charts.

A less likely chart-topper than Mr. Anda would perhaps be hard to find. He doesn't even know a gaga. He is clean-shaven, his ears are visible, he wears nary a bead or bauble, his linen is immaculate. Most damning of all, he is frequently seen out-of-doors in broad daylight—he skis, for God's sake. Moreover, the tune that Mr. Anda has kept near the top of the charts for nigh onto a year comes from his Deutsche Grammophon recording of Mozart's Piano Concerto K. 467, and the "Elvira Madigan" love music that has had the nation weeping into its beer was composed by that far from corny Viennese melodist in the year 1785.

The odds against this ever happening were of course incalculable. The Pop Establishment has often before raised the longhairs for its tunes—whill ever forget Chopin's "Till the End of Time" or Rachmaninoff's Full Moon and Empty Arms? But, with one exception, our jukebox fantasy life has been kept safe until now from the probing humanism of Mozart. The exception was in an Eighteenth-Century Drawing Room, a tune swiped in 1939 from the well-known Piano Sonata in C, and a very profitable little novelty number it was, making us think of quaintsy candlelight and tinkling harpsichords. But that was a far less serious offense than bewitching the U. S. art movie public with something as unturned-on as the Andante of K. 467.

Recently I took occasion to investigate the extent of Mr. Anda's complicity in this perverse enterprise. I asked him how he managed to bring it off.

"But I didn't," he protested. "I had absolutely nothing to do with it. In fact, I was more surprised than anybody. My manager phoned me from New York in great indignation. 'Firse,' she said, 'now we are playing music for the movies. It would be nice if maybe a girl didn't have to find out these things for herself.'"

"Movies?" I said. "What movies? I simply didn't know. You see, it was the idea of the director, Bo Widerberg. He needed some love-music for Elvira, and the really inspired thing was his discovery that love-music is exactly what the Andante of K. 467 is. It happens that I could not agree more with Widerberg's opinion, but he was the one who had to demonstrate it.

In any case, my recording of K. 467 is not new, being in fact six years old. It was actually the third recording in my Mozart series, and I was pleased that Widerberg selected it because it is one of my favorites—I mean as a recording, since it was the result of one of those happy occasions when everything fell together and combined exactly right: the piano, the orchestra, the engineering, the whole mood, the ambiance."

In his Mozart concertos, I noted, Mr. Anda performs both as soloist and as conductor. Did this circumstance contribute to the happy unity of effort (and effect) that he spoke of?

"Yes, and particularly in view of my somewhat unorthodox ideas about Mozart. To begin with, I am always surprised when people are surprised that I want to conduct the concertos. Why shouldn't a pianist do this? I distrust the late nineteenth-century tradition that specializes these activities. In Mozart's time a competent musician was expected to do both. Even much later—in Liszt's time, for example—this was still true. Liszt obviously felt obliged to do everything."

I expressed curiosity as to the "unorthodox ideas about Mozart" that Mr. Anda had mentioned.

"I think the important thing is to realize that the conventional view of Mozart is a case of outright misrepresentation. 'Classical' is no longer a serviceable word for this music—it no longer signifies a realistic approach to it. I disagree even with some eminent musicologists, whose ideas of proper Mozart playing do nothing but confine and diminish it. You might say Mozart has been kept in a kind of interpretive prison, and this has made it terribly difficult for us to grasp him in his modern aspect. Each generation must do exactly what, of course, or no interpretive breakthrough is possible. What you really have to do is go back to the music itself without preconceptions and read what is there. And when you do this you find that there is nothing small-minded about it, or small-hearted either. The concertos turn out to be big expressive works, and today especially I think it is important to make both the bigness and the expressiveness very clear."

To judge from Mr. Anda's concert schedule and his reviews, his notions of big-scale Mozart are meeting with widespread approval. There are small signs, however, of a revolt against the you-know-who concerto. The Chicago Symphony, for one, isn't buying any. "We will have Anda," says the Chicago manager, "in spite of Elvira Madigan," and at present writing it appears that Mayor Daley's bailiwick will hear the pianist in something a little less inflammatory.

Robert Ofbergeld
PIERRE BOULEZ
of the New York Philharmonic

By JAMES GOODFRIEND

PIERRE BOULEZ is to be the new conductor of the New York Philharmonic. To many, his appointment, beginning officially in 1971, seems a stroke of unexpected luck, an unexpectedly brave and imaginative decision by the directors of the orchestra. To others, it has become strictly a wait-and-see affair; Boulez already has his detractors. But to all, including perhaps Boulez himself, the appointment has come as a surprise. Not that anyone officially connected with the New York Philharmonic ever publicly indicated a preference for anyone else (Boulez, when I asked him this past March who would get the post, replied that the directors of the orchestra had not taken him into their confidence on the matter). But Boulez himself had indicated countless times, in public and private, that he would not—could not—take on the post were it offered to him, because of an overstock of previous commitments. Those commitments include the Directorship of the BBC Symphony, the post of principal guest conductor with the Cleveland Orchestra, numerous already scheduled guest appearances as conductor, teacher, and lecturer with a multitude of musical organizations, and... well, of course, M. Boulez is, after all, one of the world's most influential living composers, and composing takes a lot of time.

In spite of the serious obstacles to such a course of events, the New York Philharmonic found itself able to offer the position of Musical Director to Boulez, and Boulez (probably with considerable pressure from Columbia Records, which records both him and the Philharmonic) found himself able to accept. The "takeover" will be a gradual one. Boulez will conduct only eight weeks in 1971, expanding to seventeen weeks the following year. But New Yorkers should have something unusual to look forward to, a musical reign quite distinct from any that have preceded it. M. Boulez, a charming but businesslike man—like a locomotive under tight control—has strong and, perhaps, surprising opinions on music. He expresses himself very directly, and he is not at all afraid of being quoted.

M. Boulez speaks quickly in not quite perfect English (his exact words have been changed slightly here to be more comprehensible as written English) but he communicates and convinces through the sheer power and logic of his argument. His manner is informal and yet intense.

"You know, for me conducting is not really very important since I don't want to have a career as a conductor. That I do conduct came about more through circumstances than out of my own desire. But, I think, much more important to me is the job of musical director—to be a composer and a musical director at the same time, and to be able to have enough authority to really make musical life more coherent than it is now—because I find that presently there is such a distance between performers and conductors generally—and composers—and this discrepancy is not healthy."

"And then there are two different parts to music. You have the museum part of music which always has to be cared for, as you have to take care of the Rembrandts in a museum, or something like that. And you have the creative part. These are two completely different aspects. Most people in musical life are entirely preoccupied with the first, so conductors really have no impulse to meet composers and to participate in the creative life. I think this is a very unrealistic situation. And what I want to do, now that I have the knowledge of a conductor, is to go forward to the conception of a musical director. Because while it is always very interesting to bring out pieces which are still not part of the repertoire, and to promote them as part of the repertoire, that's only just coping with a kind of delay—a delay that is real enough today, you know, between the audience and the orchestras and the music that was written fifty years ago. But that's not yet being really alive and creative, because you just sort of bring people up to date—you don't really push them into the life of today, the art of today. What I want to see is that these pieces—let's say, these classics of the twentieth century—are really accepted, not just by composers, but by orchestras and by audiences. Then you can go forward under much better conditions."
This conception of a “musical director” is a new one. M. Boulez was asked how it will fit into concert life as we know it today.

“Well, it does not fit. That’s the problem, you know. Because I think that the organization of concerts, not just in this country, but in any country, is too stiff, too unreliable. You rely only on the regularity of subscriptions, and that is not enough because you have no contact between the audience and the music. You know, subscribers go weekly or twice a month to a concert, and you notice—and wonder—that the audience is getting older and older, and you see that there are no young people really attracted by the programming, by the musical life offered. I can understand this very easily, because the form of musical life now is essentially one that relates to the beginning of the century, not to today. And even under the best technical conditions—I mean if the performers are very good—that’s not really a musical life that will attract and involve young people. There is a very formal aspect to the concert in the concert hall which young people despise, and, in my opinion, rightly. It is a social event, and more than that, a part of the mores of a tribe to which they do not belong and do not desire to belong. And therefore, I think that musical life, generally, has to be organized on two levels and in a very different way: first, in the programming, and second, in where the concert takes place. I do not know how to do that yet, but I will study it for—and in—London. But I do think it’s necessary to have contact with the audience; just to meet for two hours and hear music and it’s finished—that’s not enough. So, for instance, after a concert I may discuss with the audience, practically and theoretically, the works I have just performed. And I think that’s very important: not to isolate the product, offer it as finished and ready-made, but to involve the audience in the making of the product so that the famous ‘gap’ between audience and orchestra, between audience and music, can be closed.”

At a recent concert in London, with the London Symphony, M. Boulez, after intermission, gave a talk of about fifteen or twenty minutes on the music performed. The concert was made up entirely of music by Berg, Webern, and Schoenberg. The Royal Festival Hall was, perhaps, three quarters full, and the audience response, to both the talk and the performances, was very strongly enthusiastic.

“In many performances of contemporary music that you hear you have absolutely no idea of the content because the work is so poorly performed. I am not ready to make that kind of compromise; I prefer to make progress slowly, to devise programs carefully. I think that if the music itself is called controversial, there must be absolutely no controversy possible about the playing of it. The controversy must be only about the content.

“But to get back to programming. I find that orchestral subscription series try to feed everybody with the same kind of food. In my opinion it’s completely ridiculous to devise programs of very conventional pieces and to have just a very spicy hors d’oeuvre or middle section which is completely irrelevant. This is a problem of taste, of education, and of time. If you don’t have sufficient time, say...well, let’s speak in terms of real figures: if you have a new work you want to do—a really difficult work of twenty or twenty-five minutes—you devote two and one half rehearsals out of four to this piece. But this gives you only twenty minutes of your eighty-minute concert. So you have to fill another sixty minutes and you have to rehearse the music for it fully in one and one-half rehearsals. What you do is choose the most conventional pieces, pieces that the orchestra knows and which therefore don’t require any work. So the result is a program that is three-quarters very conventional and one-quarter very original. Then what does the audience think? The young audience comes for the twenty-minute work. What do they think of the other sixty minutes? A bore, a disaster. What about the other part of the audience? They think the twenty minutes are silly and not worth the listening. Well, then you have shocked and upset everybody while making not a single relevant point in your concert. Therefore, I myself refuse to do this kind of program.

“My position in the musical world today is really very uncomfortable because I have a very intellectual side, let’s say, and I have a very practical side also. I do not want either of these sides to be frustrated; I want a conjunction of these two sides—and not just in myself, but in the world of music. Therefore, it is a very difficult situation. Perhaps I would prefer to be a pure intellectual because that is much easier; you just sit in your home writing or thinking or whatever you want to do. But there is a necessity for communication, and I think anybody who says the contrary is not being honest with himself. Maybe I have a greater gift for communication than other people, just from a purely practical and technical point of view. And I think I must share this gift by communicating not only with my own compositions but with the compositions of others. Therefore, for a long time, since 1953 (when I was twenty-seven or twenty-eight), I have tried to promote contemporary music, to have it performed. I think that for an audience to discover composers thirty or forty years after the fact is absolutely nothing. It’s better than never discovering them, but it’s not exciting at all. If you discover things while they are in the making process—that’s interesting, because you have the impression that you are participating, that you are active in the cultural life. The problem for the composer is to communicate. But the way of communication must be open all the time.”
CURFEW MUST NOT RING TONIGHT

. . . Out she swung—at last; the city
seemed a speck of light below,
There 'twixt heaven and earth suspended
as the bell swung to and fro.

Poetic declamation is no longer
fashionable in English-speaking
countries, but many will nonetheless
remember Rose Harvick Thorpe's
heart-tugging tale of the lovely
Bessie, who saved her lover from
execution during the English Civil
War by silencing (in a most unusual
way) the bell that would have
sounded his doom. (The ending
is a happy one.) The model in
this mixed-media representation
was Mrs. Charles Watson of the
Royal Dramatic College.

BELLS, BELLS, BELLS

DESPITE—OR PERHAPS BECAUSE OF—ITS
UBIQUITY AND LONG HISTORY, THE
INSTRUMENT THAT MAY WELL BE OUR
MOST COMMON MUSIC- AND
NOISE-MAKER SELDOM GETS
OUR UNDIVIDED ATTENTION

By FRITZ KUTTNER

FRIEDRICH VON SCHILLER, the great eighteenth-cen-
tury German poet, playwright, and philosopher, once
wrote a famous but rather dreadful ballad called
Die Glocke (The Bell). It is educational, edifying, 425
lines long, and very dull. I know, because I was one of
millions of German high school youngsters born be-
tween 1820 and 1945 who had to learn the whole darn
thing—all 425 lines—and recite it from
memory in class
or even in assembly hall. What is worse, we were all
brainwashed into believing that Die Glocke is one of the
time masterworks of German lyric poetry. Like hell
it is; but it took most of us several decades to shake off
this silly notion, and millions of Germans today still be-
lieve what their teachers told them in 1932 or thereabouts.

Looking back today, I feel a sense of gratification that
Schiller knew as little about bells and bell-making as
most other writers who left to posterity their lengthy

poems, essays, or books on the subject. If he had known
a fair number of basic facts about bells, his poem might
easily have become an unspeakable apocalyptic horror of
425 stanzas, and the suicide chart for German teen-
agers would have reached the height of the Van Allen
belt. For bells, my dear Friedrich—may you rest in peace
—can claim the longest history of musical and non-
musical noise-making known to mankind. For 3,300
years they have been made of any material that lends
itself to the task, except, perhaps, hardened jello. They
have served many believable (and some unbelievable)
purposes and have been cast, pounded, and carved into
every solemn, grotesque, or fanciful shape of which the
human imagination is capable. No other musical instru-
ment encompasses so great a range of sizes and sounds,
from ½ inch to 60 feet high, from almost inaudible
tinkle to quite terrifying boom. And, it is just this
enormous variety of forms and sonic outputs that reduces musicologists and musical campanologists to a tizzy, for it often seems impossible to say whether a given selection of "bells" might not better be classified as gongs, drums, tubs, or vessels—and that funny flat one hanging from its strap perhaps as a cymbal.

Most people tend to think of a bell as something cast in bronze, shaped "like a bell," with a clapper hanging down inside it. Schiller thought so too, and that shut him up at line 425. But, to tell the truth, a bell is a thingamajig made of bronze, copper, iron, silver, nickel, gold, brass, glass, fired clay, porcelain, bamboo, wood, bone, stone, gourds, or even lobster shells. It may look like a saucer, like part of a sphere, like a vase, like a flower, a disc or plate, a cylinder, or a cup with a short pipe-like handle that permits it to be mounted on a stick. It can even look like a bell, and then the bell experts can take the rest of the day off. But if it looks like anything else, classifying trouble is bound to arise, for all the learned and accepted classification systems tend to break down at some point or other. You can classify by acoustical principles, sound characteristics, shapes, functions, by the way the instrument is sounded, or by various other methods, and still run into trouble. A given unusual specimen could fit into one category under the rules of System No. 1, but into an entirely different category under the rules of System No. 2. The variety is so enormous that no method is really conclusive, and in the end you wind up with the inescapable conclusion that classification, not an exact science anyway and often no more than a semantic convenience, serves no useful purpose here.

Classify we will, however, and the most recent trend among musicologists is to group musical instruments by function rather than by shape or acoustical properties. It doesn't work with bells, for a survey of bell functions yields as bewildering a diversity as their sizes and shapes do:

Religious rites and ceremonies: Calling people to church; bell ringing during the liturgy or to announce the beginning or end of services. Sounding for baptisms, weddings, and funerals. As used in some wedding ceremonies, to indicate whether the bride is known (or believed) to be a virgin. (In the negative case, a minor bell has occasionally been used rather than the big main bell reserved for the 100 per cent immaculate.) There are also bells that call Tibetan or Buddhist monks to their prayer vigils.

Time-keeping: Striking the hours (and parts thereof); ringing the watches on shipboard; alarm clocks; bells or bell-like sounds in wall and floor clocks (a cuckoo, at least, is not a bell).

Communications and warnings: Announcing a storm, a fire, a pestilence. Attracting attention to the town crier’s announcements or a salesman’s offerings (the ice-cream Man cometh?). Also fire-truck bells, train bells, court bells, school bells, door bells, telephone bells, and bell buoys.

Health protection: Bells rung by lepers and other disease carriers, or jingles hanging on their clothes, to warn others against infection.

Protection of property: Bells to ascertain the whereabouts of domestic animals, from cattle and sheep to cats and dogs, depending on the agricultural conditions of a given region. Bird scares; protection against evil spirits; camel and elephant bells.

Just playing around: Small bells or jingles, tuned or untuned, hung in the wind to make pleasant musical or nonsensical sounds by themselves (Question for smart alecs: Do such wind bells make “music” or not? Can it be music if the wind and not a musician, produces the sounds? Aestheticians of aleatory music will perhaps answer “yes.”)

Noise and merry-making: Christmas bells, sleigh bells, dancing bells, jester’s bells.

Literature, biography, and advertising: For almost three millennia people have been unable to refrain from covering bell surfaces with incised or cast inscriptions, in addition to the traditional ornamentations. The names and other personal data of the bell maker, sponsor, donor, and owner are favorite information offered for all to see and admire. Other memorable intelligence may include whatever messages and events the responsible personages considered to be deserving of a classified ad. Some bells contain poetry, prayers, congratulations, expressions of condolence, records of political or military victories. In some Asian civilizations, archaic bell inscriptions serve as important historical documentation or as sources for linguistic and semantic studies.

The bell business got started around 1400 B.C. in China, where the protohistoric Shang (or Yin) Dynasty developed its civilization near a bend in the Yellow River in northern Honan Province. Continuing excavations over the last forty years have furnished ample evidence of a highly advanced bronze technology combined with impressive artistic sophistication. Among the vast number of recovered artifacts are many bronze bells in a variety of shapes and ornamental designs. Some of the specimens are of simple form and small enough (2 inches high) to be called "jingles" by archeologists, who believe they may have been hung on horse fittings. Musicologists, however, are not so ready to draw a dividing line between bells and jingles; to them, simplicity of form or small size alone are not convincing criteria for such classification, nor are the assumed uses and unknown sound qualities of "noise-makers" important factors in these considerations. Bronze objects recovered after having been buried for more than 3,000 years are usually
damaged by corrosion and breakage, and their original sounds can be reconstructed only by casting replicas of equal alloy composition and dimensions, a task that has not been attempted so far. Also, some of the "jingles" seem to have come in small sets of increasing sizes, which may suggest the intention of creating something like a partial or primitive scale pattern. There is, furthermore, some evidence of manipulation after the casting process, which could be interpreted as a tuning effort. For these reasons I am inclined to discard the jingle theory and to accept even the smallest and simplest specimens of Chinese antiquity as bells with some musical function; in primitive music the border between "noise" and "organized music" is often indistinguishable and quite probably irrelevant.

As to bell occurrences earlier than the fourteenth century B.C. in China, we can only speculate: conceivably "natural" bells made of shells, gourds, animal bones, or tusks could have been fashioned by primitive man prior to the neolithic stage. But the chances are slim that such specimens will be found, since most organic matter decays too fast to survive so many millennia.

The next documentary "evidence" of bells comes from the Old Testament, wherein golden jingles are prescribed for the priestly vestments of Aaron (Exodus 28: 33-35). Those willing to accept this passage as reliable historical information may conclude that small bells or jingles made of precious metal were known in Egypt or Canaan at the time of Moses. The date of the Exodus of the Israelites is unknown, though it is sometimes hypothesized as having been around 1220 B.C. A difficulty arises here for bell chronology, because the first evidence of the existence of bells or jingles in Egypt cannot be placed earlier than the twenty-third dynasty (817-730 B.C.), while the earliest Assyrian bell find—a single specimen only—comes even later, around 600 B.C. Thus, although the Egyptian and Mesopotamian civilizations are a good deal older than that of China, and although both had a bronze technology almost a thousand years earlier, the creation of the first cast bronze bells must be credited to the Shang period in Honan. By the eighth or seventh century B.C., and possibly much earlier, the Chinese had learned to cast and tune complete scale sets of bells for ritual-musical purposes in a great variety of shapes and ornamental patterns. Several specimens have been recovered that bear even the pitch name of the bell tone, as well as other inscriptions, engraved on their surfaces.

Despite the wide distribution of bell-type instruments around the globe, there seems to be a common denominator in their function: anthropologists are agreed that bells in all early and primitive civilizations served to ward off evil and as protection against demons. This applies even to such cases as camel and elephant bells, since these are domestic animals unlikely to wander off by themselves. Traces of such beliefs can also be found in the earliest bell uses of the Christian church: the custom of protecting sacred grounds and buildings against evil spirits with such noise-makers came from the Near and Middle East along with the bells themselves. And for those among us who continue to practice witchcraft, exorcism is still accomplished with "bell, book, and candle."

The clappers that hang down from a bell's inside are by no means the only way of making them sound. Many types of hand bells, standing bells (opening pointed upward), and hanging bells are struck on the outside by a variety of hand mallets. There are even double bells, one mounted inside another, the smaller one sounding the larger when shaken. Other types have nar-
row slits instead of an open mouth, and this permits enclosing a loose rattling body for sounding (sleigh bells, for example). Most specialists, however, would classify such instruments as rattles or jingles, not as bells—a borderline case in classification.

It was a long time before a fully developed bell technology was reached in Europe. Though primitive bells were known in ancient Greece and Rome, it was not until the sixth century A.D. that the first small hand bells were introduced into the services of the Christian churches of Ireland, Italy, and France. For several centuries thereafter the art of bell-making seems to have been concentrated in medieval monasteries, and by the tenth century, Benedictine monks, for instance, had created pieces of up to 42 inches in diameter. Around 1250, specialized guilds of bronze casters had fully secularized the craft, developing improved skills and initiating the manufacture of larger and larger sizes. The fifteenth century marks the beginning of carillons—scaled sets of bells for playing hymns and other melodies. Although bell towers with more than one bell existed much earlier, carillons required more than the production of different sizes and pitches; they demanded precise casting techniques which could create fairly accurate tunings for each bell, an art that was not really fully developed until about 1550. Such carillons usually contain two to four complete chromatic octaves, or twenty-five to forty-nine bells which are "played" by a carillonneur from a manual and pedal keyboard, with wires connecting each key to the clapper of the corresponding bell. A few carillons are operated by automated player mechanisms.

The two largest bells ever made were both installed in Moscow and weighed 500,000 and 350,000 pounds, respectively. The larger of the two, called the Tsar Kolokol, measured over 20 feet in diameter. It lasted only three years after its installation in the Kremlin; it was destroyed by fire in 1737. The second, the Trotzkoi, is now the largest existing bell. While it was being installed in the Kremlin in 1734, it broke loose and plunged to the basement of the bell tower, burying itself deep in the ground. It was excavated in severely damaged condition in 1837 and has since been displayed on a pedestal—as our own Liberty Bell was before it was suspended in a new framework in 1962.

Church bells, quite generally, have a rather hazardous life. Many have been destroyed by fire and accidents of war, many more melted down because the metal they contained was needed for armaments. In World War II, for instance, 77 per cent of all German bells (over 42,000 of them) were seized by the Nazi government to feed the war machine.

Bell acoustics present very tough problems because the sound phenomena involved are enormously complex. They consist of the "impact tone," which decays very fast, a fundamental about one octave higher than the impact pitch, plus a series of six to eight harmonic overtones, all of which have fairly long decay times and are responsible for the protracted humming after the first sharp clapper impact. Apart from these harmonic elements, a fair number of inharmonic admixtures and noise components are usually present in bell sound, and they are likely to muddy up the fundamental pitch. One can say that bell pitches, and especially the "pure" ones, are increasingly difficult to control with increasing bell size. In a scholarly article on bell acoustics published as late as 1956, the author admitted that a clear physical definition of the impact tone had not yet been formulated, mainly because of the very brief decay time—he was inclined to shift the whole
problem into the field of physiological phenomena. Really pure pitches (or pitch sensations) can apparently be produced only in rather small bells up to, say, 10 inches in height. Thus, such stereotyped phrases as "clear as a bell" or "she has a voice as clear as a bell" are mistaken unless one is referring to those small bells that can be tuned with precision and do not contain too many inharmonic sound components. In fact, the aesthetic pleasure people derive from listening to bells seems to be linked to the complex, composite, and largely inharmonic sound produced by all but the smallest specimens.

What, then, is the strictly musical significance of bells, as distinguished from noise-making for ritual but nonmusical functions? For the past 100 years or so, symphonic composers have been able to include bell sounds in their scores because "orchestral bells" had been developed. These are bell substitutes consisting of metal plates, rods, or, most frequently, tubes 3 to 5 feet long. Such tubular bells imitate the sound of church bells quite well. One such bell surrogate is actually a strunged instrument constructed along the lines of a grand piano by conductor Felix Mottl for the Good Friday bells in Wagner's Parsifal.

Russian composers seem to be more fond of scoring for bells in their symphonic works than those of other nationalities, perhaps because the Russian church has the strongest and broadest tradition of bell uses in its services. A well-known example is Tchaikovsky's 1812 Overture, in which the bells come in at the end to the strains of the Imperial Russian anthem. Rachmaninoff's Opus 35, called "The Bells," is a choral symphony with vocal solos after the poem by Edgar Allan Poe, and it makes ample use of tubular bells (there is a splendid performance on Columbia CML 5043 with Ormandy and the Philadelphia Orchestra). Another impressive example is in Moussorgsky's Boris Godunov, when the Tsar enters the cathedral upon assuming his crown. In all these instances, the Russian style of bell ringing, so different from the rest of the Christian world, is well illustrated. In England, multiple bells in the same tower are usually rung one after the other, so as to form short melodic phrases (for example, Big Ben in London's Parliament clock tower). In continental Europe, multiple bells are sounded together and overlapping, producing a permanently changing combination of sounds. But in Russia, multiple bells are rhythmically coordinated, so that the second bell is struck twice as fast as the first and largest one, and a third four times as often, thus creating the rich and metrically lively bell sound that we have come to know from the aforementioned compositions.

A contemporary composer, Toshiro Mayuzumi, tried to approximate the sound phenomena of Japanese temple bells in his 1958 Nirvana Symphony (Time Records S/8004) because he was fascinated by their complex overtone structure. In fact, for the Western version of his score he used as titles for the three movements (rather than a translation from Sanskrit) the designations "Campanology I, II, and II." Employing tubular orchestral chimes, celesta, and percussion as a basis, the score adds a large variety of other instrumental devices to create the bell-like sound combinations of the composer's imagination.

But the most interesting instance of bell sounds in my experience was a work by an Italian musician-acoustician that I heard in Berlin in the late Twenties—unfortunately, I cannot recall the composer's name. Scored for conventional symphony orchestra, the work combined carefully selected tones and effects of individual instruments or instrumental groups in such a way as to closely imitate the component parts of bell acoustics which he had analyzed for their subjective impressions on the listener. The result was a brief work sounding as if performed by a large body of bells, a sort of super-carillon. Since there was not a single bell in the orchestra, the score must be called a magnificent stunt by a highly skilled orchestrator and acoustics expert. Campanology, the art and science of bell-making and of bell ringing, had come full circle—from nothing but bells to bell substitutes to no bells at all.

The future of bell and chime manufacture is uncertain at present; one gets the impression that the art of casting fine specimens is in decline around the Western world. A set of three or four church bells, weighing somewhere near 10,000 pounds, is quite expensive, and a full carillon even more so. In addition, the development of electroacoustic substitutes has considerably reduced the demand for real bells; smaller congregations are increasingly satisfied with electrically operated tubular chimes or even with recorded sound, and today many a loudspeaker assembly is to be found in bell towers in place of true bells. Some people with sensitive ears may find these latest developments rather desirable. Americans vacationing in small or medium-size towns in Catholic regions of Europe have often found themselves sleepless at night because of the incessant striking of time, and the frequent extended tolling for all kinds of daytime services seems to lose its charm after twenty-four hours. Religious response gives place easily to resentment of noise in towns where there are enough churches to place every resident with 500 yards of several bell towers. Progress, automation, noise pollution, changing times and changing tastes—the twentieth century may bring to a close the long history of bell lore.

Fritz Kuttner, author and musicologist, came to bells through his special study of ancient Chinese music. The May, 1969 issue featured his tale of another oriental instrument: the harmonica.
Ronald Barnes of the Washington (D.C.) Cathedral, center, giving a recital on the 54-bell carillon in Yale's Harkness Memorial Tower. As he strikes the carillon's oak levers, the wires behind the "keyboard" work the bells above.

America's Bell Ringers
Give Yale 4-Day Concert

By DONAL HENAHAN

NEW HAVEN, June 23—Hearing the Yale fight song and "Eleanor Rigby" played on a 54-bell, 43-ton carillon is like hearing the Yale fight song and "Eleanor Rigby" played on a 54-bell, 43-ton carillon. Any other comparison must be feeble. But to one who has climbed to the keyboard room, near the top of a bell tower, the experience is something like being locked inside a gargantuan chime clock gone mad.

For 60-odd bell lovers gathered here for the annual Congress of the Guild of Carillonneurs of North America, there is no sweeter music than the ringing out across the vale University campus this week from the 200-foot Harkness Memorial Tower.

During the congress, which ends Wednesday, many of the members are taking turns at the 4½-octave clavier, in full-fledged recitals and in "free-time" sessions. To do so, they have to climb 139 iron steps of a spiral stairway leading to the tower's playing room, immediately beneath the largest of the bells, a 7-ton bourdon 8 feet in diameter (the smallest is 6 inches across). There they enjoy a bell ringer's holiday, banging away with fists at the oaken levers that set off the bells.

Band-Aids and Gloves

Since, dragging their feet against the technological revolution, true carillonneurs scorn any electrical assistance, the mark of their trade is plentifully in evidence: the bruised, gloved and Band-Aided hand.

Ronald Barnes, carillonneur of the Washington Cathedral, paused to wipe off his damp arms in the midst of his solo recital yesterday afternoon to complain, "This is hard work for an old man. We should all be in a gymnasium.

Mr. Barnes, who is only 42 and a most athletic clavierist, flailed away excitedly at the levers and kicked at the foot levers that work the larger bells. Sweat bathed his robust frame (a towel was kept beside him for use between numbers), his face turned a bright shade of mauve, and his eyes gloved with alarming fanaticism. Now and then he gulped soda pop from a paper cup, and at one point he called out: "This should have gin in it."

Outside, on the lawns of Branford College and across High Street on the Old Campus, connoisseurs and the merely curious listened, mostly unaware, to the results, an elegantly genteel suite of 18th-century dances by Rameau.

Boon for the Shy Virtuoso

The student performers, led by their adviser, Bruce Eberle, went at their work somewhat more coolly, though carillon playing is at best a strenuous branch of music. But everyone agreed that working in the isolated tower has musical as well as calisthenic advantages.

"It's great for the guy who wants to play but is afraid of facing an audience," said Peter Levine (Yale '70), who is president of the university guild.

Now and then, however, the audience must be faced, since not everyone who lives near a carillon tower finds the daily or twice-daily pealing appealing. Audience antagonism, in fact, is a hazard of the trade.

"The master of Jonathan Edwards College next door really hates me," Mr. Eberle said ruefully. "He called me the most despicable man he ever knew."

The danger of hatred by one's fellow men was one topic at the four-day congress, although it was not on the official agenda. The members also pondered the pigeon problem.

"We don't worry about hats in our bellfry," said Mr. Eberle, "but pigeons are something else." He noted that pigeons could over the years not only make a bell tower uninhabitable but actually change the pitch of the bells. "A good snowfall has the same effect," he added, "the bells go down a 5th.

A Cry for Elevators

More officially, the congress agenda took up such problems as maintenance (every player must learn to be both large wrenches); professional standards (more and more, the professional carillonneur is being asked to double as organist, floor-sweeper and dog-walker, said one player); the dismaying lack of elevators in bell towers (Mr. Barnes is one of the few to have one), and the relative quality of the some 150 carillons in North America.

Among the carillonneurs—who came from as far away as California and England—there was some soul-searching about what drives a person to want to play so strange, although ancient, an instrument. A delicate blonde named Patti Ewing, a student at the University of California in Riverside, laughed: "I just like to play bells, that's all.

But Daniel Barns, from Chicago's Rockefeller Memorial Chapel, perhaps gave every carillonneur's secret: "I like to play it," he said, "because it makes so damn much noise."

THE size and structural permanence of cabinets built to house stereo systems often interfere with the flexibility offered by the audio components. When Dr. L. L. Dunscombe of Humboldt, Iowa, decided to design his installation he kept in view the prospect of a possible move to a new house. The product of this foresight is an installation that is unusually functional and portable without sacrificing good looks or good sound.

The seven-by-nine-foot structure is composed of eight individual compartments stacked like blocks atop a low, recessed base. When the end panels along the left and right sides are removed, the installation disassembles into modular sections that can be transported with ease or rearranged to accommodate expansion of the existing system. In his new home Dr. Dunscombe expects to add several more compartments and extend the top of the assembly to the ceiling.

The principal program sources are housed in the two modules of the middle tier along with a Dynaco PAS-3x preamplifier, and include a Dynaco FM-3 tuner, a Sony 355 tape deck, and an AR turntable with a Shure V-15 Type II cartridge. The audio signal from the RCA color television set is fed into one of the preamplifier high-level inputs. The cabinets flanking the television set provide shelf space for a Dynaco Stereo 120 power amplifier, a junction box for a pair of Lafayette Model F-767 headphones, and an Eico HF20 monophonic integrated amplifier that drives remote speakers. Two AR-3a loudspeakers round out the system. A timer is located between the tuner and the tape deck; the small space below it is intended for the rotator control of an FM antenna.

Dr. Dunscombe, a dentist, began assembling component kits while an undergraduate at Iowa State University. With his music system essentially complete, he has developed a lively interest in taping off the air, an activity he describes as “challenging” in his fringe area. His tastes in music are wide-ranging, but he feels himself most at home with jazz, folk music, and show tunes. —R. H.
STEREO REVIEW’S SELECTION OF RECORDINGS OF SPECIAL MERIT
BEST OF THE MONTH

CLASSICAL

WILLIAM BILLINGS: “AN OVERFLOW . . . OF RELEASED DELIGHT”

The Gregg Smith Singers honor America’s first composer in an important choral album

The famed “New England tradition” has contributed to the larger aspects of our American culture through its having provided the inhabitants of our fruited plains with a knowledge of the virtues of codfish cakes, baked beans, Maine lobster, and that somewhat less palatable dish sometimes known as the “Hahvud manner.” In addition, this same time-honored source has yielded a series of personalities in many fields: Lizzie Borden, Sacco and Vanzetti, Chief Massasoit, a sprinkling of talented literary men, and at least two first-rate composers—Charles Ives and William Billings.

Ives, during the last few years, has been accorded a proper recognition. Billings, on the other hand, is only now shedding the wax-like pallor of the musicological museum and emerging into the sunlight of live performance. Now, recently released, and adding a positive glow to the Billings resurrection, is a superb new Columbia recording of selections from that composer’s Continental Harmony. An elegant disc, it is as savory and satisfying an item as any lobster stew fresh from the pot of a Cape Cod culinary genius.

The superiority of the New England mind is widely recognized by New Englanders, and, if the rest of the world occasionally fails to acknowledge the obvious, it merely serves to confirm (at least for the residents of Massachusetts) the presence of an inherent weakness in those unfortunate enough to have been born too far south of Boston. Thus, the true New Englander comes naturally, by the grace of God and the fortune of birth, to that station in life that permits of a modest unorthodoxy. In the case of William Billings, nature would seem to have worked overtime to take advantage of the possibilities: the composer was “somewhat deformed, blind of one eye [with] one leg shorter than the other [and] one arm withered . . . given to the habit of continually taking snuff . . . his voice powerful and ponderous, drown[ing] that of every singer near him . . . [and] tough as a saw by the quantity of snuff that was continually rasping his throat.” Writing in the 1880’s, F. L. Ritter described him as being a mixture of absurdly comic, eccentric, commonplace, smart, active, patriotic, and religious elements—the prototype of the Yankee psalm-tune music-teacher as he existed at the end of the eighteenth century.

A son of the American Revolution (Billings was thirty years old in 1776), he reflected the independent spirit of the times in his artistic attitudes:

For my part . . . I don’t think myself confined to any Rules for Composition laid down by any that went before me . . . Nature is the best Dictator, for all the hard dry studied rules that were ever prescribed will not enable any person to form an Air any more than the bare knowledge of four and twenty letters, and strict Grammatical rules will qualify a scholar for composing a piece of Poetry, or properly adjusting a Tragedy without a Genius.

At the same time, he was modest:

. . . neither should I think (were I to pretend to lay down rules) that any one who comes after me were in any ways obligated to adhere to them any fur-

Gregg Smith
Rock-solid professionalism

SEPTEMBER 1969
ther than they should think proper; so in fact I think it best for every composer to be his own learner ... for me to dictate, or pretend to prescribe Rules of this Nature for others, would not only be unnecessary but also a very great piece of vanity.

and realistically self-critical:

Kind reader, no doubt you remember that about ten years ago I published a book entitled "The New-England Psalm Singer"; and truly a most masterly performance I then thought it to be. How lavish was I of encomium on this my infant production . . . But to my great mortification . . . I have discovered that many pieces were never worth my printing or your inspection.

He had a sense of humor:

By the rivers of Waterton, we sat down and wept, yea wept as we remembered Boston.

He was a patriot:

Let tyrants shake their iron rod,
And Slavery clank her galling chains:
We'll fear them not, we'll trust in God;
New England's God forever reigns.

The foe comes on with haughty stride,
Our troops advance with martial noise;
Their veterans flee before our arms,
And generals yield to beardless boys.

and he loved music passionately:

That I am a Musical Enthusiast I readily grant, and I think it impossible for the Votaries to be otherwise for when we consider the many wonderful Effects which Music has on the Animal Spirit, and upon the nervous system we are ready to cry out in a fit of Enthusiasm—Great art thou, O Music!

An individualist—"his own Carver"—the composer of The Continental Harmony was the first American blessed with original musical ideas to develop a level of craftsmanship that would allow for their adequate expression. To first experience Billings is to realize suddenly that, as the English critic Wilfrid Mellers wrote in Music in a New Found Land, "... his 'art' is an overflow of wonder, of energy, of released delight. It is as though he—and we—were experiencing music for the first time; and the sensation is strange and enlivening, especially for those who belong to a world grown old."

This first important Billings record deserves high praise. It brings us the Gregg Smith Singers performing on a heavenly plane (that part of heaven closest to Massachusetts, of course), their professionalism being so absolutely solid that one is scarcely aware of the fact that technical difficulties do exist for some singers. They know no pitch problems; they require no exercises in diction, and, appropriately, they infuse their singing with a sense of joyful involvement that brings the music to life.

The material of The Continental Harmony is fascinating: wait until you hear I Am the Rose of Sharon, Be Glad Then America, Hopkinton, those superb "fuging" tunes, and the amusing Jargon with its manifesto to the "Goddess of Discord." To make a good thing complete, Columbia has provided excellent recorded sound.

Long overdue, this disc should help bring back an awareness of a singing tradition that has vanished from the American scene. It's an important record and, unless I miss my guess, you'll probably react to it as I know I did: I smiled all the way through.

Leonard Alman

BILLINGS: The Continental Harmony. I Am the Rose of Sharon; David's Lamentation; The Bird; Kittery; Hopkinton; When Jesus Wept (Fuging Tune); The Lord Is Risen (Easter Anthem); A Virgin Unspotted (Juda); Boston (Christmas Anthem); The Shepherd's Carol; Creation; Connection; Consonance; Jargon; Modern Music; Cobham; Alupben; Swift as an Indian Arrow Flies; Chester; Be Glad Then America (An Anthem for Fast Day). The Gregg Smith Singers, Gregg Smith dir. COLUMBIA MS 7277 $5.98.

BENJAMIN BRITTEN: THE COMPOSER CONDUCTS

His special viewpoint lends a warm and relaxed glow to Mozart's Fortieth

It seems to me to be a curious fact that if a composer has no authentic vocation for conducting, it shows up just as unmistakably in performances of his own works (they are supposed to 'tell it like it is') as it ultimately does in repertoire standards. Judging from recordings of his own works, I would say that Benjamin Britten has been almost from the beginning an "authentic" conductor. But now, with London's release of his uncommonly warm and personal performance of Mozart's Symphony No. 40—a work that many consider to be the archetypical, bona fide masterpiece of the standard symphonic repertoire—he may very well be giving even such an outstanding composer-conductor as Pierre Boulez the gentle elbow.

Quite apart from its unostentatious but impeccable technical proficiency, Britten's performance of the symphony is perhaps the most glowingly warm, relaxed, and affectionate one I've heard on records. I don't know exactly why. But an extremely curious letter I received (from a reader who, in deploiring my apparently controversial publication opinion that Mozart composed a lot of masterly but negligible music, concluded that I was "jealous" of Mozart) raised a point that may not be irrelevant to Britten's success here. For my reader couldn't have been more in error. Outside of a case of total paranoia, no living composer (even one as famous as Benjamin Britten) could conceivably be envious of a composer who lived in the eighteenth century and who remains, by something very close to common consent,
BENJAMIN BRITTEN: a very special, personal Mozart

Perhaps the supreme musical genius in the history of the art.

Instead, a genuinely talented composer-conductor (who, as a composer, has realized his own creative potential) would, I should imagine, be so totally devoid of envy that he could let the music happen in a very special and different way from the self-conscious “interpretations” of even the most gifted non-composing conductor. And having been, as it were, a parent himself, he might tend to emphasize the real affection for the offspring of another “parent” that he would hope for in a performance of his own work. It may, in fact, be no coincidence that more than a few of the most venerable conductors of the last century were also composers of real distinction.

I’m not beating the drum for the composer-performer, nor am I even suggesting that Britten’s Mozart—including his sassy performance of Serenade No. 6—is superior to the legendary performances of Beecham or Walter. I am suggesting instead that it has a very special, personal charm of its own and that this may emanate not only from his unquestionable mastery of the technique of conducting but also from his special viewpoint as a composer.

I am not suggesting or not, I suggest that you have a go at this release (London has given it a magnificent sonic production) if you’re in the market for a view of a standard that is sufficiently fresh to warrant your attending once more to a work with which you most probably are already well-enough acquainted.

William Plaut

MOZART: Symphony No. 40, in G Minor (K. 550); Serenade No. 6, in D Major (K. 239, “Serenata Notturna”), English Chamber Orchestra, Benjamin Britten cond. LONDON CS 6498 $5.98.

(RE) INTRODUCING MISS KETTY LESTER

A program of songs old and new profits from a judicious application of “soul”

Ketty Lester’s latest recording on the Pete label is a gratifying turn-about turn-on. She has broken out of the satin-brocade sounds she developed during her recent-past affairs with Rodgers and Hart, Rodgers and Hammerstein, Johnny Mercer, Irving Berlin, and all those others, and has found her true love, the bumpy, funky music of today. I have always admired Miss Ketty, but this trip she has really won me over—permanently. She went home and shook out the soul she always had—only now she flaunts it.

In Bob Dylan’s Don’t Think Twice, the first number on this new disc, she complacently and nasally attacks from all directions, creating a traditional ear-filling “opener.” Then she smooths it out and delivers a soft relaxing Living at We Live. Even softer and easier is her version of the Bacharach-David I Just Don’t Know What to Do with Myself. Back into the hard-rock beat with Show Me, and gently down again with You’re Getting Older. Close and fade out with a natural spiritual, Peace, Brother, Peace, and Miss Ketty (with the help of her producer-arranger Lincoln Mayorga and three other vocalists) has wrapped up a perfectly paced side one.

Side two has Miss Ketty showing off quite a few oldies that have rarely sounded so good before. I always fall apart when I hear Since I Fell for You; I fell apart this time, too. An amusing Prisoner of Love helped put me back together—temporarily—for I was immediately knocked down again by her well-known version of Victor Young’s Love Letters, a great old love song from a circa World War II Jennifer Jones movie of the same title. Miss Ketty takes it to a gospel church and marries it off once and for all. Now More than Ever winds it all up, but I have a feeling I’ll be playing this one regularly with my record changer set to “repeat.” Welcome back, Ketty Lester, to the right side of “soul” town.

Rex Reed

Ketty Lester, Ketty Lester (vocals); vocal group (Gloria Jones, Shirley Matthews, Carolyn Willis); orchestra, Lincoln Mayorga arr. Don’t Think Twice; Living at We Live; I Just Don’t Know What to Do with Myself; Show Me; You’re Getting Older; Peace, Brother, Peace, Son of a Preacher Man; Since I Fell for You; Prisoner of Love; How Sweet It Is; Love Letters; Now More than Ever. PETE S 1109 $1.79.

(Continued overleaf)
NINA SIMONE: THE TIGRESS LEARNS TO PURR

Her latest disc is a very special blend of vocal artistry and intelligent musicianship

"To Love Somebody" is an excellent sample of one of the best of today's singer-musicians performing at her very best. Nina Simone, who until recently seemed to be frozen into a posture of rather petulant militancy, comes back on this new RCA release almost as a new-girl-in-town pop singer. I suspect that this is not so much because she has changed in any fundamental way as that she recognizes that the public has grown up musically to the point where they can appreciate her very special qualities.

Until now, Simone has been pretty much a "caviare to the general" taste, the focus of a small but intense cult, but this recording makes it possible to see her as a much more universal talent. The repertoire itself (some of the best contemporary songs) is certainly in part responsible, but, more important, there is a new and positive life in Simone's voice and delivery. Her older recordings were generally howls of despair or rage—things were bad and getting worse. Here, however, singing such songs of hope as The Times They Are A-Changin' and Turn! Turn!, her voice takes on a more compassionate note—she seems to be singing for everyone's understanding, not just that of one specific group. In Leonard Cohen's Suzanne she sings of love—not a crushed or hopeless or unrequited love, but one that knows fulfillment and completion. Her To Love Somebody is a lucid and moving explanation rather than a harangue or a wail, and the message of the two-band Revolution comes through as one of evolution. Different material, in sum, equals different manner—Miss Simone seems softer, yet, oddly enough, also rather stronger.

None of this is intended to suggest that Simone has lost any of the things that have always distinguished her work: the absolute musicianship, the technical control of the voice, the respect and intelligent comprehension she brings to a lyric, or her great gift for apt orchestration. And she can still be very much the tigress—except that she has learned how to purr.

This album should prove a turning point in Simone's career—at least I hope so, since she is, and has long been, one of the best American singers around. More albums like this one should win her the larger public she deserves. Miss Simone has indicated that she, like Barkis, is willing. Now I guess it's up to all the rest of us.

Peter Reilly

NINA SIMONE: To Love Somebody. Nina Simone (vocals); orchestra, Nina Simone and Jimmy Winser arr. and cond. Suzanne; Turn! Turn!; Revolution; To Love Somebody; I Shall Be Released; I Can't See Nobody; Just Like Tom Thumb's Blues; The Times They Are A-Changin'. RCA LSP 4152 $4.98, PB 1453 $6.95.
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Reviewed by WILLIAM FLANAGAN • DAVID HALL • GEORGE JELLINEK • IGOR KIPNIS • ERIC SALZMAN

ANONYMOUS: Missa Tournai (Fourteenth Century); Motets: Ad solutinum Tenor: Regnat (Wolfenbüttel/W2); Ad solutinum Tenor: Regnat (Wolfenbüttel/W2); Papamotut: Ad solutinum Tenor: Regnat (Codex Bamberg); Ave sanctissima Alma Redemptoris—Tenor: Alma (Codex Montpellier); Gottlobus—Tenor: O natio Tenor: Mox prime Sabbati (Roman de Fauxet). PHILIPPE DE VITY: Motets: Colla (Rom. 9517-A Ex 55.95. Munich and ensemble of original instruments: Philippe de Vitry.]

RECORDING OF SPECIAL MERIT

BACH: Ricercari à 3 and à 6 from The Musical Offering (BWV 1079); The Art of the Fugue (BWV 1080); Goldberg Variations (BWV 988); Charles Rosen (piano). ODESSY 32 36 0020 three discs $8.94.

Performance: Enthusiastic Recording: Excellent Stereo Quality: First-rate

The main work in this collection is considered to be the oldest cantus partialis mass in the composition of which there undoubtedly were several composers involved. Side two is devoted to anonymous isorhythmic motets and a group of motets by Philippe de Vitry (1291-1361). All these works belong to the first thirty or so years of the fourteenth century, a time of change from the art antiqua to the art nova; in other words, this was the period when styles shifted from relatively homophonic and rhythmically simple settings to a complex polyphony, in which different voices range against each other in a highly mannered rhythmic system. Konrad Ruhland, the conductor, presents this music in a very scholarly manner but with rather too much formality in the later, more complex works, so that the manneristic rhythmic and polyphonic elements are smoothed over (compare Deliet's recording of Machaut's Notre Dame Mass, which is quite jagged-sounding). Then, too, there seems to be a disregard here for the text of the mass, to the detriment of the pacing; what happens is that the music tends to run on without taking a breath. It's all very well sung and played, with proper instrumental doublings, but also somewhat soporific, to my ears. To be sure, the music of this era, a terribly difficult problem for scholars, is something for which no one has all the interpretive solutions. Yet one might hope for a more interesting and incisive result than what one hears here. No complaint can be leveled at the excellent sound. Texts and translations—for the Mass but not for the motets—are included. I.K.

Charles Rosen
Making musical sense of thirteenth-century Bach

Regardless of whether one feels the piano is the proper instrument for this music (the album is entitled "Johann Sebastian Bach: The Last Keyboard Works," which in itself asserts a musicological position given to full in Mr. Rosen's notes), one must have great respect and admiration for the brilliantly conceived performances. He has chosen some of the thorniest Bach (mainly the Ricercari from The Musical Offering and The Art of Fugue), and by and large he makes considerable musical sense of them. This is not to say that I like everything he does interpretively with these scores, for he veers between an older school of Romantic Bach à la Edwin Fischer and the pointillistic style—roughly, the manner of Glenn Gould—of the more dissonant approach. Fast movements are very fast (the crossed-hands variations in the Goldbergs), and slow movements are sometimes unduly languorous. I liked his Goldbergs least (which, by the way, take up—with all repeats!—three sides, as against the four of Tureck, Malcolm, etc.), perhaps because his pianistic personality is not particularly expansive; he is apt to emphasize structure at the expense of affect. The Art of Fugue, however, is impressive, and his ability to clarify important things in this music is quite amazing. Overall, you will hear a great deal of brilliant playing on these six sides, together with a rather controlled expressiveness. At their best—in the six-voice Ricercari or the final unfinished fugue from Bach's last work—Rosen's performances are remarkably convincing. The reproduction is dry but very clear, with a slight hardening of the tone at the side ends. I.K.

BARTÓK: Music for Strings, Percussion and Celesta; Sonata for Two Pianos and Percussion; Geza Fix and Luctor Poste (pianos): members of the London Symphony Orchestra. Antal Dorati cond. MUSIDOR 90 9015 55 98.

Performance: Very fine. Recording: Good Stereo Quality: Good

Remembering the lean and powerful Bartók performances I had the privilege of producing with Dorati in Minneapolis during the 1950's while serving as musical director for the Mercury classics line, I looked forward with genuine pleasure to Antal Dorati's new recording with the London Symphony Orchestra. It is truly to be both startled and disappointed. For instead of a lean, clean, straightforward treatment after the fashion of Reiner or Boulez, we get a surprisingly free-wheeling version, in which the end movements, especially are treated somewhat oddly (see the slow side) with the composer's expressly stated timings in the published score. Reiner and Boulez here most closely to the line in this respect. It is the last movement that is the most disconcerting in Dorati's reading. Not only does he adopt a rather sluggish basic pulse for this brilliant dance movement, but the various relaxations of tempo called for here and there, usually designated poco meno mosso or poco meno mosso, are decidedly more than poco. In fact, for a good deal of the time, the result with which the musical continuity becomes fragmented.

More successful is the splendidly braving of the two Ricercarri (Continued on page 100)

Explanation of symbols:
- = renditions left
- = baroque cadence
- = eight-voice cadence
- = cadenza

Monophonic recordings are indicated by the symbol . All others are seven.
The time was ripe, to say the least. High-fidelity amplifiers (i.e., amplifiers whose output closely resembles their input) have been around for more than twenty years. High-fidelity FM tuners just about as long. Even high-fidelity pickup cartridges, capable of producing a reasonably accurate electrical replica of the groove, could be had as far back as the mid-1950s.

But, until Rectilinear did something about it, you still couldn't buy a high-fidelity loudspeaker after all these years. Not if you accept any definition of high fidelity as applied to other audio components. (How would you like, for example, a “high-fidelity” amplifier with the response and distortion characteristics of your favorite speaker system?)

This isn’t just academic hairsplitting or a question of semantics. Audiophiles are in universal agreement that there are only the subtlest audible differences among the finest amplifiers or phono cartridges, whereas no two loudspeakers of different design have ever sounded even remotely alike. Both may sound pleasing, or realistic, or musical, or better than last year’s model; but in an A-B comparison their outputs invariably disagree about the input. Because, invariably, both outputs are at least partially wrong.

We believe that our new bookshelf speaker, the Rectilinear X (that’s a ten, not an ex), is the first speaker system whose output is right about its input. We further believe that future speaker systems designed with the same basic principles in mind will sound very much alike, just like the best amplifiers or pickups, no matter how different they may turn out to be in actual engineering execution.

The initial concept behind the Rectilinear X was to try to isolate what everybody else was doing wrong. Since speakers are undeniably getting better all the time, speaker designers must be doing something (or even a lot of things) right; but is there anything fundamental that everyone has overlooked?

We came to the conclusion that there is. Envelope delay distortion. This is a type of time delay distortion having to do with loudspeaker phase characteristics, which has been a rather neglected subject among members of the hi-fi Establishment.

Actually, the phase response of a loudspeaker is at least as important as its amplitude response, although the latter is nearly always accepted as the “frequency response” specification. The matter is a bit too technical to be pursued in detail in this ad, but we’ll be pleased to give you additional information if you write to us. For the moment, let it suffice that envelope delay distortion causes an audible coloration of speaker sound.

In terms of practical speaker design, this line of thinking produced, first of all, a highly unorthodox approach to woofers. We realized that in just about all speaker systems the woofer was responsible for envelope delay distortion as well as IM distortion far up into the midrange. The woofer of the Rectilinear X is an entirely new 10-inch unit with a completely linear excursion capability of 1/2 inch in either direction, meaning one full inch of travel from peak to peak. There has never been anything like it. It can move more air than most 12-inch woofers, and of course far less sluggishly. Furthermore, it is crossed over to the midrange driver at the unprecedentedly low frequency of 100 Hz, with an attenuation slope of 12 dB per octave. As a result, it remains virtually motionless without a deep bass input and can’t possibly mess up the midrange. But when there’s a bass drum or a tuba or double basses in the program material, it produces music instead of mud.

Of course, a 100 Hz crossover with a 12 dB slope would be quite impractical with conventional crossover networks. The Rectilinear X network is designed around unconventional iron-core chokes, which will probably upset Establishment engineers, but then so did rear-engine automobiles . . .

The 5-inch midrange driver is equally remarkable. It covers more than six octaves, from 100 to 8000 Hz, in a separate subenclosure and is therefore a full-range speaker system in its own right. This accounts for the completely seamless, homogeneous sound quality of the Rectilinear X. The cone structure is of a special paper not available in any other unit, permitting rigid piston behavior at the lower mid-frequencies and, at the same time, extraordinary transient detail higher up in the driver’s working range.

At 8000 Hz, the midrange is crossed
pleased to
world's first
loudspeaker.

over to the 2½-inch tweeter. With only a little more than an octave assigned to this driver, its exceptionally light cone and voice coil operate only in their most comfortable range, without the slightest possibility of strain. [Speaker systems that demand too much work of a tiny tweeter are asking for trouble.]

The spacing of the three drivers in the Rectilinear X is an important part of the design and is by no means dictated by convenience or visual symmetry, as in many other bookshelf systems. The distance of the midrange speaker from the woofer is particularly critical for the best possible phase characteristics in the crossover region.

The final touch of sophistication is provided by the grill cloth. In other speaker systems the grill cloth is made acoustically transparent, allowing sound waves to pass through unaffected. In the Rectilinear X a specially prepared fabric presents a graduated acoustic impedance to the midrange speaker and the tweeter, for greatly improved sound dispersion at the higher frequencies. Stretched on a slightly raised frame open at the sides, the grill cloth actually functions as a superior form of acoustic lens, making the speaker nondirectional over an extremely wide angle. This, combined with a cabinet size of only 25” by 14” by 10¾” deep, opens up new possibilities in speaker placement.

We must emphasize that none of these unusual engineering details are in themselves revolutionary. Perhaps the most gratifying thing about the Rectilinear X is that it's still an eminently sensible bookshelf speaker designed around three rugged, reliable drivers of the classic moving-coil principle, rather than a far-out experiment utilizing some exotic new driving system along the lines of, say, ionized air speakers. Our new standard of performance is the result of new insights into the existing technology, not of an unproven new invention.

What does the world's first high-fidelity loudspeaker sound like? It can't really be described in words and you must hear it for yourself. But the few people who have already heard it seem to agree on the following points:

- The bass is startlingly clearer and more natural than one is prepared to hear through any electronic medium.
- The midrange is so completely neutral and devoid of coloration that all other speakers seem nasal by comparison. There isn't the slightest hint of boxiness or enclosure sound. In fact, the sound gives no indication of the size or even existence of the enclosure.
- On complex program material like Wagnerian climaxes or hard rock, the same untrained clarity is retained, for example, on solo flute.
- Above all, the Rectilinear X is supremely listenable. Even after several hours of listening at high volume levels, there isn't the slightest aural fatigue or irritation. None of that "I've had enough, let's turn it off" feeling.

We left the price of the Rectilinear X for the last. Since it sounds superior to speaker systems selling for up to $2400, the price could have been whatever the traffic would bear. But based on our manufacturing costs plus the normal profit margin, we decided to set it at $199.

You'll have to agree that for a high-fidelity speaker, that's not high.

[For additional information, see your audio dealer or write directly to Rectilinear Research Corporation, 30 Main Street, Brooklyn, N.Y. 11201.]

**Rectilinear X**

(Circle No. 50 on Reader Service Card)
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RECORDING OF SPECIAL MERIT

BARTOK: Sonata for Two Pianos and Percussion, POULENC: Sonata for Two Pianos. Bracha Eden and Alexander Tamir (pianos), James Holland and Tristan Fewell (percussion). LONDON CS 6583 $5.98, @ 80214 (71/2) $7.95.

Performance: Eloquent
Recording: Excellent
Stereo Quality: Fine

While these performances are not uniformly at a high level, I find the musical results almost consistently fascinating and, from any viewpoint involved, unarguably valid. The Bartok Sonata is probably the more orthodox of the two readings; but this judgment is not meant to depreciate the almost fanatically propulsive dynamic drive the pianists bring to it. There is no concession to Bartok’s popular acceptance in this performance: the playing is rugged, idiomatically harsh and percussive, and often downright hard-boiled. It’s as exciting a performance of the piece as I’ve heard in ages.

The Poulenc Sonata is played strangely and provocatively. Eden and Tamir have made the most of its “serious” attitudes and, in turn, played down its “light” ones. The work has an unexpected grandness and, on occasion, an elevated tone that I’ve never associated with it. The rather plodding, relentless tempos by which this effect is largely achieved may be a bit wearing à la longue, but the overall view of the piece is an interesting one.

The playing is technically expert; the recorded sound is excellent in the Bartok, but a little bass-heavy in the Poulenc. W. F.

RECORDINGS OF SPECIAL MERIT


Performance: First-class
Recording: Above reproach
Stereo Quality: Excellent

It having been a lovely summer day and all, I confess I wasn’t looking forward with breathless anticipation to hearing and reviewing these two discs. But almost throughout, each surprised me by giving pleasure in the most winningly unpretentious way. None of the (Continued on page 102)
And that, gentlemen, is the understatement of the year.

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CIRCUIT NO. 16 ON READER SERVICE CARD

SEPTEMBER 1969
this is music I know at all well, so I expect that I was working under the misapprehension that anything by the mighty Beethoven that wasn’t very well known must be lesser, if not inconsequential, Beethoven.

Well, perhaps most of the music here recorded is lesser. The early string trios surely set the history of music on fire with their ambition, significance, or scope. But, composed when Beethoven was still a boy, they are both uncommonly sweet, singing works—remarkable for their fluency and the already-present mark of their composer’s sharply individual personality.

The Serenades, for the most part, create an overall effect that compels somewhat less affection. Like so many of the short multi-movement works of the period that were intended primarily to entertain, even the better musical ideas, in the nature of the form, are not dignified by that significant metamorphosis which the very drama of extended sonata form, for example, makes the final test of the quality of the musical material. A little too much of a sonata just gets played over again, but yes, that, I suppose, should leave us counting limited blessings.

Taken altogether, the serenades cut far less deep than even the early trios, yet they have but rarely a hand, facile moment, “instead, they brim with musicality and charm. The Serenades, for the most part, play all of this music with precisely the right weight and with all the expertise and tender loving care one could ask. And the recorded sound and stereo are each of them sensitively realized by Philips’ engineers. II. F.

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Exciting and unusual repertoire featuring two melodic concertos by a much neglected composer. Sutherland is stupendous! Melodies recall the music, but conversely, a bit less violin presence—than we have been getting in the Karajan recordings.

**RECORDING OF SPECIAL MERIT**

**BEETHOVEN: Symphony No. 6, in F Major, Op. 68 (“Pastoral”), Boston Symphony Orchestra—Erich Leinsdorf cond. RCA LSC 1074 $5.98.**

Performance: Excellent

Recording: Good

Stereo Quality: Good

**RECORDING OF SPECIAL MERIT**

DELISLE: Songs of Sunset (1906–7); Gynura (1907); An Arabesque (1911), Janet Baker (mezzo-soprano); John Shirley-Quirk (baritone); Liverpool Philharmonic Choir—Royal Liverpool Philharmonic Orchestra, Charles Groves cond. Angel S 56605 $5.98.

Performance: Very fine

Recording: Mostly very good

Stereo Quality: Splendid

A taste for England’s post-Wagnerian impressionist composer Frederick Delius (who was also influenced by what he heard during prolonged sojourns in the American South, in France, and in Scandinavia), may be an acquired one, but this release has been developed for the best of his heady harmonic brew— as represented by Songs of the High Hills, Sea Drift, and Appledore—it is pretty hard not to remain under the spell as you encounter new Delius works.

**BILLINGS: THE CONTINENTAL HARMONY**

(see Best of the Month, page 91)

**RECORDING OF SPECIAL MERIT**


Performance: Good Mittel-Europa Brahms; spirited Wagner

Recording: Rich and spacious

Stereo Quality: Good

Though he was trained under such Brahms and Wagner specialists of the old school as Hermann Abendroth and Hans Knappertsbusch and made his conductorial debut shortly after World War II, Otto Gerdes’ name will perhaps be familiar only to those American disc collectors who have studied the producer credits for DGG’s series of recordings by Herbert von Karajan. Gerdes has overseen the Karajan Beethoven, Brahms, and Sibelius cycles, among others. Evidently DGG is now intent on building Herr Gerdes into a star in its own right. He is the conductor for the Helioser Eugen Onegin excerpts (S 25081) and the two-disc package of seldom-heard works by Hugo Wolf (DGG 141267) reviewed here in August; his reading of the “New World” Symphony has been issued in England, and the liner notes of the present disc promise a Gerdes-directed recording of Tschaikowsky’s complete symphonies.

Gerdes’ treatment of the Brahms is solidly along the monumental and romantic Middle-European lines that record collectors with long memories may remember from the 8 rpm class of Max Fiegl (who knew Brahms) and Gerdes’ own teacher, Hermann Abendroth. Gerdes handles it well. This approach has had a singularly imposing American revival with the recent Boston Symphony recording with Erich Leinsdorf, and for a touch of overbreadth in the brass at the very end, Gerdes’ reading of the Midsummer Night’s Prelude has both sing and zing—a genuinely festive and spiritual projection.

The recorded sound is beautiful, the whole, with just a shade more room tone— and consequently a bit less violin presence—than we have been getting in the Karajan recordings.

**D.H. CHERUBINI: Symphony in D Major**

**HAYDN:**

**RECORDING OF SPECIAL MERIT**

**CHERUBINI: Symphony in D Major**

(see HAYDN)

**RECORDING OF SPECIAL MERIT**

**DELISLE: Songs of Sunset (1906–7); Gynura (1907); An Arabesque (1911), Janet Baker (mezzo-soprano); John Shirley-Quirk (baritone); Liverpool Philharmonic Choir—Royal Liverpool Philharmonic Orchestra, Charles Groves cond. Angel S 56605 $5.98.**

Performance: Very fine

Recording: Mostly very good

Stereo Quality: Splendid

A taste for England’s post-Wagnerian impressionist composer Frederick Delius (who was also influenced by what he heard during prolonged sojourns in the American South, in France, and in Scandinavia), may be an acquired one, but this release has been developed for the best of his heady harmonic brew— as represented by Songs of the High Hills, Sea Drift, and Appledore—it is pretty hard not to remain under the spell as you encounter new Delius works.

Of comparable caliber to these major works is the cycle of Strauss in Scholz, choruses, and orchestra, to eight poignantly bitter poems by Ernest Dowson on the passing of love and life. The setting of Dowson’s famous Groz for baritone and orchestra was intended originally for the Swift cycle, but posed to be, in the composer’s opinion, incompatible with the predominantly elegiac spirit of the other pieces.

How to describe Delius’ music? For corn (Continued on page 106)
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If you can believe the advertising, unequaled values in stereo receivers abound everywhere. Almost every receiver ad claims to offer more of everything for the money—more power, more features, more sophisticated circuitry, better performance...and so on. Not that we don’t do the same ourselves. But with all these claims, it’s becoming harder than ever to decide on a receiver. Who can you believe then? Well, we took our receivers to the experts to find out what they had to say. Their unbiased findings are summed up in the comments above.

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CIRCLE NO. 43 ON READER SERVICE CARD

SEPTEMBER 1969
Only yesterday, it would have cost you almost $400.

The new Concord MKII tape deck, at under $230, is almost unbelievable. By all accepted value standards, it is, in fact, almost impossible. Concord has, in one bold sweep, taken all the price snobbery out of luxury equipment. For the MKII brings a quality of performance—previously available to only a favored few—within reach of almost anyone who desires it.

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**NEW CONCORD MK III**
Same as MK II, but with new, virtually wear-proof, pressure-sintered ferrite heads. Non-magnetizing. Extend response to 27,000 Hz. Under $260.

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Similar to MK II in most respects, but with 4 heads and dual capstan transport with continuous automatic reverse play. Under $330.

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For further details, write Concord Electronics Corp., Los Angeles, Calif. 90025. Subsidiary of Ehrenreich Photo-Optical Industries, Inc.
The highly contrapuntal development in the finale comes off here with genuinely thrilling effect and sets the stage for a truly cumulative climax. The middle movements are beautifully done, too. The lifting accentuation of the dance-like scherzo bears just the right kind of relation to the serious fandango that has gone before.

All told, I find this an exceptionally illuminating and convincing realization of what many regard as the finest of the Dvořák symphonies. Other merits are the splendid orchestral playing, and the clean and beautifully sonorous recorded sound throughout. I recommend this disc highly.

D. H.
Jacqueline du Pré met Daniel Barenboim
And they married and played happily ever after.

On Angel.

She was a brilliant young cellist, a former student of Rostropovich, and internationally acclaimed. He was a turbulent talent who had survived being a child prodigy to go on to fame as a pianist-conductor.

On July 15, 1967, these two young geniuses — she from England, he from Israel — married, becoming the world’s most celebrated music lovers since Clara and Robert Schumann. Their honeymoon? “We spent it in camps playing for Israeli soldiers.”

Today the Barenboims are at home on Angel. Where else would they live?
Furthermore, the result of a lack of "thematic cohesiveness" which Gutman attributes to the Haydn and accounts for by the fact that its materials were derived from entr'acte music composed for a play falls on my innocent ears as a vastly more futuristic, subtle, and sophisticated musical continuity and a braver and freer formal plan than I associate with the period. There's no getting around it: it's a beautiful, eloquent work.

But back to the Cherubini Symphony. It is inevitably less sure of itself than a characteristic symphony by Haydn or Beethoven—most notably in its more random stylistic posing. But it has a certain elegance of figural detail and ingenuity of contrapuntal writing that not only distinguishes it from Haydn but provides a dash of Italian spice, as it were, to a meal of essentially Germanic staples. In any case, it should never have been withdrawn, and it should be performed today a good deal more than it is. Perhaps in spite of its somehow endearing eccentricities, I am grateful to RCA and conductor Brusilow for giving it to us in a modern recording.

In writing of Nonesuch's recent anthology of Haydn's London symphonies, I believe I described a style of Haydn performance that lessens the music by trying to make it the stylistic match of Mozart's. I'd forgotten about another performing phenomenon: that by which Haydn's relatively uncomplicated symphonic gesture is fleshed out to resemble the more complex, expansive manner of Beethoven's. This is Brusilow's approach to "If Drittrato." And while I deplore it in most Haydn symphonies, it at least seems believable in this one. I am not enough versed in the correct stylistic attitude toward Cherubini to say more than that it appears to crackle nicely here. The sonatas are superior. "W. F."

**RECORDING OF SPECIAL MERIT**

**HAYDN: Symphony No. 88, in G Major; Symphony No. 102, in B-flat Major.** New York Philharmonic, Leonard Bernstein cond. COLUMBIA MS 7259 $5.98.

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

What is there to say except that Bernstein is a great Haydn conductor and it is hard to imagine anything better than a fifty-minute hour curled up with this disc? Every musical decision is audacious, brilliant, yet carried off with perfect ease and dash. Plenty of depth and balance to the style, the playing, and the sound. The B-flat Symphony in particular is for once played like the towering masterpiece that it is. Only some pressing problems marred my enjoyment.

**E. S.**

**RECORDING OF SPECIAL MERIT**


**Performance:** Superb  
**Recording:** A bit over-reverberant  
**Stereo Quality:** Good

With this release of the second of three Argo discs devoted primarily to the vocal music of Ralph Vaughan Williams' neglected contemporary and friend Gustav Holst, we now begin to sense something of the setter and in works of the sort, variety, as well as the profundity, of the younger man's creative work.

The colorful instrumental aspects of *The Planets* and the bluff English folklorism of *St. Paul's Suite* and the splendid band suites mark only the outer boundaries of the Holstian universe—a universe which extends broadly from the exquisite sensuality of the Indian chamber opera *Savitri* (Argo ZNF 6) to the solitary mysticism of *Egdon Heath* (London CS 6524) and certain of the Humble songs recently recorded. Between Us, we have impressive and grandiose pieces such as the *Hymn of Jesus* (London CS 6524), the Choral Fantasia (Eveest 3136), and folksong settings in which the handling of choral voicing is the equal of Richard Strauss's orchestration. Our unerring skill—but fortunately minus the German master's lapses into vulgarity.

The works on the Argo record under review here range in point of time from the *Are Maria* for women's chorus of 1899 to the Welsh folksong settings of 1921. Unquestionably, the meat of this album resides in the remarkable series of twelve songs on texts by the distinguished British poet Humbert Wolfe. And it is of no small significance that the recorded performances here are by Peter Pears with Benjamin Britten at the piano—Britten himself representing the fulfillment of twentieth-century British song tradition embodied most especially in the work of George Butterworth, Ralph Vaughan Williams, Peter Warlock, and Gustav Holst.

The Wolfe poems are strange and fragile works that speak of fruitless fantasy and loss, ending in the chilling *Journey's End* and the awesome terror of *Belovedge.* The Holst settings are of equally awesome mastery; every single note, whether in voice or piano, is made to count for maximum harmonic, polyphonic, and dramatic effect. *Belovedge,* the masterpiece of the series, holds its own with Schubert's *Doppelgänger* as one of the great tours de force of the song literature.

The choral songs, which occupy the reverse side of the disc, constitute a varied bag, both in substance and merit. The *Are Maria* indicates that Holst was as skilled at choral composition from the very beginning as Tchaikovsky was at orchestration; The *Dare* and *My Sweetheart's like Veins* from the Welsh folksong settings of 1930-1931, display this skill at its very peak. *Song of the Blacksmith* is the same music that Holst used as the third movement of his earlier 1911 *Second Band Suite,* but it—and *Bring us in good ale*—were a bigger and more robust group than the smallish but superbly trained vocal ensemble that the composer's daughter, Imogen, has at her command here. Otherwise, the choral performances are (Continued on page 110)
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SEPTEMBER 1969
altogether elegant and beautifully recorded. Let us hope that some American label will lease the tapes and issue over here the British Lyrita recordings of late Holst orchestral works (Fugal Overture, Fugal Concerto, etc.). Though not as fresh or clean as the Gecor Super-Cost recording conducted by Sir Adrian Boult and Imogen Holst. Meanwhile, one should not overlook the fine British Odem disc (still available in most major record shops) that offers Imogen Holst conducting her father's two band suites. Illegesmit and the beautiful Moonrise Suite for brass band.

D. H.

RECORDING OF SPECIAL MERIT

LOEWE: Ballads and Songs, Prinz Eugen: Trommel, Trommel: Heinrich der Vogler, Die drei Lieder: Die Heilige Franziskus, Erlkönig; Der heilige Franziskus; Der Nöck; Die Grüfte der Liebenden, Dietrich Fischer-Dieskau (baritone); Jörg Dennis (piano). Deutsche Grammophon SLP 139116 $5.98.

Performance: Fischer-Dieskau in top form. Recording: Exceptional
Stereo Quality: Minimal

Even outside German-speaking countries, the composer Carl Loewe (1796-1869) has achieved a kind of immortality, for precisely everyone who has so much as a cursory acquaintance with the history of German song knows him as a composer of ballads who wrote the "other" Erlkönig. (He was a prolific composer in other forms as well, but little of this music is heard today, even in Germany.) Some, too, will be familiar with his most popular ballads through recordings: the Schwann catalog currently lists Herrmann Prey's Vox disc entirely devoted to the ballads (although Vox is no longer pressing it), and Hans Hotter's "Great German Songs, Volume Two" includes fine performances of Erlkönig and four more of the composer's most familiar solo vocal pieces. But I would wager a great many listeners will have their first exposure to Loewe through this new disc. It is difficult to imagine a better.

What do these ballads and songs sound like? I suppose it is no more dangerous to generalize about Loewe than about any other composer, but the task is complicated by the fact that my limited knowledge of his music has not given me any strong impression of a unifying personality. In the homely sentiments of such songs as Die Lübe and Die heilige Franziskus, he is close to Stöcher; at his most elaborate, as in the longer ballads, he often reminds me of Liszt—especially when he indulges his fondness for stretching sinuous vocal lines across arpeggiated accompaniments. In short, he was a gifted eclectic of no great individuality. But he need not be condescended to: I think anyone would conclude this after hearing the spell-binding phrases of Die Nöck, for example, or the sharply etched and dramatically Odensacrucert.

The contents of this recording are well chosen to provide a cross-section of the composer's solo vocal works. There are a relatively familiar ballads peopled with German folk heroes (Prinz Eugen, Heinrich der Vogler), gods (Oden Meeresrit), and gobins (Der Nöck); there are the charming Trommel, Trommel and Heilige Franziskus, in which the composer handles deity, there are a couple of unpretentious lieder on pious texts—Die Lübe and Die heilige Franziskus, and there is Die Grüfte der Liebenden, perhaps the most remarkable thing on the record, a macabre ballad lasting more than fifteen minutes and a piece that I would be surprised to learn had ever been performed on this side of the Atlantic. There is enough variety here that, even after several hearings, I could play the disc straight through without flagging attention.

Fischer-Dieskau is in rare form: there is little evidence of the upper-register trouble that has plagued him recently, and he seldom feels it necessary to lunge tonelessly at a kind of big sound that is simply no longer within his vocal capacity. In the amusing Hochzeitstanz he is marvelously funny without being vulgar, and he imparts genuine warmth to Der heilige Franziskus—he neither patronizes the song nor attempts to elevate it to something it is not. At my first hearing I did not have scores or texts, and while trying to "assemble" words from the flow of

I sense that he loses interest in making drama out of the narrative's substance—scant substance, to be sure, but this artist has so often transformed the ordinary into the memorable that I could not help feeling let down. The recorded sound is exceptionally clean and full, with a warm and solid bass, and the surfaces are blessedly silent. Robert S. Clark

RECORDING OF SPECIAL MERIT


Performance: First-class, affecting
Recording: Very good
Stereo Quality: Impressive

From being one of the stepchildren of the Mahler family, this symphony seems to have moved up in the world—at least to judge by the number of recordings that have turned up. It is a curious, moving, powerful work with a rather embarrassing program ("What the flowers tell me," etc.) later suppressed by the composer, a thirty-five minute first movement, and six movements in all. Even at that, it is in a sense, incomplete; its finale became part of the Fourth Symphony (thus explaining the anticipations of that work in this less familiar context). No. 3 now ends with an instrumental Adagio and the expected return of the voices never occurs. Still even the effect this produces—of a huge torso—does not mar the work but rather itself becomes part of its strength.

All of this is grasped and communicated with great power by Solti, and Mahler (and Solti) are aided no end by Miss Watts, by the remarkable English musicians, and by the excellent sound. In short, whatever possible argument there could be about details (and there could be few of those), this is an overwhelming performance. If you are into Mahler, by all means dig this.

E. S.

RECORDING OF SPECIAL MERIT

MENDELSSOHN: A Midsummer Night's Dream, Incidental Music; Overture: Scherzo; You Spotted Snakes; Intemecess: Nocturne; Wedding March; Dance of the Clowns: Finale. Jennifer Vyyvan and Marion Lowe (sopranos); Female Chorus of the Royal Opera House Covent Garden; London Symphony Orchestra, Peter Maag cond. London NS 1508 L 82.30.

Performance: Best of its breed
Recording: Superb
Stereo Quality: Adds magic

Most "incidental" music for Shakespeare's plays is indeed incidental and highly disposable, but there are a few scores—David Diamond's and Sibelius' for The Tempest come to mind—which not only match to perfection the spirit of their subjects but continue to make delightful listening in concert form. The most enduring of all is Mendelssohn's for Shakespeare's fantastic woodland comedy about the foolishness of mortals and the pranks invisible immortals play on us. Here recordings of all the magic and mirth of the play itself. The best way to hear it is when it is interwoven with the dialogue, as in the old RCA Victor three-record set which offered the play in an ex-

(Continued on page 112)
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CIRCLE NO. 34 ON READER SERVICE CARD

MOUSSORGSKY: A Night on Bald Mountain (see TCHAIKOVSKY)

MOZART: Piano Concerto No. 20, in D Minor, K. 466; No. 6 in B-flat Major, K. 238. Vladimir Ashkenazy (piano); London Symphony Orchestra, Hans Schmidt-Isserstedt cond. LONDON CS 6579 $5.98. © 80212 $7.93.

Performance: Excellent
Recording: Distant
Stereo Quality: Exceptionally fine

An excellent performance of a famous Mozart concerto and a respectable reading of an obscure one are the considerable merits of this record. The B-flat Concerto, which was completely unknown to me, is an elegant little gaiety work in the vein of the contemporary violin concertos and a pleasant contrast to the Simm and Djang of the D Minor. Ashkenazy is elegant (if not entirely stylish) for the one, dramatic and noble for the other, and he has excellent orchestral support. But the record has defects as well as merits. The recorded sound lacks presence—with Mozart one ought to be able to touch the sound; here the performers are off in some other acoustical room. And the review copy was excessively noisy.

RECORDING OF SPECIAL MERIT


Performance: Comme il faut
Recording: High-quality
Stereo Quality: Exceptionally fine

The notion that Haydn and Mozart resemble each other in any significant way, as I have recently pointed out in these pages, is hazily a notion I've never quite been able to put down. There are indeed resemblances in harmonic vocabulary, sometimes in structural procedure, even in melodic style. But as I think about it, I once heard playwright Edward Albee deliver a reply very much to the point here when he was asked, "Who has influenced you?" Mr. Beckett?—and to make matters a bit hairier—"Pinter?" The last is, of course, the English playwright who is roughly Albee's age and is also his chief rival for supremacy among playwrights who write in English. Albee conceded no influence upon him by Beckett, and expressed profound admiration for Pinter, who, as any student of the theater knows, has an almost tangible influence on (whom else but?) Harold Pinter. But he wisely observed that similarities such as one might note should be paid little heed—that it is dissimilarities that should be watched for. "After all, each of the writers you mention lives on the same planet, during the same era, in a world subject to the same political and philosophical fashions and trends. The wonder would be the appearance of a playwright who bore no resemblance to anything in this world."

Albee's reply may leave you still incapable of distinguishing Mozart from Haydn or Debussy from Ravel. But it is only on the surface that the similarities of contemporary artists are likely to be most readily spotted and glibly made issues of.

Consider the Haydn and Mozart sinfonias. Let's start with an area of common ground at which no one will balk: each, in its highly personal way, is a beautiful and original piece. Furthermore, I find each superior in interest and quality to many a more famous work by either. Each work, as well, is compellingly serious and elevated in tone. Each is also very ambitious as to structure and, for a piece so unified, of an almost alarmingly extended time span (Mozart: 32:23, Haydn: 21:40). Right along here, the resemblance ends.

We'll aware of the bad news that style is too often in the ears of the beholder. I'll take a plunge and submit that the pieces are ions apart in stylistic conception. Haydn's work creates a puzzling impression of regression to concerto-grosso tactics—until you listen carefully enough to discover that he has invoked rather than revived the form. The solo-instrumental detail, given its periodicity, is quite as onté as, say, Stravinsky's. and, I would guess, the underlying intention was not dissimilar. Altogether, Haydn's sinfonia strikes me as more inventive, adventurous, and willing to take chances than Mozart's piece. The latter, I hasten to add, is a lovely, rather sunburnt work; when I describe it as an estimable work (even for the Mozart catalog) I choose the adjective with care.

I like conductor Barenboim's work here; for that matter, I like it even better if the coupling was his idea. But, more significantly—even though he gets more help than usual from the contrasting natures of the pieces— he succeeds stylistically with that other matter I've been carping about. This, of course, is an approach to the music of these two composers that stresses their vastly important differences rather than their superficial similarities.

MOZART: Symphony No. 40, in G Minor (see Best of the Month, page 92)

POULENC: Trio for Oboe, Bassoon, and Piano; Sonata for Clarinet and Bassoon (see RAVEL; Sonata for Two Pianos (see BARTOK)

(Continued on page 114)
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I still am. And I should very much fear the loss of some valued part of myself if the day were ever to come when an on-the-nose performance of that moment (toward the end of this brief piece) when it launches into a bubbly waltz failed to delight me. For reasons best known to my subconscious, it always reminds me of the Paris that produced Garbo’s first unforgettable laugh in a film called Ninotchka.

Both of the Poulenc pieces date from a period when this composer’s frivolity was at least a gesture of defiance (of the pompous German post-Romanticism and Expressionism, of course) as it was a desire to give uncomplicated pleasure. The formal plant are aggressively and, at certain moments, almost insatiably simple—if you let the composer get you where he wants you. If you don’t have any hang-ups in these musical areas, you will, as I do, probably just listen and enjoy.

Adding the pieces by Jean Françaix to the program will be adding insult to injury to the man who believes that, say, Max Reger wrote music of great Significance and Depth and Everything. And even for those who go along with the unified aesthetic premise underlying the work of each composer represented on this program, the addition of the Françaix pieces may seem like an incontestable case of having joined the lily. It strikes me that the only musician I have ever heard who, probably (of the possibly important composers of the future), the only musician I have ever heard who, probably, is with dismay that the composer get you where he wants you. If you don’t have any hang-ups in these musical areas, you will, as I do, probably just listen and enjoy.

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The photograph was taken during a rehearsal and shows one of the participating groups under my direction. (A separate orchestra in the top balcony, not shown in the photograph, is being simultaneously led by Dr. Hunsberger.)

The recording was made by using four channels simultaneously on 1/2-inch wide recording tape. Neumann U-47 microphones were spaced in a rectangular array in the audience seating area, to produce a recording which is played back through four speaker systems, one in each corner of the listening room. Four AR-3a speaker systems were used as control room monitors during the recording and playback.

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SEPTEMBER 1969
and Mr. Sahil's writing for it includes a lot of hammy "traditional" musical material culminating hortently in a set of variations on "The Last Rose of Summer." Mr. Sahil describes these aspects of the piece for us: "... and almost immediately the element of satire or camp, which is the first thing anybody notices about the piece, gave way to a strange ambivalent attitude, a kind of longing for the old music and the world that produced it."

Susan Sontag, by virtue of her famous, honorable, but finally unconvincing essay "Notes on Camp," brought an essentially esoteric word into common usage—a word the very existence of which could be accounted for by the fact that "camp" is simply not subject to precise definition. But when we find Mr. Sahil thinking of A Matter of the Dead as "camp," then we must face the fact that the word has lost all semantic and connotative value and ought to be consigned to some linguistic morgue. The indefinable "thing" the word once alluded to still exists; what we need now, along with definition and an end to the war in Vietnam, is a new word to describe it, and safeguards to keep the word secure from indiscriminate misuse.

J. K. Randall's Lyric Variations, whatever its shortcomings, at least doesn't lay claim to being "camp." Quotations attributed to him on the sleeve are couched in the convoluted syntax of The New Criticism, and I believe every word of them even though I perceive little of what is described aurally. I rather guess the work to be rooted in the school of electronic composition that attempts to imitate the rigid academism of serial-type organization (here even on -vi-)

SCHUMANN: Symphonia No. 9. in C Major ("The Great"), Philadelphia Orchestra, Eugene Ormandy cond. COLUMBIA MS 7272 $5.98.

Performance: Good
Recording: Good
Stereo Quality: Good

This most dynamic of large-scale lyrical symphonies gets a surprising polite and undynamic treatment at Mr. Ormandy's hands—a peculiarity that has cropped up in a number of previous instances of standard Austro-German repertoire in which Ormandy has had to make a choice between vigor and refinement. The sounds are all very beautiful and the German repertoire gets a surprising polite and unmannerly treatment at Mr. Ormandy's hands—a peculiarity that has cropped up in a number of previous instances of standard Austro-German repertoire in which Ormandy has had to make a choice between vigor and refinement. The sounds are all very beautiful.

Arthur Grumiaux (violin); Lamoureux Orchestra, Anent It Performance: Excellent Recording: First-rate Stereo Quality: Good

Various of the études dating from Scriabin's early twenties have been recorded by Horowitz and Richter; but, as the sleeve note states here, this Connoisseur Society disc by the New York teacher-virtuoso Morton Estrin offers the first recording of the entire Op. 8. The disc shows Scriabin a sovereign master of piano language, but still under the influence of Chopin, and, to a lesser extent, of Liszt and the Wagner of Tristan (as, for example, in the Étude No. 2). The plangent Chopin rhetoric is most evident and effective in the list of the études, which recalls the D Minor Prelude of the Liszt master. My own special favorite in Op. 8 is the passionately lyrical No. 11, in B-flat minor, which Estrin plays with such bravura.

RECORDING OF SPECIAL MERIT


Performance: Excellent
Recording: First-rate
Stereo Quality: Good

Here, but the reading is oh so dull when heard next to those of Krips, Szell, or Toscanini. Enough said!

D. H.

RECORDING OF SPECIAL MERIT

STOCKHAUSEN: Neues Musikverlag 24. "Faschingsschwein" with a detailed, almost percussive propulsion that is as surely of this century as Apollo 11. The ensurng Romney is all but drowned away at no expense to its lyric grace. Somewhat later, he plays the Intermezzo with such understatement that, for the first time, I heard it almost as a mere transition to the splashy finale.

Scoring his work in the rest of the program would merely be repeating the same observations about different pieces. In the last analysis, it should probably be suggested that Schumann ranks high among Romantics whose piano music is structured into salient, meaningful shapes with great delicacy; you may not like Arrau's virtually businesslike approach to some of this music, but I don't see how you can deny him the accomplishment I have described.

D. H.

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CIRCLE NO. 32 ON READER SERVICE CARD

SEPTEMBER 1969

C-153
Takemitsu's Coral Island is a big piece for voice and orchestra. It is a vast, dramatic, powerful, and exhausting experience. The Stockhausen, although its length is presumably variable, is far more organized. It has a cutting edge like a steel blade and a tense, nervous quality that never lets up. For all that goes on, it has a curiously flat, one-dimensional surface across which patterns—simple, complex, familiar, unfamiliar, static, dramatic, dense, thin, electronic sounds—are traced. The Cage is an experience and even taken in big doses, an engrossing one. The Stockhausen is an orchestral—fascinating, disturbing, monumental, melodramatic, powerful, and exhausting.

The difference is, I suppose, the difference between a Rudi Durham and an Abbé Hoffmann, between German SDS and the Yippies. Anyway, it will give your equipment a workout; but don't expect to be able to detect any system distortion—you'll never be able to tell.

The sound elements are the voices of one woman and one man. They appear at many times in different pronunciations, with various intonations and speeds. None of this in any way accounts for the uncannily bizarre effect of the piece, of course, and, as you might guess, it is a natural for unearthy stereo treatment.

Water Music (1960) is not only longer but, simply as auditory experience, less compelling than the rather extraordinary idea behind it. For in the piece, again according to RCA's jacket annotation, "all sound elements are sounds of water drops. Each drop is changed and given rhythm by manipulating the recorder." All of this is interesting enough for about the first half of the piece, but after that, one water drop begins to sound pretty much like another to me.

Coral Island is a big piece for voice and orchestra that produced an odd reaction in me. Its stylistic ambiguity, on first impression, is the "advanced" twelve-tone manner we've heard so much of in the West during the last twenty years. But, in spite of this, one soon realizes that Takemitsu has given an extremely personal (dare I say Japanese?) inflection to this generally impersonal "international" style. The piece is thunderously dramatic and unswervingly lyrical in impulse. And the composer orchestrates with such overpowering skill and originality that, clever as he is with magnetic tape, one hopes that he will give as much attention as possible to the orchestra.

In sum, Takemitsu is not only the best contemporary Japanese composer I've yet to hear, but a young man who can stand with his peers in any land. The recorded sound is superb.

Stereo Quality: Excellent

The designation "rich-textured," as applied to Mr. Ozawa's reading of the Tchaikovsky Fifth Symphony, does not mean lush, but refers rather to the care he takes to bring out all the significant linear strands in the music—as opposed to concentrating solely on the big tunes and the fiercely dramatic climaxes. This makes for a rather different sort of Tchaikovsky than one hears from, say, Markievich or Bernstein, but it is by no means lacking in interest or vitality. The Ozawa tempos are straightforward and unexaggerated. The same characteristics mark his treatment of the all-too-easily vulgarized Night on Bald Mountain. Good, rich sound throughout.

TCHAIKOVSKY: Symphony No. 5, in E Minor, Op. 64. MOUSSGORSKY: A Night on Bald Mountain. Chicago Symphony Orchestra, Seiji Ozawa cond. RCA LSC 5071 $5.98. @ RSR 1119 $6.95.

Performance: Rich textured
Recording: Good
Stereo Quality: Excellent

The designation "rich-textured," as applied to Mr. Ozawa's reading of the Tchaikovsky Fifth Symphony, does not mean lush, but refers rather to the care he takes to bring out all the significant linear strands in the music—as opposed to concentrating solely on the big tunes and the fiercely dramatic climaxes. This makes for a rather different sort of Tchaikovsky than one hears from, say, Markievich or Bernstein, but it is by no means lacking in interest or vitality. The Ozawa tempos are straightforward and unexaggerated. The same characteristics mark his treatment of the all-too-easily vulgarized Night on Bald Mountain. Good, rich sound throughout.

VAUGHAN WILLIAMS: Sinfonia Antartica (Symphony No. 7). Heather Harper (soprano); Sir Ralph Richardson (speaker); Ambrosian Singers, and London Symphony Orchestra, André Previn cond. RCA LSC 5066 $5.98.

Performance: Musical, but short on profile
Recording: Superior
Stereo Quality: Excellent

It came as something of a shock to me to be informed by RCA's jacket annotation for this (Continued on page 120)
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Release that, as an habitual movie-music watcher (if you will block my metaphor), it was over twenty years ago—1948—that I approached New York's Little Carnegie Theatre to observe a British film called Scott of the Antarctic—largely because its background music was composed by Ralph Vaughan Williams. Truth to tell, I remember little about either the movie or its score, and, so far as I know, I have never heard the Sinfonia Antartica which the composer, some three or four years later, developed almost entirely from the materials of his film score.

For reasons that have always eluded me, even the finest composers—Lambert, Ravel, Musgrave, and Vaughan Williams—stumble and often fail in the attempt to forge significant works from even the best film scores. Most often than not, the most 'successful' ones are cast in the form of unpretentious suites whose composers are content merely to entertain and, in the process, add another work (probably bearing the title of a celebrated film) to their catalogs. There are exceptions, of course, but not many.

Certainly, Sinfonia Antartica is not one of them, particularly if one views it chronologically with the major achievements of this composer's three preceding symphonies in mind. In this light, the piece can only be regarded as downright regrettable. I won't pretend I've listened to the recording twenty times, but I've heard it often enough to be convinced that no matter what its structural logic may be in theory, to my ears it rambles, wavers, and sounds padded with descriptive effects (some of them distinctly glacial)—even to the extreme of introducing a wind machine into the orchestration. Presumably to clarify this amorphous, alarming work, Vaughan Williams has interspersed spoken 'superscriptions' which are of no help whatever to me, at least, and only add to the thoroughly uncharacteristic pomposity of the overall gesture. Those who have read my comments on Vaughan Williams' work in the columns of this magazine over the years will perhaps recall that I am a more than ordinarily enthusiastic admirer of the composer who single-handedly elevated British music to a logical and highly suggestive, but not unqualified, bomb.

I don't envy André Previn the problems he faced—consciously or otherwise—in preventing this score from coming completely unglaubt. Since Previn is himself a seasoned composer of film music, he was perhaps troubled by the rambling continuity of the piece. I won't swear to it, but sensitive and musical as his conducting may be, I sense strongly that a more disciplined hand and less indulgence might have helped, although scarcely have saved, a piece that to my mind just doesn't work.

The orchestra plays beautifully, and RCA has lavished its finest recorded sound and sublimest stereo treatment on the release. If. F.

VIUXTEMPS: Violin Concerto No. 5, in A Minor (see SAINT-SAENS)

PHILIPPE DE VITRY: Motets (see ANONYMOUS)

WAGNER: Die Meistersinger, Prelude to Act I (see BRAHMS)

Collections

Recording of Special Merit

AMERICAN BRASS MUSIC: Ives: From the Steeple and the Mountains (1901); Song for Harvest Season (1914); Chromatic Adagio (1909 & 1910); Brehm: Quintet for Brass (1967); Brehm: The Fourth Millennium; Phillips: Music for Brass Quintet (1967); American Brass Quintet; Jan DeGaetani (mezzo-soprano, in Song for Harvest Season); Phil Kaplan, Steve Marcus, Claude Fontanella (percussion); Riverside Church Carillon. NONSUCH II 71222 $2.98.

Performance: A-1

Recording: Splendid

Stereo Quality: Highly effective

The angular and Riegerish Quintet of Albert Brehm (b. 1925) and the intensely colorful and expressionist Music for Brass Quintet of Peter Phillips (b. 1930) were both written for the American Brass Quintet and are, in their respective idioms, highly effective works, with the Phillips being the more arresting of the two.

But the real reason d'être for this disc, as far as I am concerned, is the extraordinary three-minute Charles Ives piece, From the Steeple and the Mountains, which was conceived for brass and two sets of four church bells and results in a kind of cosmic tower music. This is exactly what one hears on this recording, thanks to the tracking in of the Riverside Church carillon, and it is a stunning realization of the cosmic grandeur implied in Ives' epigraph: 'From the Steeples—the Bells!—then the Rocks on the Mountains begin to shout!'

Interesting in its way, but of minor importance by comparison, is the 1984 polychoral Song for Harvest Season for solo voice and brass, and the canonic-stretto study, Chromatic Adagio. A percussion obligato has been realized here from sketchy indications in the score, but I wonder if Ives really intended such a rhythmically regular prosenium effect as that which emerges here.

The Henry Brant (b. 1915) work is a stereo-anthrophilic speech-rhythm piece (complete with H. G. Wellsian apocalyptic program) rather typical of his output over the past decade; it is highly suggestive, but not
necessarily rewarding to repeated listening. It's a fine workout for one's stereo equipment, however.

The Ives Steeple and the Phillips work make this disc for me. The playing is altogether superb, and the recording excellent.

D. H.

RECORDING OF SPECIAL MERIT


Chest. Ernestine Schumann-Heink (contralto); orchestra: accompaniment. RCA VICTROLA 0958.$2.50.

Performance: Excellent Recording: Ancient, but well restored

Although two Schumann-Heink recitals have been previously released by the Canadian Roopen label (duplicating some of the material available here), this is the first release from the authentic RCA source—presumably derived from original matrices—devoted to that legendary lady. And she was legendary indeed, with a sense of humor matching her amie grith, and with that remarkable longevity: Schumann-Heink's active singing career exceeded fifty years. She was already forty-five in 1906 when the earliest of these recordings was made. This recital should be savored for the unique Schumann-Heink qualities: the weighty contralto voice, coupled with an unbelievable agility; the technique that enabled her to float pianissimo tones in the high soprano register, or to execute the delicate turns sprinkled throughout the Roopen aria; the exquisite legato line buttressed by extraordinary breath support; and her phenomenal range—this material van Egmond brings virility and intelligence are apparent in these varied accompaniments are equally impressive. The recital as a whole, with the single exception of the Biber serenade, is a fine achievement. The reproduction cannot be faulted, and texts and translations have been included. Baroque enthusiasts should not hesitate to obtain this disc, but I would advise others to hear it first because of the often rarefied repertoire.

L. K.

RECORDING OF SPECIAL MERIT

SONGS OF THE BAROQUE ERA: Krieger: Der Oberstand ist ihr verweint; Der Liebe Nacht breche Tag und Nacht; Der Rheinische Wein, lustig zu sein; Alber: Waldfahrer; Loh der Freundschaft; Verfabricken, Biber: Serenade; Quoy Huygens: Herrchen; Clorinda; von der Liebe; Ich wall auf der Erden bin und bin. Schütz; Eucharistisch mein, a Herm Goetz. Purcell: Fly swiftly, ye birds (Z. 369); The Father Brave (Z. 342/4); Return, revolving Rebel (Z. 632/16). Huysens: Svenende; Quoy Clarinde, in part; Lully: Ushara; benne.

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CIRCLE NO. 66 ON READER SERVICE CARD

SEPTENBER 1969
Fifteenth in a series of short biographical sketches of our regular staff and contributing editors, the
"men behind the magazine"—who they are and how they got that way. In this issue, Contributing Editor

PAUL KRESH
By WILLIAM LIVINGSTONE

When Paul Kresh's new book The Power of the Unknown Citizen was published earlier this year, New York Times book reviewer Thomas Lask asked him, "When did you ever find time to write a book?"

The question is a logical one, for Paul has a full-time job as vice-president in charge of production and promotion at Spoken Arts, Inc. In addition, he is an active radio and TV producer and director, he reviews books regularly for Saturday Review, he writes articles for such magazines as Pageant, Playboy, and Performing Arts, and is on the Board of Governors of the National Academy of Recording Arts and Sciences. Since 1963 he has written monthly record reviews and frequent feature articles for Stereo Review. He is the author of many short stories and poems, a novel, and even an opera libretto based on Nathaniel Hawthorne's The Marble Faun (the libretto is still in search of its composer).

Paul says it was not so much a question of "finding time" for the new book, but of deciding how best to spend the time available. "I lead an extravagant life, spending a lot of time and money on travel and going to the theater, movies, and concerts. This means that in my work I have had to eliminate everything that I can get someone else to do for me. For example, I am a champion typist, but I can no longer afford to type my own copy."

The Power of the Unknown Citizen deals with civic problems and gives some encouraging answers to the question "What can one person do?" Commissioned by J.P. Lippincott Company, the book has been favorably reviewed in Saturday Review, the Los Angeles Times, the Chicago Tribune, and elsewhere. A condensation of the book recently appeared in Coronet.

A native New Yorker, born in 1919, Paul attended George Washington High School, City College, and New College at Columbia University. For the next few years he held a variety of writing jobs ranging from newspaper reporter for the Newark Star-Ledger to script-writer at radio station WNYC in New York. His scripts for a musical series on that station won two Ohio State Awards. For ten years he was motion picture director for the United Jewish Appeal, where he produced a score of award-winning documentary films featuring Broadway and Hollywood stars. In 1959, Paul became director of public relations for the Union of American Hebrew Congregations, the central body of Reform Judaism in the Western Hemisphere, and editor of that organization's national magazine American Judaism. He also initiated the award-winning radio series Adventures in Judaism, which he still writes, directs, and produces.

In 1967, Dr. Arthur Luce Klein, president of Spoken Arts, invited Paul to join his firm, which produces spoken-word recordings, tapes, filmstrips, and multi-media educational packages. Since he has been with the company, Paul has directed dozens of filmstrips and recordings. Among this year's releases he is particularly proud of the six-disc album "The Greek Myths" read by Julie Harris and Richard Kiley. At present he is editing an eighteen-record survey of American poetry from Edgar Lee Masters to the present, in which one hundred poets read their own work.

To avoid a conflict of interest, when he joined Spoken Arts, Paul asked Stereo Review not to assign him spoken records for review. The editors engaged Clive Barnes, Dance and Drama Critic of the New York Times, to handle the spoken assignments, and since then Paul has played the field, reviewing everything from pop and rock to the classical repertoire.

"I enjoy being the roving back among the reviewers," he says, "just as I have enjoyed and learned from writing in so many different forms. My musical education was not exactly typical. Although I had violin lessons as a child, I learned more about music from my father's phonograph. When I grew up, I came to the classics via contemporary music. One of the first pieces of music that really excited me was Honegger's Pacific 231, and I then discovered the music of the eighteenth and nineteenth centuries via the music of the twentieth."

Paul lives in the kind of bachelor apartment non-New Yorkers think all men about Manhattan inhabit: a Greenwich Village penthouse with a large picture window that looks out on a terrace complete with a live willow tree and a stunning view of midtown Manhattan. His large collection of paintings competes for wall space with shelf after shelf of books, records, and tapes and the plaques and scrolls from all these awards he has won.

The apartment is generously furnished with electronic equipment—an organ, stereo installation, color TV, and several tape recorders—but Paul denies that he is one of the McLuhan people. "The pseudo-sophistication of that line that the medium is the message gives me a pain. TV screens, tape decks, and so forth are marvelous extensions of our senses, but intrinsically the medium alone is meaningless. I hope the fad passes soon."

"I abhor fashions in music. They make people commit the only real cultural crime, which is pretending to feel what you think you ought to. Many people are ashamed of liking a composer who was 'in' last season but is 'out' now. And I am repelled by the weariness with which people turn away from the familiar, such as the works of Rimsky-Korsakov. I never mind being asked to say something new about the old chestnuts."

"When the chips are down and I actually buy records for my own pleasure, I return again and again to Beeethoven, Debussy, Sibelius, and Tchaikovsky and the great show albums—my favorite is On the Town. I also play a lot of American music—Barber, Copland, and Paul Creston. I would hate to think I might outgrow any of these. I am loyal to my likes and don't reject old favorites—I just add new ones. For me the wonderful thing about music is simply that it exists at all. As in great paintings, books, and sculpture, you keep meeting yourself and others in music."
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Performance: Mad and maddening
Recording: Excellent
Stereo Quality: Overwhelming

You never know what's going to pop up on a pop record these days. This one arrives complete with a photograph of a rib cage and a human heart—and complete texts for all the songs. On the record itself these latter are not only walled, chanted, shouted and moaned to a deafening orchestral accompaniment, but further ornamented with the sounds of rising elevators, wind machines, squalling babies, ringing telephones and—need I add—heartbeats. The result is the kind of trip that, for all I know, may result in lasting damage to the psyche, as well as the eardrums. The lyrics—I'm assuming that what they are—deal with the thrills of tuning oneself in, apparently with the aid of drugs, "feeling rather high" (repeat six times), and "a thousand thoughts of love from you to me"—not a single one of them coherent. Quick relief may be obtained by lifting the disc from the turntable and, as one's mind "goes drifting and fading away," sailing it, gently and dreamily, out the window. P. K.

BELA BABAI AND HIS FIERY GYPSIES: An Evening at the Chardas. Bela Babai and His Fiery Gypsies: Bela Babai (solo violin); Josef Axin (second violin); Gyorgy Havas (accordian); Katalin Szoradi (cymbalum); Geza Lakatos (cassette); Zoltan Zorandy (piano). Bora Kevergo (Bok's Lament); Hungarian Medley No. 1; Slavic Medley; Hungarian Medley No. 2; Hungarian Medley No. 3; Hungarian Medley No. 4; Hungarian Medley No. 5; Horvagata (The Gypsy); Israeli Medley; Russian Medley; Serbian Medley; Goulash (The Singing Bird). MONITOR MFS 700 $4.98.

Performance: Zigeuner's delight
Recording: Good
Stereo Quality: Good

Bela Babai, in his red vest with the gold fleur-de-lis, bending his flitatosious violin over a flaming shish kebab, has plied his trade from the Blue Danube Café in Chicago to Zimmerman's in New York City "aided and abetted," as the liner notes say, "by his countrymen." What would Hungarian cuisine be after all without gypsy music? Now you can hear it at home in every dialect between visits to your favorite plush Hungarian eatery. The violins sigh, the accordions murmur, the cymbalm cymbles, and the trumpets and trombones are safe in their yellow vests, the forest is green, the chardas is heavenly, and your goulash will be ready in a few more minutes. Play, gypsy! P. K.

JOAN BAEZ: David's Album. Joan Baez (vocals); orchestra, Grady Martin cond. If I Knew; Rock Salt and Nails; Hickory Wind; Just a Closer Walk with Thee; The Trump on the Street; and five others. VANGUARD VSD 79308 $5.98, ® 93038 (3 1/2) $5.95, © 93038 $5.95, 4 93038 $5.95, 6 93038 $6.95, © 93038 $5.95.

Performance: Superb
Recording: Excellent
Stereo Quality: Excellent

In a self-seeking, cynical, and self-destructive world, the essential goodness of thought and decency of action that Joan Baez projects would seem to belong to another age of American life; that of the Unions who set up colonies throughout America in the mid-nineteenth century. This latest album is dedicated to her husband David, who has been sentenced to three years in prison for returning his draft card to the authorities and declaring he did not want to serve in the armed forces. In her moving liner notes, Miss Baez describes the arrival of the spring of 1969 and then goes on to explain her husband's position—and her own—on the prison sentence. Whether you agree with her politically or not, her final summation seems beyond dispute. "You and I must, with our lives, build a world where we are as sure of the perpetuation and flowering of life as we are of the triumph of spring:"

The music and performances here are all Baez at her peak. Her voice is still an enchantment of purity and beauty. And here she is back in the sort of repertoire in which she first achieved fame and which she probably does better than anyone else in the world—i.e., traditional songs such as Which One's in New York City "aided and abetted? and Poor Wasking Stranger, in stunningly simple arrangements. These are mixed with newer songs, such as the lovely Hickory Wind and Green, Green Grass of Home. The fifteen-man orchestra led by Grady Martin supports her superbly. This is Miss Baez' best album in some time, and it re-establishes the fact that, when the material is simple enough to convey direct emotions and does not try to sermonize politically or otherwise, she is a superb artist. Whether she will, in the future, be able to persevere in what I believe are really her convictions is a question impossible to answer, but there is no doubt that as a singer she has already become something of legend in her own time. P. R.

BELL: Happy Days. Children of Paradise. Bell (vocals and instrumentals). Greetings!; So Lone and So Slow; Like Cats; Happy Days; What Difference?; Don't Say a Word; and four others. VEVE/FORECAST FTS 490 $4.98.

Performance: Superb
Recording: Good
Stereo Quality: Good

Bear (Artie Traum, Eric Kaz, and Steve Soles) is a middle-of-the-road group. Their material is fashionable enough, as evidenced by their opening number, Greetings!, which is about what you think it is about. Happy Days has a c&w violin in its orchestration, another "in" thing these days. What Difference? has long interludes of jazz-rock guitar playing and nice vocal performances. The best thing here is Eric Kaz's song Won't Be Hurried Round, which he sings in a fine style. As with so many other groups, one has the feeling that its members have been assembled by highly professional hands, set to work to write material for themselves, and then recorded in a glossy style squarely...
aimed at the mass market. Nothing wrong with that, of course, except that in these days of groups like Jefferson Airplane, Big Pink, and the New York Rock-an-Roll Ensemble, it scarcely seems worth the trouble. P. R.

RECORDING OF SPECIAL MERIT

BOBBY BURCH AND KEN FISHLER: Bobby and I. Bobby Burch and Ken Fisheier (vocals and instrumentals). Love Is for the Shy One; 5:69; Michael from Almatron; Everybody's Gone to the Moon; Hui Sat Bul; Ben Lovam Lawmon; and six others. Imperial LP 12140 $1.98.

Performance: Freshly naive
Recording: Excellent
Stereo Quality: Fine

Bobby Burch and Ken Fisheier reminded me of Jackie and Roy Kral when those two were young and naive. I doubt, though, that Jackie and Roy were ever musically naive. They were always extraordinarily adept in the intricate world of jazz, and they played with the times into the even more intricate world of pop-rock, which benefited from their vast musical sophistication. Burch and Fisheier obviously have none of that musical sophistication, but they have all the charm. Like Roy, Ken plays the piano and sings, and he has also written much of the material here. Bobby sings and laughs. These two are highly original and talented: it's a pleasure to listen to them, and I know the pleasure will increase as they gain stature and maturity. Bobby has a lovely smile in her voice and Ken has a masculine protectiveness in his. Bless their youthful, talented little heads!

R. R.

RECORDING OF SPECIAL MERIT

MAURICE CHEVALIER: Maurice Chevalier, Vol. One. Maurice Chevalier (vocals); orchestra, Leonard Joy, Nat Finston cond. Hello! Beautifully; Valentine; Mimi; 06; That Mitz; Paris, je t'aime d'amour; Manon Lecz; Bonjour Louise; Les Amours; and seven others. RCA LPM 561 $1.98.

Performance: Immortal
Recording: Good

This collection of songs is drawn primarily from the great Maurice Chevalier's first American films. Although the liner notes (and very fine ones they are, by R. A. Israel) claim the songs date from 1928 to 1935, I see nothing here dated later than 1932. It doesn't really matter, because this is one of those albums that could come from Edison cylinders and still be an essential item in every record collection. These are the performances on which his reputation in the English-speaking world was based. Ironically, perhaps, many of them here are in French (but Mimi, Louise, Mitz, and Hello! Beautifully are in English). English versions of all the songs here have been available from time to time, and may still be. Except for the language, the two versions are identical in every case: same orchestras, same orchestrations, and recorded at the same time. It was common practice in the early days of talkies to make two or even three versions of films, in different languages, simultaneously—often with different players in leading roles. International stars such as Chevalier would perform in both versions, but perhaps with different supporting actors. Garbo's films, for instance, were always made in English and German. Whether in French or in English, however, these recordings are not just fascinating documents but are still wonderful entertainment; one can only guess at the impact they must have had at the time.

Chevalier was already well into his thirties when he made his American film debut. Behind him were years of playing the music halls and musical-comedy theaters of Paris, where he was an established star; therefore, what burst upon the American public in his first film, Innocent of Paris, was no tentative young song-and-dance man but a completely developed performer able to carry a film with ease. Two of his most famous numbers from that first sensation, Valentine and Louise, along with the not-so-well-remembered Les Amours, are included here. It is incredible to think that they were recorded forty years ago, and even more incredible to hear what great fun they still are today. Everything here is to some degree an already established classic—at least to those familiar with this great entertainer and his performances. Everyone will have his own favorite; mine is— and has been for many years—Paris, je t'aime d'amour, which Chevalier first sang in Lubitsch's The Love Parade. It is an avowal of love to the city of Paris, a city that has, along with much of the rest of the world, returned the feeling to him for almost eighty years now.

R. R.

THE CHICAGO TRANSIT AUTHORITY: The Chicago Transit Authority (vocals and instrumentals). Questions 67 and 68; Listen; Poem 58; Free Form Guitar; I'm a Man; Liberation; and seven others. Columbia GP 8 two discs $5.98, O 18 10 0726 $5.98.

Performance: Bloated
Recording: Good
Stereo Quality: Good

The Chicago Transit Authority, a seven-member group, has been performing across the country for the last year, and this album shows it in many ways. All of the material sounds well rehearsed and there are few rough edges. Also, unfortunately, much of it sounds just like set-piece stuff that has been performed again and again. Perhaps this is understandable when the tracks are as long, ambitious, and frenzied as they are, but it does take away some of the natural vitality of the music. There is a certain patness here which seems to make me unusually antithetical to real, basic rock. But then again, I often had the feeling that this was the essence a rock group but more an aggregation of good musicians playing rock, rather like one of the big bands of the past playing a gig with a lot of fill-in musicians.

The two discs here contain a lot of material, but one very soon gets the feeling of having dropped into a rock recital that calls not for participation in the music but merely respectful attention. In a way, too bad, because all along I also had the feeling that if the group would simplify things and start to enjoy what they were doing, there would be a lot more in it for me.

R. R.

RECORDING OF SPECIAL MERIT

PETULA CLARK: Portrait of Petula. Petula Clark (vocals); orchestra, Ernie Freeman arr. and cond. Happy Heart; The Words of Your Mind; Losing Things; The Ali; When I Was a Child; Let It Be Me; and six others. Warner Brothers 17899 $4.98.

Performance: Accomplished
Recording: Excellent
Stereo Quality: Excellent

This is another beautifully produced, beautifully performed album by Petula Clark. She is really an extraordinarily fine pop singer, whose only drawback, it seems to me, is a paucity of feeling and involvement in her interpretation. In If Ever You're Lonely, she depends on the quality of her voice to put the song across. I find this doubly strange, since I have seen a sample of her acting on film, and a very sensitive and intelligent performance it was. The root of the trouble may be that Miss Clark was a pop star while still in her teens, and during that time may have had to make her voice do the job that her emotions actually should have, since she was often singing material beyond her years. This aside, I find her an appealing and expert pop singer at every level. Highly recommended.

R. R.

RECORDING OF SPECIAL MERIT

COOK E. JARR: Pledging My Lore. Cook E. Jarr (vocals); orchestra, Bob Finiz cond. Pledging My Lore; Do You Believe in Magic; I Felt a Carpenter; Reason to Believe; The Lady Came from Baltimore; Red Balloon; and three others. Warner Brothers 4159 $1.98.

Performance: A rose by any other name
Recording: Fine
Stereo Quality: Excellent

It's hard to take seriously a guy with a name like Cook E. Jarr. And when the cover picture shows him sitting inside a cookie jar, dressed in a flowered suit and flowing sleeves, it's hard to seriously believe Cook E. Jarr is real. But the first warm husky notes he belts prove he's a serious singer who evidently disdains the established laws of success and is confident that a name will neither help nor hinder his music. Of course I may be in error in assuming that Mr. Jarr's name is invented. There may be a lot of Jarrs in (Continued on page 128)
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SEPTEMBER 1969

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the world, including Door A. Jarr and May O. Jarr, and even little Jeff E. Jarr.

If Cook wants to camp with his name, ok he's in the country in a way, because he is a first-rate singer with a big charming baritone voice which he uses easily and naturally. He also has excellent musical taste. Of the nine songs on this record, four are by Tim Hardin. In my book, anyone who digs Hardin can't be a crumbling Cook E. Mr. Jarr is backed up by some very fine professional arrangements. "Pledging My Love" is a pleasant and groovy experience.

FÉRÉ GRIGNARD: Captain Disaster
Fére Grignard (vocals), orchestra. I Won't Have a Dance, Tell Me Why; Vance Hey; My Friend; Hurricane, and five others. Vanguard VSD 72988 $9.98.
Performance: European minstrel
Recording: Very good
Stereo Quality: Good

The international catholicity of today's popular music styles is well demonstrated in this collection by Belgian singer Fére Grignard. Called "the Bard of the Barricades" during the student-worker disturbances in France last year, Grignard (like many European jazz musicians) is a more convincing imitator than a creative performer. He manages to assume the coloration of an assortment of styles-Bob Dylan imitations, countrywestern crooning, blues, soul-jazz, and virtually every other musical stop in today's pop eclecticism. Stylistic mimicry may be enough for some listeners—many, in fact, may prefer it—but for my tastes Grignard's version of Dino Valente's Little Opus more than an apt description of this group's work. R. R.

DELANEY & BONNIE: Accept No Substitute
Delaney & Bonnie (vocals and instruments). Get Together Today; Someday, Mama: When the Battle is Over; Dirty Old Man; and five others. Elektra EKS 74039 $4.95, 8 1099 (3/4) $5.95. 14 1089 $5.95, 8 1099 $5.95, 8 1099 $5.95.
Performance: Holy rolling modern times
Recording: Clap, clap, rock, rock
Stereo Quality: Fine

Delaney and Bonnie are very good-humored "down home" type folks who sing real good. They have a lot of friends who seem to drop by and give them a hand. That just makes everything even more charming. Down home, or wherever, Delaney, Bonnie, and friends are fun to hear. They are very much today, demonstrating the modern parallel's desire to express himself musically through gospel-type music. So much about this current crop of creative folk snatches of meeting-house ways, even their costumes. We should all be such gentle people in our hearts—Christian, I believe it was once called. There are a lot of good old-fashioned Christian gospel songs being spewed around lately: Delaney and Bonnie and friends are right in there with Soldiers of the Cross and facsimiles thereof. Nobody gets hurt, and if you let yourself go with their old-fashioned revival sound, you just might learn something. R. R.

THE DEViants: Disposable
The Deviants (vocals and instrumentalis). Somewhere to Go; Swanson and White: Janie's Song; You're Gonna Hold Out, Fire in the City; Let's Let The Supernovas; and seven others. Sire SES 970055 $4.98.
Performance: Loud
Recording: Fine
Stereo Quality: Okay

When someone shouts at me over and over that he's got to find some place to go, all the while away and awash in self-pity, I'm tempted to tell him where I think he should go. Just as I was about to shout back at the Deviants, they started to get into their mercurial acid rock, and I actually listened. Although the begging and pleading in their opening song, Somewhere to Go, continued, I found the music goofy. The Deviants do shout a great deal, but fortunately they play louder than they shout, and they have created a sound remarkably like the Doors', Wild Thing, especially on You're Gonna Hold Out, and like the Monkees and the Papas on Fire in the City. The lyrics of the latter are bitter-sweet and frivolously with irony, and they work very well within the musical framework of the arrangement. This song is by far the best in the album.

All told, however, I find the title of this little opus more than an apt description of this group's work. R. R.

THE ILLINOIS SPEED PRESS: The Illinois Speed Press (vocals and instrumentalis). Get in the Wind; Have Today; Day the Price; Be a Woman; Sky Song; Free Ride; and five others. Columbia CS 9792 $9.98, HC 1201 (3/4) $7.98, 8 18 10 0734 $6.98.
Performance: Stop the Press, I want to get off!
Recording: Fair
Stereo Quality: Good

I'm gonna tell it like it is, man. I mean like this record really puts me down. Like they start off with this Overture, and there are all these guys that call themselves the Illinois Speed Press fooling around in this recording studio singing bits of songs, trying out their instruments and like generally making a noise like three tapes running simultaneously all from different sessions. It's supposed to blow your mind—like it was the Excedrin headache number 35. Then they wail through something called Get in the Wind and it's supposed to be psychedelic but it's really more three years ago and man that is like a lifetime ago in rock. I listened to a few more bands, but like it was all more of the same thing, and since I was already late for the protest march I decided I'd send this one to my parents in Palm Beach. My old lady likes to think she's keeping up with things and besides it might like hurry the music check, which hasn't arrived yet. After all, man, one can only live by bread alone. P. R.

CAROLYN HESTER: The Carolyn Hester Coalition
The Carolyn Hester Coalition (vocals and instrumentalis). Magic Man; East Virginia; Tomorrow When I Wake Up; Be Your Baby; Big City Streets; Half the World; and five others. Metromedia MD 1001 $4.98, 8 990101 $6.95.
Performance: AIMS at folk rock and misses
Recording: Good
Stereo Quality: Very good

Spurred on, perhaps, by the recent success of Judy Collins, folk singer Carolyn Hester has moved into the rock orbit with a new group called the Carolyn Hester Coalition. Unfortunately, she has little feeling for the driving electric rhythms of rock. Miss Hester picks her way through her accompaniments in a fashion that still sounds uncomfortably like a folk singer who doesn't have to worry about co-ordinating her rhythms with anyone but herself. In addition— and I trust it's because of the engineering—her voice has a peculiarly unattractive edge to it that I have not noticed before, giving it a quality that unfairly misrepresents her usual warm sound. Predictably, her better moments are with folk material, her arrangement of East Virginia and the unusually harmonized adaptations of song, Last Night I Had the Strangest Dream. But there is little more to commend Miss Hester's version of Dino Valente's Let's Get Together, a song that is almost guaranteed to start things moving, has a "down," flaccid quality. Too bad—Carolyn Hester's singing has provided me with some extremely pleasant moments, but that was well before the Coalition.

IT'S A BEAUTIFUL DAY: It's a Beautiful Day (vocals and instrumentalis). White Bird; Hot Summer Days; Bulldog; Bombay Calling; Time to; and two others. Columbia CS 9768 $4.98.
Performance: If you like mild weather
Recording: Good
Stereo Quality: Good

This is a new group that doesn't generate much excitement, but has a very pleasant sound and a modest sort of appeal. They write all their own material, and it varies from tepid (Bombay Calling) to ingratiating (Bulldog) to quite good (White Bird). Bruce Steinberg provides sonic really, interesting harmonica work on Hot Summer Day, but unfortunately the song is not much. The trouble with this group is that, though its members have listened a lot and learned a lot, and are better than adequate performers and composers, they seem to be afraid of letting themselves catch fire and go with it. Perhaps their second album will find them in a more expansive and self-confident mood.
THE LAST RITUAL. The Last Ritual (vocals and instrumentals); Allan Springfield, composer, arr., and cond. Tall About Time: We're Trying; Amusing Judgment: Heritage; and three others. CAPITOL SKAO 206 $4.98.

Performance: Good charts, only fair tunes
Recording: Very good
Stereo Quality: Very good

Many young rock musicians, faced with the broad expanse of a long-playing recording, are unable to resist the temptation to drag us on a tedious trip through their psyches. (The first-novel syndrome is not limited to the literary world.) Allan Springfield has composed, conducted, arranged, and sung all the pieces included here, but the really skillful hand is that of Kenneth Lehman, who provides the "wail ensemble arrangements." (The "arrangements" distinction is one that appears more and more frequently on rock recordings lately. Apparently it's not enough of a boost to a young rock composer's ego to write and play all the basic songs for a recording. They also want to receive credit for their minimal, and largely unskilled, assigning of parts in the basic rhythm group. The arrangers who make the whole thing work with their generally sympathetic scoring for the ensemble accompaniment settings are relegated to a small-print credit. "Tsk. Tsk.") Springfield dredges up a few moderately attractive melodies, but his lyrics are self-conscious and puerile. I'm afraid the competition will be too tough to leave much of an opening for the Last Ritual.

D. H.

KETTY LESTER (see Best of the Month, page 93)

LOTUS LANTERN. Chinese classical orchestra, Lui Pui-Yuen pipa and cond. Dance of Happy Flower; Lotus Lantern; Bow Dance; Prelude to Dance and Song; Horseback Riding in a Spring Field; The Dance of Happiness; Han Palace by Autumn Moonlight; Playing in the Garden; Without a Song; The Cowherd and the Country Girl. LYRICHORD 1191 7202 S$5.98.

Performance: Delicate and delectable
Recording: Good
Stereo Quality: Good

If anybody had told this baby that he'd be sticking around straight-faced for both sides of a record called "Lotus Lantern," the spirit of Anna May Wong would have been summoned promptly to show the liar to the door. And after five minutes of the Dance of Happy Flower, which is supposed to portray "the lightheartedness and swift movement of . . . . a coolie as he goes about his chores," I was indeed not sure that it was safe to let this thing go any further. But I did, and I am duty-bound to report that Mr. Lui Pui-Yuen, his pipa (a four-stringed guitar), and his Chinese Classical Orchestra acquitted themselves nobly over the long haul. The pieces sport such titles as The Dance of Happiness and Han Palace by Moonlight, but the music constantly grows more intriguing and captivating—particularly when it is based on ancient folk tunes. The'st Without a Song and Horseback Riding in a Spring Field, the latter a bit of Cantonese impressionism scored in a manner strangely reminiscent of the Western idiom of Aaron Copland, of all people. If you like the sample, Lyrichord has nine other albums of...
Chinese music waiting for you, including one with the title "Shantung: Music of Confucius' Homeland."

P. R. Kinzer

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**RECORDING OF SPECIAL MERIT**

**JONI MITCHELL: Clouds.** Joni Mitchell (voice and guitar). Time: Angel; Chelsea Morning; I Don't Know Where I Stand; That Song about the Midway; Rose's Blues; and five others. CAPITOL 6547 $4.98, @ M 6341 $6.95, @ X 6341 $5.95.

**Performance:** Superb songs by a major artist
**Stereo Quality:** Good

In little more than a year, Joni Mitchell has come from virtual obscurity to a position of considerable prominence as a young songwriter-performer. Her first recording sold slowly at first, then took off in the wake of Judy Collins' version of Both Sides, Now. The establishment of Miss Mitchell's reputation as a bona fide talent followed quickly.

I prefer Miss Mitchell's very own versions of her tunes to any other. It is always more interesting, of course, to hear composers do their own material, but in addition, Miss Mitchell's voice seems to me superior in quality, flexibility, range and style to those of the many performers who have recorded her songs. Quite simply, she is a superb performer herself.

Both Sides, Now becomes virtually a new song when Miss Mitchell does it, despite its familiarity in other versions. Chelsea Morning, already recorded by Miss Collins, is one of the finest songs of recent memory, and will, I am firmly convinced, soon be a standard.

**NANA MOUSKOURI: Nana Moussouki Sing Over & Over.** Nana Mouskouri (vocals); the Athenians (instruments). Scarbororough Fair/GoTell; The Last Thing on My Mind; The Lily of the West; Why to Remember; Song for a Winter Night; Ereena; and six others. FONTANA SRF 67594 $4.98.

**Performance:** On a clear, cold day...
**Stereo Quality:** Fine

Beware of Greeks with vocal clarity and perfect diction; you may get to like hearing the words sung in full, clear-toned voices. Then, what would you do when Dusty Springfield comes wistfully slurring around at your door? I would invite her in to listen to Nana, then I'd invite Nana to listen to Dusty's heart and soul. I don't know why I thought of Dusty in this context, but it misses the intimacy that she communicates so freely, for it is intimacy that Miss Mouskouri lacks. She has everything else coolly performed, that like other coldly perfect Greek, the Nike of Samothrace. It doesn't help Miss Mouskouri that she is backed by a string ensemble reminiscent of romantic tourist excursions through the Greek islands. Nana Mouskouri's heart may be on her sleeve, but it is not in her voice, I'm sorry to say—or at least not in this program.

R. R.

**RECORDING OF SPECIAL MERIT**

**NRBQ: NRBQ: NRBQ (vocals and instruments).** Crona Everybody; Rocket Number 9; Kentucky Slop Song; Ida; Crona if You're Comin'; You Can't Hide; and seven others. COLUMBIA CS 9858 $4.98.

**Performance:** Provocative new rock group
**Stereo Quality:** Very good

There's been a lot of talk in rock circles lately about going back to basic sources. It's reminiscent, in a way, of the poignantly pleasurable recrudescence that recur every now and then for a return of the big bands. Already, a number of rock groups have arrived this year whose stock in trade is a re-creation of the music of the Coasters, the Drifters, et al. (shades of the late 1950s). NRBQ arrives on a wave of publicity that would have us believe they are a throwback to the Fifties. Maybe so. As if to prove it, they play several pieces that really do recapture the sound of those passive Eisenhower years. Maybe a bit too much, consider their version of a Sun Rock piece called Rocket Number 9, the lovely, jazz-oriented melody (with lyrics by one of the NRBQ by Carl Bley called Ida (and once known as Ida Lupino), and several pieces by keyboard player Terry Adams that are deeply tinged with the spirit of The Thelonious Monk. A remarkably diverse collection of influences for a rock group—yet NRBQ handles it well. In the plethora of rock releases every month, this one group should not pass by unnoticed.

D. H.

**BUCK OWENS' BUCKAROOS: Anywhere, U.S.A.** Buck Owens' Buckaroos (vocals and instruments). Anywhere, U.S.A.; Tim-Buck-Two; Gathering Dust; Greenleaves; Aw Heck; Highland Fling; and six others. CAPITOL ST 194 $4.98, @ 4CL 194 $5.98.

**Performance:** Jovial
**Stereo Quality:** Good

Buck Owens' Buckaroos are touted as America's number one country band, which they may or may not be, and they make for amiable enough listening. They speed through this collection with the aplomb of a high-ground Lawrence Welk, and one number is performed by the Buckaroos' number one country band, with the energy of one of the Coasters, the Drifters, et al. (shades of the late 1950s). NRBQ arrives on a wave of publicity that would have us believe they are a throwback to the Fifties. Maybe so. As if to prove it, they play several pieces that really do recapture the sound of those passive Eisenhower years. Maybe a bit too much, consider their version of a Sun Rock piece called Rocket Number 9, the lovely, jazz-oriented melody (with lyrics by one of the NRBQ by Carl Bley called Ida (and once known as Ida Lupino), and several pieces by keyboard player Terry Adams that are deeply tinged with the spirit of The Thelonious Monk. A remarkably diverse collection of influences for a rock group—yet NRBQ handles it well. In the plethora of rock releases every month, this one group should not pass by unnoticed.

D. H.
This record is the result of two years of intensive research in the sound libraries of Deutsche Grammophon Gesellschaft, Connoisseur Society, Westminster Recording Company and Cambridge Records. The Editors of Stereo Review have selected and edited those excerpts that best demonstrate each of the many aspects of the stereo reproduction of music. The record offers you a greater variety of sound than has ever before been included on a single disc. It is a series of independent demonstrations, each designed to show off one or more aspects of musical sound and its reproduction. Entirely music, the Record has been edited to provide self-sufficient variety of sound than has ever before been included on a single disc.

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RECORDING OF SPECIAL MERIT
PETE R, PAUL AND MARY: Peter, Paul and Mary. Peter, Paul and Mary (vocals and instrumental s); The Marvelous Toy; Day Is Done; Leathering Bat; Going to the Zoo; Box Constrictor; Mockingbird; and six others. WARNER BROTHERS 1785 $4.98, ® M 1785 $6.95.
Performance: Much charm
Recording: Excellent
Stereo Quality: Excellent
This is a collection of songs for children that is performed with skill, taste, and charm. The songs themselves have been chosen with an appreciation of the fact that to be a child is not necessarily to be simple-minded. (I remember some of the gems foisted upon me in childhood, such as a version of 'Songs of Safety', which presumed that a child's life was always in imminent peril if he did anything but sit quietly at home, Sample of 'The Ice Skating Song'. "Ice skating is nice skating! But never skate where the ice is thin! It might break and you'll fall right in."). The songs offered here, such as Going to the Zoo, The Marvelous Toy, and Leathering Bat, are all lightly touched with humor and, often, a wry sort of fantasy to which children immediately respond. Peter, Paul and Mary do their customary excellently job with a total lack of the condescension or phony pedagogical quaintness that so often disfigures the performances of adults singing to children. An excellent album, and basic repertoire for anyone between the ages of six and twelve. P. R.

RECORDING OF SPECIAL MERIT
PETE R SCHICKELE: Good-Time Ticket. Peter Schickele and his orchestra. The Mighty Quiain; Good-Time Ticket; I'll Be Back; Rain; Just Watching $14; Take Me With You; and six others. VANGUARD VSD 6517 $4.98, 6517 (3/4) 5.95, 6517 8V $5.95.
Performance: Excellent
Recording: Excellent
Stereo Quality: Excellent
Just when I thought I had about trounced mood music to death in these columns, along comes Peter Schickele with this fine album and a statement on the back of it that seems to me not only a perfect definition of what he is trying to do here but a very wise observation. "People think music should complement, not intrude. They listen to what is generally described as 'mood music.' Other people dislike the very idea of it; they prefer music that demands—music that grabs you and won't leave you alone. My own feeling is some sort of combination of those two. The trouble with most mood music is that it sounds as if it is written by people who never have any moods."

Amen. Mr. Schickele—in particular I share the view in that last sentence. Further good news is that Schickele has done what he set out to do: this album is both involving and, wonder of wonders, "easy listening." The secret is, of course, in the arrangements. They are superb. How he is able to get an absolutely contemporary yet still lush sound out of such material as Dylan's 'The Mighty Quiain or the Lennon-McCartney 'I'll Be Back' is a mystery to me.

The main elements seem to be an ability to arrange for instruments so that they maintain their identities but never dominate the musical whole—that is the hallmark of all recording techniques. Schickele has recorded a lot of his own music here, including 'I Can't Share Love and Slow Train—Long Hard, and it is all very good, I would be eager to know if Mr. Schickele has ever considered doing a Broadway show. The theater could use someone like him. In the meantime I will do something I never thought I would do: I recommend that you buy this "mood music" album for some 'easy listening.'

RECORDING OF SPECIAL MERIT
SLY & THE FAMILY STONE: Stand! Sly & the Family Stone (vocals and instruments); Stand! Don't Call Me Nigger, Whitey; I Want to Take You Higher; Somebody's Watching You; Sing a Simple Song; and three others. EPIC BN 26456 $4.98,® HN-666 (3/4) $5.95,® N14 10186 $5.95,® N18 10186 $6.95.
Performance: The swinging Family at work
Recording: Very good
Stereo Quality: Very good
Sly Stone and his remarkable Family keep pouring out good music. Writing under the sobriquet of Sylvester Stewart (where he has), he has produced words and music for the entire album. Remarkably, it's all good. Most of it gleams (even if fitfully) with originality, a rare commodity in today's glutted market, and it is performed with the joyous elan that has characterized virtually every note I've heard from Sly and the Family. This album is a good one, and—beholden all you old twisters—you can dance to it.

RECORDING OF SPECIAL MERIT
ULTIMATE SPINACH: Ultimate Spinach (vocals and instruments); Romeo and Juliet; Someday You Just Can't Win; Daisy; Sincere; Eddie's

Stereo Review
DOTTIE WEST AND DON GIBSON: Dottie and Don. Dottie West and Don Gibson (vocals); instrumental accompaniment. Til I Can Rock It Anyway; Ring of Golden Heart; the World Treating You; Final Examination; I Love You Because; Sweet Dreams; and six others. RCA LSP 4131 $4.95,® 3PS 1-135 $5.95.

Performance: Faceless
Recording: Very good
Stereo Quality: Very good

Ultimate Spinach was one of the subjects of last year’s high-powered promotion for the “Boston Sound,” an attempt to develop some Boston rock groups that might achieve the musical and commercial popularity of the San Francisco groups. Obviously, it didn’t work. Although Ultimate Spinach was one of the best of a not particularly attractive lot, they revealed more potential than achievement. Alas, little more comes through on their second disc. Competent, well-produced, and occasionally interesting, yes, but the group has little to distinguish it from the stream of faceless rock ensembles that are passing through the revolving doors of today’s record industry. D. H.

RECORDING OF SPECIAL MERIT


Performance: The first “rock opera”
Recording: Very good
Stereo Quality: Very good

I don’t know why it is that the creative artists who work in the area of popular music have always been so obsessed with the idea of composing operas—jazz operas, ragtime operas, swing operas, blues operas, and the like. I suppose the very word “opera” suggests an aura of respectability and major creative accomplishment that is terribly tempting to those who work in an idiom generally viewed as popular and transitory.

Of course, opera has had so many definitions in its 350 or so years of existence that it can be just about anything that anyone wants it to be. So, if Peter Townshend of The Who decide to call this collection of well-conceived, well-performed, and well-written rock songs, improvisations, and bits and fragments of melody an opera, then why not? It may not be as formally acceptable as Kienek’s Jonah: spell unt or as tuneful as Gershwin’s Porgy and Bess, but it is closer to its sources than either.

The Who have been best known in the past for breaking up instruments and amplifiers ( Destruction Rock?), even though Townshend has a fine reputation as a rock guitarist, and drummer Keith Moon is one of the more respected English percussionists. But this is the first time the group has put everything together, eliminated the more transparent humor, and often is stretched to lengths that its musical substance cannot support. In any case, “Tommy” is a major attempt to expand the limits of the rock-music experience. It may or may not be an opera, but much of it is good music. For me, that’s enough. D. H.

JAZZ

JOHN BISHOP: Bishop’s Whirl. John Bishop (guitar); Newell Burton, Jr. (organ); Bobby Hamilton (drums); Larry Bryant (conga); Jerry Scheff (bass). Fred die the Freeloader; Satin Doll; Wide in the

Sounds good to me.

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Recently, manufacturers have tried to reproduce sound which they believe is comfortable to the human ear — thus, the advent of unreal booming bass and strident highs. And, a great many people like it that way because they think it’s high fidelity (in a way it is), but it usually isn’t NATURAL sound the way it was originally produced.

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For one track of this new release, the Don Ellis Orchestra finally reveals on recordings the remarkable quality of its "live" performances. Titled Indian Lady, it was recorded on an earlier Columbia disc, but producer Al Kooper and Ellis wisely decided to add it here because it so accurately represents the orchestra's extraordinary abilities. The remaining pieces include a hilarious country-and- western parody called Scott and Flagger, a 7/8 soul-styled tune called Party Wiggle Stomp; an arrangement of Charlie Parker's classic solo on K. C. Blues, a showcase for trumpeter Glenn Stuart, and a top-heavy extended work by Ellis titled Free-Range for Trumpet. All are at Ellis' usual high level of invention, but they pale beside Indian Lady, a piece that touches all bases in its performance: down-home traditional jazz, free (and almost chaotic) improvisation, astonishing percussion solos, tape-loop and tone-distortion improvisation from Ellis, and virtually everything else, all performed with a sense of theater that is too often lacking in modern jazz. For that one track in particular, but also because Don Ellis continues to be one of the decade's most important musicians, this is a necessary item for a jazz collection.

D. H.

FREDDIE HUBBARD: A Soul Experiment. Freddie Hubbard (trumpet); various musicians. Clap Your Hands; Wichita Lineman; South Street; Lonely Soul; No Time to Love; and five others. ATLANTIC SD 1526 $4.98.

Performance: Jazz/pop/soul Recording: Very good Stereo Quality: Very good

Freddie Hubbard, one of the most technically adept jazz trumpeters of the last two decades, tops on the pop/rick wagon for this outing. A player whose roots are deeply imbedded in the blues (and in the soul jazz of the late Fifties and early Sixties), Hubbard brings off the commingling of styles with more success than many jazz men have had. He is aided in no small measure by arranger Gil Fuller's crisp ensemble sketches and solid support from a driving rhythm section. Ultimately, a sameness of style affects the pieces; toward the middle of the second side, it becomes hard to avoid the feeling that we've heard it all before, but carping aside, Hubbard is a fine player who deserves to be heard by a wider audience; sessions of this sort may help to find it.

D. H.

THELONIOUS MONK: Monk's Blues. Thelonious Monk (piano); band, Oliver Nelson arr, and con. Let's Cook One; Reflection; Rootie Tootie; Just a Glance at

Stereo Quality: Good Recording, Okay Performance, Calm

The combining of Thelonious Monk's tunes and piano playing with Oliver Nelson's arrangements should have produced superb results. Why it did not is, I'm afraid, easy to see. Nelson's massive overwriting is the culprit. Monk's tunes are like precisely balanced musical mobiles; one note out of place, one thick chord here or an excessive counter-rhythm there, throws things hopelessly out of kilter. Perhaps that's why Monk himself never tried to do this sort of thing. But carping aside, it seems so disoriented and out of touch with the proceedings. (Since Hal Oliver has already demonstrated his clear understanding of Monk's music by his arrangements for past recordings, it's hard to see why he wasn't used again. I suppose Nelson's growing prominence as a film and television composer played a role in his selection.) Whatever the cause, we are left with yet another disappointing outing from one of the unquestioned jazz masters. It's a shame.

D. H.
In the rush of creative change taking place in jazz in the late Fifties and early Sixties, no avant-garde musician's credentials were any better than those of the fine composer-pianist-theoretician George Russell. He had already evolved a theoretical approach to jazz improvisation and composition (called the "Lydian Concept") which codified the jazz man's traditional practice of superimposing new scale- and mode-based melodies above the traditional chord changes of existing tunes. One of his finest ensembles trumpeter Don Ellis, woodwind player Eric Dolphy, and trombonist (now cellist) Dave Baker. Riverside has prepared a reissue collection from several Russell discs which includes three selections by that group (with Steve Swallow on bass and Joe Hunt on drums), two from a group that replaced Dolphy with alto saxophonist John Pierce and tenor saxophonist Paul Plummer, and a single track from a group that included Ellis, Plummer, and trombonist Garnett Brown (with Pete La Roca replacing Hunt).

The units are all excellent, but the Ellis-Dolphy ensemble is, of course, of particular interest. Both players are at the top of their form—so strong that they reach even beyond the limits of Russell's music. Occasionally this produces a musical situation more reflective of their viewpoints than Russell's, but that's not necessarily bad. The playing is so excellent, the compositions so provocative, the ensembles so refreshing (even some five or six years later) that this is an indispensable item.

D. H.

PHAROAH SANDERS: Karma. Pharoah Sanders (tenor sax); with various musicians. The Creator Has a Master Plan; Light of Love; Colors. ImmrLsE! A 9181 $5.98.

Performance: Trance music
Recording: Very good
Stereo Quality: Very good

Pharoah Sanders, John Coltrane's musical compatriot for the last few years before Coltrane's death, has continued to develop the quasi-mystical musical expression that dominated Coltrane's thoughts. Three compositions are included here, all constructed of the trance-provoking elements—continuous, freely rhythmic percussion, long declamatory melodic lines, contrasting vocalizations (from voice and horns), dense ensemble textures—that were characteristic of Coltrane's music.

It is probably reasonable to suggest that Sanders' association with Coltrane represented an interchange of ideas, Coltrane's music as much influenced by Sanders' as vice versa. Like all highly spiritual, hypnotically evocative experiences, "Karma" must be given a proper opportunity to make its effect—an opportunity to happen. And that will mean allowing the waves of sound to wash over you. Try it.

D. H.

NINA SIMONE: To Love Somebody (see Best of the Month, page 94)
(Continued on page 136)
SPOKEN WORD

RECORDING OF SPECIAL MERIT


Recording: Notable
Stereo Quality: Notable
Performance: Impeccable

Once in a while something quite extraordinary happens in the theater. It may be the emergence of a new playwright, or it may be the emergence of a new idea. With the first night of Mart Crowley's The Boys in the Band on April 14, 1968, it was a mixture of the two. The unknown Mr. Crowley sprang to life as a fully fledged, marvelously accomplished American dramatist. But much more, this was also the first work of real distinction that freely utilized what has become known as the new permissiveness in the American theater.

It was Oscar Wilde who termed homosexuality “the love that cannot say its name,” and in The Boys in the Band it is not only named, it is screamed from the rooftops. Yet the great quality of the play is not to be found in its homosexual milieu, but rather the play acquires its distinction from the stiletto brilliance and wit of Mr. Crowley's writing, and the subtle interplay of his characters.

The play is set at a homosexual party. The atmosphere is bitchy—the kind of party games that are played make Edward Albee's Virginia Woolf seem like a nursery school. At times Mr. Crowley's tone is a little too hysterical: “Show me a happy homosexual and I will show you a gay corpse.” But if the situation is as bad as that, some of my friends must be putting on a pretty good act.

The acting of the ensemble—and I really do mean ensemble—was perfect, as was the brilliantly intermeshing direction of Robert Moore. All the actors gave the air of having acted together, as a group, for years. This is the most potent tribute that can be offered their performance, and it is this quality that Gil Gerard, the producer, captured in this excellent album. — G.B.

RECORDING OF SPECIAL MERIT


Recording: Adequate
Performance: Quite authentic

Most authors should be read and not heard. Far too many of them sound uncomfortable and unfamiliar with their own work when they read them aloud, and their voices are usually disturbingly inappropriate to what they have to say. Nabokov seems too academic for Lolita, Capote too prissy for In Cold Blood, and Hemingway too high-pitched and whiny for his swaggering, hairy-chested subject matter. A dazzling exception is James Jones, whose unerring ear for barracks conversation is matched by a voice and accent that render his words with an absolute rightness.

On this disc he reads two well-chosen scenes: the description of Prewitt's blowing Taps on Andy's bugle from his first novel From Here to Eternity and "Lt. Whyte's nineteenth-century charge" from The Thin Red Line. There is brutal realism in his descriptions of drab army life and of common soldiers, who smell like common soldiers, facing death, but it is tempered by the author's compassion and, at times, by manly tenderness.

The real distinction of this record lies not in the writing but in the reading, in the perfect match of performer and material. Jones' voice is deep and rough, with a very individual timbre, and his rural accent and intonation patterns are straight from the heart of America, in this case Southern Illinois. He sounds properly ill-at-ease with an "ng" at the end of a word, and he idiomatically gives an incorrect extra stress to unaccented prepositions and pronouns. He is excellent in the dialogue and quite convincing throughout.

When I meet old friends from my army days, we talk only of the funny things that happened to us back then. This record revives strong memories of other aspects of military service and revives them so strongly that I don't think any man who has been through so much as Basic Training would be unaffected by listening to it. It is one of the best spoken-word records I have ever heard.

William Livingstone

RECORDING OF SPECIAL MERIT


Performance: Excellent

FAR TOO MANY OF THEM SOUND UNCOMFORTABLE AND UNFAMILIAR WITH THEIR OWN WORK WHEN THEY READ THEM ALOUD, AND THEIR VOICES ARE USUALLY DISONORTINGLY INAPPROPRIATE TO WHAT THEY HAVE TO SAY.
and allowed to soar.

**Recording: Excellent.**

One had, contrary to all that you may have heard, there are still some places on this earth where the creative intellect is respected, and one of these is England. Take radio, for instance. Once we had the Columbia Workshop (circa 1935), and we still have its effects when they aren't being Pugnacious, or the BBC. There, too, are plenty of wasteland stretches, but there also are programs in which fine acting, arresting documentary techniques, and production values combine to make a challenge and excitement. Take the London Critics Group. A few years ago they reset Romeo and Juliet in terms of contemporary London. Today, they have also prepared group radio productions in the form of "radio ballads" (one narrative into the changing roles that have occurred in British stores and shopping habits). And here is the present disc, a major effort about the miners, the miners, they then put together a show called "The Big Hearer" in 1961 by going to the mines in Durham, Northumberland, Glamorgan, and Nottinghamshire and recording the tales of some ninety miners. Back in London, with the aid of a group of excellent actors, singers and musicians, they then put together a show that is powerful, swift-moving, and unforgettable. We're taken down to the world that has never seen sun or moon or stars," to "the silence in the pit" where "you can feel the darkness pressing on you" down with the miners in the company of songs and sound-effects and legends, to smell the dank earth where the creative intellect is respected.

The history of coal-mining is woven in so many places on this earth that it's impossible to describe the changes that have improved conditions unforeseen, but it didn't turn out that way. In his autobiography, Charles Mackay in Stereo Review, "the illusion of an orchestra spread across the wall is uncanny...To hear a thunderous low C organ pedal...or a deep weighty impact of a large bass drum is truly impressive...There is no doubt that the much-abused term, 'breakthrough,' applies to the Bose 901 and its bold new concepts." Bert Whyte in Audio.

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An incredible $379.95!
Which makes the ROBERTS 650XD the lowest priced state-of-the-art stereo recorder on the market!
STEREO TAPE

RECORDING OF SPECIAL MERIT

BACH: Toccatas and Fugues; in D Minor (BWV 565), D Minor ("Doric," BWV 538), and F Major (BWV 540); Toccata, Adagio, and Fugue in C Major (BWV 564). Helmut Walcha (organ of St. Laurenskerk in Alkmaar, Holland). DEUTSCHE GRAMMOPHON ARCHIVE ® ARC 8504 $7.95.

Performance: Powerful
Recording: Superior
Stereo Quality: Excellent
Speed and Playing Time: 7½ ips; 52'47"

These are grandioso renderings, powerful in impact and rhythmically solid as a rock, and they are among Helmut Walcha's finest achievements. The excellent Dutch organ sounds even better in tape form than it does on the circa early Sixties disc issue, and, except for slight flutter at the end of the sequence in my copy, the tape processing is faultless.

I. K.

BARTOK: Music for Strings, Percussion, and Celesta (see STRAVINSKY)


Performance: Perhaps too exciting
Recording: Excellent
Stereo Quality: Excellent
Speed and Playing Time: 7½ ips; 42'55"

Bernstein's account of this imperishable symphony leaves me with mixed feelings. His Largo is beautifully laid out, and his final Allegro con fuoco wraps up everything with a bold and triumphant sweep. However, both the Allegro molto portion of the first movement and the entire Scherzo are much too restless for my taste. The relaxed gaiety of the Scherzo, in particular, seems to elude Bernstein; the gracefulness of the folk-inspired melodies is sacrificed to his restless treatment. It is perhaps pertinent to note that the spirit of the Scherzo was properly captured not only by the native Czechs (Kubelik and Senn) but by Walter and Tussaunini (.) as well. Technically, the recording is really outstanding.

G. J.

RECORDING OF SPECIAL MERIT

MOZART: Le Nozze di Figaro. Dietrich Fischer-Dieskau (baritone), Count; Gundula Janowitz (soprano), Countess; Edith Mathis (soprano), Susanna; Heribert Prey (baritone), Figaro; Tatiana Troyanos (mezzo-soprano), Cherubino; other soloists; Choir and Orchestra of the Deutsche Oper, Berlin, BBC Symphony Orchestra, Pierre Boulez cond. COLUMBIA ® MQ 1063 $7.95.

Performance: Unique
Recording: High class
Stereo Quality: Just about perfect
Speed and Playing Time: 3½ ips; 52'03"

I suppose there are in fact only two justifications for the present program selections, in view of the frequency and splendor with which each has been frequently recorded: one is that Boulez has chosen to record the 1910 version of the Firebird Suite rather than the more recent one we all know; and the other is the simple fact that Boulez, even in contemporary warhorses like these, promises and provides fresh insights into them.

I expect there is a certain documentary interest in making the earlier Firebird Suite available, but, in spite of its amplified representation of the music from the original ballet score, it's not hard to see why Stravinsky tried more structured recent versions. This early one is, taken by itself, less than cohesive in shape, more than a little flabby; and, what is worse, it doesn't end with the precisely right Berceuse and Finale that is either an inevitable ending to Stravinsky's abridgement of the score or, possibly, merely seems so because we are ear-washed to the terror of the music in all but blindingly illuminated (and illuminating) detail. If everyone shouldn't own this performance by some sort of de facto law, they should be at least obliged to give it an attentive hearing.

But Boulez does exactly what one might expect: he cleanses, penetrates, and lets us hear the structural basis for the formation of even the most densely homophonic passages; he paces the piece briskly, and plays it with his own unsentimental expressivity. Right or wrong, for better or for worse, we hear the music as it is, not blindingly illuminated (and illuminating) detail. If everyone shouldn't own this performance by some sort of decree, they should be at least obliged to give it an attentive hearing.

I like Boulez's way with the Bartok staple, too, by articulating the more barren, dissonant intervals, he gives back to the work its status as a vibrantly original modern masterpiece. He furthermore enhances the image of the composer-as-intellectual by exploring and clarifying the interwoven relationships and essentially contrapuntal fabric of the musical texture. I've never been able to believe that this essentially impressive work is not lessened by the coloristic, amorphous background-music-like carryings-on of the third movement, and I don't feel that its horror-movie evocation is either to Boulez's taste or, more probably, in line with his interpretive aesthetic. And the structurally somewhat fragmented and disconnected continuity of Bartok's folk-rhythmed finale is perhaps a little too popularistic and, for its day,G. J.

SEPTEMBER 1969

Reviewed by WILLIAM FLANAGAN  DON HECKMAN  GEORGE JELLINEK  IGOR KIPNIS  PAUL KRESH  PETEK REILLY  ERIC SALZMAN

Explanation of symbols:

* = reel-to-reel tape
2 = four-track cartridge
5 = eight-track cartridge
© = cassette

Monophonic recordings are indicated by the symbol *. All others are stereo.

STEREO TAPE

RECORDING OF SPECIAL MERIT

WAGNER: Das Rheingold. Dietrich Fischer-Dieskau (baritone), Wotan; Robert Kerns (baritone), Donner; Donald Grobe (tenor), Frick; Gerhard Stolze (tenor), Jetze; John T. Kelemen (baritone), Alberich; Erwin Wohlfahrt (tenor), Mime; Martti Talvela (bass), Fasolt; Karl Ridderbusch (bass), Fafner; Josephine Veasey (mezzo-soprano), Fricka; Simone Mangelbrodt (soprano), Freia; Ora-Liza Dominguez (contralto), Enfa; Helen Donath (soprano), Woglinde; Ekko Moser (soprano), Wellgunde; Anna Reynolds (mezzo-soprano), Flosshilde. Berlin Philharmonic Orchestra, Herbert von Karajan cond. DEUTSCHE Grammophon ® 9228 two reels $19.95.

Performance: Lyrical? Recording: Good
Stereo Quality: High
Speed and Playing Time: 71/2 ips; 144'57''

A lyrical Rheingold? That's what we're assured this is, although frankly I find it hard to feel the lyricism in an opening which sounds like a jog-trot through the Prater rather than a Wagnerian run over Valhalla's hill and dale. Donner's thunderstorm is a light spring sprinkle. Fasolt emerges as the hero because he is sung by the magnificent (and quite lyrical) Martti Talvela. Otherwise, the singing doesn't strike me as particularly lyrical. Nevertheless, its level is quite generally high (much higher than one usually gets for Wagner these days), and the orchestra is magnificent. In his attention to orchestral sound and detail, however, Karajan, in my view, misses the longer sweep of the piece altogether, and, without that longer sweep, dramatic tension, big form, and lyricism are bound to suffer. If you don't mind a certain level of tape hiss, and are not put off by badly planned reel changes, you might consider the tape version over the discs. Libetto provided.

E. S.

MARTTI TALVELA
Magnificent as Fasolt in Rheingold

whose voice lacks the Lenya catch but makes up for it in force and fullness, and the chorus and orchestra, if less abrasively sarcastic in style than those of the older recording, sing and play so magnificently and so brilliantly that the latter sounds just a bit pallid by comparison. In both the text is sung in the original German, but with this tape a text, including a rather shaky but helpful English version, is thoughtfully supplied.

P. K.

ENTERTAINMENT

JESSE FULLER: San Francisco Bay Blues.
Jesse Fuller (one man band; frotella; kazoo; harmonica; sectional). John Henry; San Francisco Bay Blues; Midnight Gold; Whoa Male; Little Black Train; I Got a Mind to Ramble; and six others. GOOD TIME JAZZ. 00X 1051 $6.98, © GTM 81051 $5.98. Performance: Centipede's delight
Recording: Presumably accurate
Speed and Playing Time: 31/2 ips; 30'22''

I never saw a one-man band, I don't expect to see one. But I can tell you anyhow, I'd rather see than hear one. P. R.

BUDDY GUY: This Is Buddy Guy! Buddy Guy (vocals and guitar); tight-piece accompanying band. I Got My Eye on You; The Things I Used to Do; Fever; Knock on Wood; and four others. VANGUARD ® VGX 9290 $5.95, © 79290 $8.95, © 89290 $6.95, © 9290 $3.95. Performance: Surprisingly bland
Recording: Good
Stereo Quality: Good
Speed and Playing Time: 31/2 ips; 36'46''

By anyone's standard of excellence, Buddy Guy is the finest blues singer-guitarist to come down the pike since B. B. King. Yet he has rarely recorded in particularly effective fashion under his own name. Although earlier dates with Junior Wells produced marvelous interchanges between Guy's guitar and Wells' wailing blues harmonica, little of that excellence has spilled over into this recent release. Recorded "live" in Berkeley, California, this music goes through all the proper motions but lacks the gutsy, electric power that Guy can generate in his best moments.

Don H.

TED HEATH: Swing Is King, Volume Two. Ted Heath and His Orchestra, Jimmy at the Woodside; Oh Lady Be Good; Don't Get Around Much Anymore; Jersey Bounce; Harlem Nocturne; Apple Honey; and six others. LONDON ® ELP 74113 $7.95, © 59113 $5.95, © 14113 $6.95, © 84113 $5.95. Performance: Authentic studio recreations
Recording: Excellent
Stereo Quality: Excellent
Speed and Playing Time: 71/2 ips; 30'22''

I suppose there still are some listeners out there for whom Swing Is King. For them, Ted Heath's studio band recreations of twelve standards—out all of them from the Swing Era—may be just their cup of tea. For myself—well, I don't really remember Ann Miller well enough to have any fantasies about dancing her around my living room to the strains of Jersey Bounce and Swing of Pearls. But, as they say, anything that turns you on.... Don H.

THE MARVELETTES: Sophisticated Soul. The Marvelettes (vocals); orchestra. Your Love Can Save Me; You're the One; The Stranger; Here I Am Baby; Someway, Somehow; Destination Anywhere; and six others. TAMLA ® TMX 286 $5.95, © 5286 $5.95. Performance: Lively
Recording: Good
Stereo Quality: Good
Speed and Playing Time: 31/2 ips; 33'22''

To try to sing "sophisticated soul" would seem to be a contradiction in terms. As I understand "soul," it is just that—raw and unvarnished—and any attempt to make it more sophisticated would just make it less "soul." Oh, well. The Marvelettes have so named their album, and they attempt to perform a rather standard group of "soul" songs in a manner that might, better than sophisticated, be called middle-of-the-road commercial style. The only place they caught me up at all was in the insinuatingly "sassy Must Be a Magician, which they pull off splendidly. Otherwise the Marvelettes, who are a sort of road-company Supremes, don't offer much of interest here.

P. R.
TAPE HORIZONS

MIXING A MASTER

IT doesn't take much experience with "on-location" stereo recording before one realizes that there are times when it is necessary to use more than a single pair of microphones. Soloists who sound properly balanced against a chorus in the auditorium are rarely highlighted adequately on the tape unless they are supplied with individual mikes, and often four or more microphones are necessary to get adequate coverage of a stage when trying to tape a school play, for example. Even recording a panel discussion is easier when you can use a separate microphone for each participant and control its volume independently of the others.

Unfortunately, unlike table lamps, which can all be plugged into the same wall outlet, microphones cannot simply be connected together through an adaptor. To do so would invite problems with frequency response, distortion, and microphone signal output—and, of course, such a procedure would not provide the needed separate volume control for each mike. Instead, the proper approach with any multiple microphone set-up is to use a device called a "mixer." Such units are available with monophonic and/or stereo outputs, and can provide proper input connections and individual level controls for two to ten microphones or more. In addition, at least one "high level" input is usually provided. This permits (for example) the signal from an FM tuner or another tape recorder to be mixed with a voice commentary or whatever other material is being picked up by the microphone.

Until a few years ago there was a very large gap between strictly professional mixers (selling at prices far beyond the average audiophile's means) and units whose performance was severely limited. The development of low-noise transistor circuitry has reached the point, however, where several manufacturers now offer mixers priced well below the $100 range that are suited to the needs of the serious amateur. Indeed, mixer circuitry may well produce less hiss and have better frequency response than the microphone stages of one's own recorder, and be preferable even when only one microphone per channel is used. Most mixers produce a signal level high enough to be plugged directly into the recorder's "aux" (or "line," "radio," or "high-in") jacks.

If your budget is limited, you might want to try one of the battery-operated mixers sold by most mail-order suppliers for about $10. These units vary in quality, but some are surprisingly good. If you intend to do much live recording, it is a good idea to purchase a unit with at least one more pair of inputs than the number of microphones you now have. Bear in mind also that almost all multiple microphone recordings will require the mikes to be set for "low impedance" operation; a unit which will accept this type of input directly, though more costly to start, will save the cost of as many "matching transformers" (about $10 each) as the number of microphones used. Finally, the ability to switch a given microphone into both channels simultaneously ("A + B") is often highly desirable for centering a soloist acoustically, or for filling a "hole in the middle" created by the need to space the primary pair of microphones widely to obtain adequate coverage.
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STEREO REVIEW PRODUCT INDEX

As an additional reader service, we list below, by classifications, the products advertised in this issue. If there is a specific product you are shopping for, look for its listing and turn to the pages indicated for the advertisements of manufacturers supplying that equipment.

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Words are inherently limited in stimulating the emotions aroused by music. This is especially so in describing how high fidelity components perform.

With cartridges, for example, we speak of flat frequency response, high compliance, low mass, stereo separation. Words like these enlighten the technically minded. But they do little or nothing for those who seek only the sheer pleasure of listening.

We kept both aspects in mind when developing the XV-15 series of cartridges. We made the technical measurements. And we listened. We listened especially for the ability of these cartridges to reproduce the entire range of every instrument. With no loss of power. In the case of woodwinds, this meant a cartridge that could recreate the exact nuances that distinguish an oboe from an English horn. A clarinet from a bass clarinet. A bassoon in its lower register from a contrabassoon in its higher register.

We call this achievement "100% woodwind power."

When you play your records with an XV-15, you won't be concerned with even that simple phrase. Instead, you'll just feel and enjoy the renewed experience of what high fidelity is really all about.

PICKERING

THE NEW PICKERING XV15-750E

PREMIER MODEL OF THE XV 15 SERIES TRACKS AT 1/10 GRAM DYNAMIC COUPLING FACTOR OF 750 FOR USE IN FINEST TONEARMS. $60.00 OTHER XV15 CARTRIDGES FROM $29.95. PICKERING & CO., PLAINVIEW, L.I., N.Y.

CIRCLE NO. 41 ON READER SERVICE CARD
Any similarity between these four Electro-Voice bookshelf speaker systems is strictly scientific!

These four speaker systems share a surface beauty. But don’t be misled. Underneath — where it counts — there are scores of important differences. There have to be.

Because what’s right for a small system may be all wrong for a big one. And what works well in a 2-way system may be poison for a 3-way. (Even a little change, like just 1" more cabinet, can upset the design of every component inside.)

Of course not everybody can afford to design every speaker in their line from scratch, the way Electro-Voice does. But then, not everybody has a scientific computer that pre-tests hundreds of ideas on paper to find the few good enough to build.

And not everybody has a huge anechoic chamber (like the one above) to prove the superiority of each design. Nor the staggering array of test equipment that goes with the chamber. Or — most important — the engineering talent and musical sensitivity to take full advantage of these unique laboratory facilities.

When you select an E-V speaker system — regardless of size or price — you can be certain it truly represents the state of the art... and good value to boot.

Anything less would be a cop-out.

But don’t take our word for it. Listen. Compare. The difference you see and hear is what high fidelity is all about.

ELECTRO-VOICE, INC., Dept. 994F, 616 Cecil Street, Buchanan, Michigan 49107

For name of nearest dealer, call TOLL-FREE: (800) 243-0355 ANY HOUR, ANY DAY.
In Connecticut call collect: 853-3600

CIRCLE NO. 19 ON READER SERVICE CARD