THE NOISE SUPPRESSORS: A BRAVE NEW WORLD FOR MUSIC
J. S. BACH: WHAT TO LISTEN TO AND WHAT TO LISTEN FOR
COMMENTARY: OPENING OF WASHINGTON'S KENNEDY CENTER
The AM tuner section also has ceramic filters and combines wide-band performance with exceptional sensitivity. In addition, the Fisher 40 features truly sophisticated controls to make sure that precisely the right signals are fed through those four separate amplification channels. Front and rear volume are adjustable with separate slide controls resembling studio-console faders. Bass and treble controls are of the greatly superior Baxandall type. There's also a balance control for the front and rear channels, plus many others that fall into the convenience category. But one set of controls requires special mention:

2 + 2 stereo.
This control switches in the matrix decoder of the Fisher 40, which makes possible two kinds of 4-channel playback. Pre-matrixed 4-channel program material (i.e., four original channels encoded into the two walls of a record groove or two magnetic tracks on tape) can be played back with excellent 4-channel separation and localization. Or, hidden ambience information in ordinary 2-channel stereo material can be extracted to produce a quasi-4-channel effect.

All this, of course, is in addition to the discrete 4-channel capability of the Fisher 40, for which it has its own built-in source:

3. The 4-channel tape cartridge player.
This beautiful little tape player will play back any cartridge in the standard 8-track format, 2-channel or 4-channel.

But, of course, its performance is considerably more advanced than what you'd expect from ordinary 8-track players. Flutter is completely inaudible and playback equalization is accurate. The player automatically switches between the 2-channel and 4-channel modes and indicates the mode being used by means of red jewel lights. The program controls also have their associated jewel lights.

As you probably know, discrete 4-channel reproduction is the only kind that retains full channel separation at all frequencies, and the current repertory of 4-channel tape cartridges represents the primary commercial source of this ultimate form of 4-channel sound.

What about speakers?
The Fisher 40 is priced at $499.95, without speakers. Your choice of speakers for it is virtually unlimited, but the sensible thing would be to select four speakers that are good enough to take full advantage of its inherent sound quality, yet not so expensive that the whole concept is negated.

Your rock-bottom choice might be four Fisher XP-44B two-way bookshelf speakers at a total price of $178.00. Or you may go as high as four Fisher WS-80 three-way omnidirectional floor speakers at a total of $399.80. In between, you have many other choices. You may even want to go higher or lower for your own special reasons.

One thing is certain though. The world's first all-in-one 4-channel component is good enough to deserve speakers of Fisher quality. We invented high fidelity.

Fisher
We invented high fidelity.
Now that it’s obvious even to the skeptics that 4-channel sound reproduction is here to stay, the next step is equally obvious:

There’s an immediate need for a high-quality 4-channel system that takes up less space and is less expensive than the more complex equipment that started the trend.

Luckily, Fisher recognized this need many months before it became obvious. That’s why you won’t have to wait for the world’s first all-in-one 4-channel component. It’s here.

Introducing the 4-channel Fisher 40.

The basic idea of the Fisher 40 is simple and logical.

Take an automatic turntable, a 4-channel AM/FM receiver and a 4-channel tape cartridge player. (Together they represent all the available 4-channel program sources and all the necessary electronics.) Put them together on a single chassis, to save space and weight and to avoid redundant inputs, outputs and wiring. Pass the savings on to the end user, but give him his own choice of speakers to suit his listening room and budget.

Good idea, isn’t it? But in the wrong hands it could have resulted in a sleazy “hi-fi compact” of indifferent performance.

Therefore, to make sure that the Fisher 40 would be worthy of its name, Fisher stuck to an inflexible ground rule in its design: The three major components that went into it had to be of separate Fisher component quality, so that any enthusiast would be proud to own each one of them if they were available separately. Entirely new designs were drawn up and new circuits engineered to satisfy this requirement.

Let’s look at the end result:

1. The 4-speed automatic turntable.

There’s nothing specifically “4-channel” about any turntable design, but 4-channel information in the record groove certainly requires precise tracking plus freedom from wow, flutter and rumble if it is to come through accurately. The 4-speed automatic turntable of the Fisher 40 gives you component-quality performance in all those areas. The high-quality magnetic cartridge has a diamond stylus, and both stylus force and anti-skating force are adjustable. There’s a cueing control for setting the stylus down gently on any groove of the record. And the motor shuts off automatically at the end of the last record.

2. The 4-channel AM/FM receiver.

Fisher is particularly proud of this new receiver design, since it’s undoubtedly finer than any medium-powered 4-channel receiver available separately.

Power output is 100 watts, 25 watts per channel, which is enough to drive four main speakers and a pair of remote speakers without the slightest strain.

The FM tuner section features ceramic filters in the IF stage and the rated sensitivity is 2.4 microvolts. Not many separate FM tuners at any price offer significantly superior performance.
Fisher is pleased to announce a unique and important new 4-channel development.
**True Tangent Tracking**

First time in an automatic turntable!

The diagram over the photograph shows how the tone arm articulates, constantly adjusting the angle of the cartridge, and keeping the stylus perpendicularly tangent to the grooves throughout the record. Space-age pivotry and computerized design have made it possible to play the record at exactly the same angle as it was cut. Reproduction is truer, distortion sharply reduced, record life lengthened.

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

Test reports by some of the industry's most respected reviewers have already appeared, expressing their enthusiasm. These reports are now available with a 12-page brochure on the Zero 100 at your dealer. Or, you can write to British Industries Company, Dept. L31, Westbury, New York 11590.

Mfg. by Plessey Ltd. Dist. by British Industries Co.
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I THINK it must be admitted that a language that calls a glove a *Handschoh* leaves something to be desired in the way of richness of verbal invention. On the other hand, one does occasionally find in a foreign language an expression that is a singularly apt embodiment of an idea that will not be found as felicitously put in one's own. One such expression is the German *Schadenfreude*—literally, "harm-joy"—the perverse habit of seeking out and taking gloating pleasure in things that ought to arouse compassionate sympathy. The best we can do in English with this probably universal (though by no means common) human tendency is "crapehanging," which is merely colloquial to start with, and not nearly to the point in the end. But *Schadenfreude* was very much to the point in the festival of critical breast-beating inspired by the completion of Washington's new John F. Kennedy Center for the Performing Arts. Try as I might, I could find scarcely one good word for the building in anyone's dispatches. I would have been pleased to detect even a sigh of disappointment amid the orgy of disparagement we were treated to, but there was nothing but smirking satisfaction over the awfulness of it all—*Schadenfreude*.

There are many reasons for this. One, I think, is our still-powerful, self-consciousness—as architecture critic Ada Louise Huxtable put it in the *New York Times*, "It is an embarrassment to have it stand as a symbol of American artistic achievement before the nation and the world." Though I am far from sure that the Center does so stand, we do from time to time display this tentative and immature "the world is looking" (Huxtable) uneasiness even about our best things—but should we really care? Would the British bother themselves that boorish Patagonians consider their Royal Festival Hall a bad example of the Early Airport style? Would West Berliners be crushed to learn that their concert hall (which they themselves call Karajan's Circus) looks like a crippled dumpling? And much as the rest of the world loves to criticize things American, their distaste appears to vanish as soon as they can afford them for themselves.

Few things these days are without their political side, and this one is no exception. But the critics were frustrated. I believe, by the unhappy fact that the Center is inaccessible to direct political assault: the law creating it was passed in 1958, two parties and four presidents ago. Mrs. Huxtable got around that by introducing a couple of red herrings presumably borrowed from the man on her left. The Kennedy Center, she says, is a "superbunker," and "Albert Speer would have approved." It is difficult to know just what to make of this. "Bunker," of course, is another German word, even a sigh of disappointment amid the orgy of disparagement we were treated to, but...
The new Revox A77 Mk III.

It's still not perfect.

Nothing is.

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

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

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

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

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

Instead, we made only those changes which would meaningfully improve performance and reliability.

Not a radical transformation, but a program of rational development.

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

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

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

All in all, we haven't created a revolution.

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

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

REVOX delivers what all the rest only promise.
Most record reviewers do their listening on a Dual. Perhaps they know something you should know.
Consider the plight of the music critic who reviews recordings for a living. His reputation depends on his ears. And how much they hear. For the differences between performances are often very subtle.

A reviewer must listen for the artist's interpretation, how his talents have progressed and how he compares with his fellow performers. In addition, he must be sensitive to recording and microphone techniques and the quality of the record surface.

All this is why the professional listener selects his high fidelity equipment with great care. Especially the turntable. Because he knows that what he hears (or doesn't hear) often depends on the turntable.

**What can happen to a recording.**

The turntable is the one component that actually handles records, spinning them on a platter and tracking their impressionable grooves with the unyielding hardness of a diamond. And much depends on how well all this is done.

If the record doesn't rotate at precisely the right speed, the musical pitch will be off.

If the motor isn't quiet and free of vibration, an annoying rumble will be added to the artist's performance.

If, in tracking, the stylus doesn't respond easily and accurately to the rapidly changing contours of the record groove, there can be even worse trouble. Instead of tracing the sharp peaks of the high frequencies, the stylus will simply lop them off. And with those little bits of vinyl go all those glorious high notes. Taking their place are a lot of unpleasant sounds that were never recorded.

**What most serious listeners know.**

Serious music lovers know all this, and that none of it need actually happen. It's why so many of them, professional and amateur alike, have long entrusted their precious records to a Dual.

From years of listening, they know that on a Dual, records are preserved indefinitely and will continue to sound as good as new no matter how often played. They also have come to appreciate Dual's ease of operation as well as its ruggedness and reliability.

*Typical examples of Dual precision that preserves and brings out the best in stereo records. A) Twin-ring gimbal suspension that lets tonearm pivot like a gyroscope for total freedom and perfect balance in tracking. B) Special setting that lets stylus track at perfect angle in single play and at center of stack in multiple play. C) Tracking force is applied at pivot, maintaining perfect dynamic balance of tonearm. D) Separate anti-skating calibrations for elliptical and conical styli are provided as each type skates differently. E) Tonearm counterbalance is elastically damped and has vernier adjustment with click-stops for convenience in changing cartridges.***

**If you'd like to know more.**

A few examples of Dual precision engineering are shown in the illustration above. But if you would like to know what several independent test labs say about Dual, we'll send you complete reprints of their reports. Plus a reprint of an article from a leading music magazine that tells you what to look for in record playing equipment.

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

You'll find Dual turntables priced from $99.50 to $175.00, including our new Integrated Module, complete with base, dust cover and magnetic cartridge at $119.50.

These may seem expensive at first, but not when you consider your present and future investment in records. And now that you know what record reviewers know, doesn't it make sense to own what they own?
LETTERS TO THE EDITOR

Quadrasonic Quandary

- I have undertaken a crash course of study to attempt to familiarize my less-than-technically-oriented mind with the electronic basics. Adding to my beginner's confusion are the omnous headlines in all of the trade publications—"Four-Channel Is Coming!", "Four-Channel is Here!". Well, four-channel sound might very well be gone by the time I've figured it out and determined exactly what it means for my present situation and future plans. Do I dare commit myself to an excellent and proven, but apparently old-fashioned, two-channel stereo system in the face of the onrushing technical breakthrough in four-channel? Or do I risk buying four-channel equipment, which is highly touted but still unproven in the marketplace, only to discover at a future date that it was a good but impractical idea?

Most published articles deal with four-channel sound as a fait accompli, with little regard for those just entering the field, or those already committed to two-channel stereo systems. Therefore, it was with great satisfaction that I read William Anderson's editorial in the October issue of STEREO REVIEW. There were no quick answers provided, but evidence that such answers do not yet exist: But finally someone of authority in the field has asked the right questions from the consumer's point of view.

JOHN F. STERNER
Alexandria, Va.

Technical Editor Larry Klein will ask some more of the "right questions" in an examination of Audio in the Seventies in the January issue.

Tchaikovsky Piano Concerto

- This letter is prompted by Eric Salzman's remarkable ignorance of traditional musical form shown in his review of the Tchaikovsky Piano Concerto in the October issue. Surely he must know that the reason he does not hear the "famous" theme after the opening is that it is an introduction to the main body of the first movement, which is in the traditional sonata form, and thus this material would not be heard again. Back to the books, Mr. Salzman!

DONALD SMITH
Madison, Wis.

Mr. Salzman replies: "From a textbook point of view Mr. Smith is quite right; as I have actually pointed out in these pages, the main subject of the first movement is, technically speaking, the hiccupy staccato figure in the solo piano that comes along after the maestoso of the opening dies out. The truth is that there is something radically wrong with a piece in which the introduction sounds like the main subject and the main subject sounds like a trivial episode. There would, in fact, be a good case for showing that it is Tchaikovsky who displays the "apalling ignorance of traditional musical form" by resorting to textbook good manners without any deeper understanding of either the organic nature of sonata form or the implications of his own musical ideas."

Barbarian "Borrowings"

- I have followed with interest the discussion precipitated by James Goodfriend's "Barbarian" column ('Going On Record," August). I enjoy some of Emerson, Lake and Palmer's material, but it finally dawed on me why the "borrowing" of classical themes by E.L.P., Waldo de los Rios, and numerous television shows and advertisements irritates me so intensely. When I hear one of these pieces I am raptorial by the theme but irritated by the lack of orchestral color, and often spend hours trying to recall from where it was pilfered. Occasionally there are other elements which make the new arrangement enjoyable, such as

Ramsey Lewis' "From Bach to the Blues" recording, but this is rarely the case.

As a rock-music fan, I feel a similar disgust when I sit in a Muzak-filled reception room and hear the Sammy Schmilz Strings and Chorus rape a song by the Beatles, Bob Dylan, or James Taylor. In any case, when it is a step down, I want nothing to do with it.

EUGENE S. ZIMMER
Atlanta, Ga.

Yep, it's spinach alright!

- I have some comments in reference to the miniature hurricane seeded by James Goodfriend's August column entitled "Barbarians and Music." Mr. Goodfriend brands pop artists who plagiarize classical music as "barbarians." I do not doubt this, but I must extend the observation by noting that the musical taste of the general public is also barbaric.

Let's not advocate the complete termination of "classical" pop releases. How many "barbarians" were educated as a consequence of the release of Waldo de los Rios' Song of Joy? Once the public discovers the victim of this piece, it will truly sing a song of joy. True works of art are in no danger from feeble pop trash. While the wind of these pop transmissions may temporarily trouble the waters, perhaps it will generate enough force to move true classical music from its present doldrums into more pleasant seas.

DAVID WILLIAMSON
Lansdowne, Pa.

Randy Newman

- I was interested in the piece on Randy Newman (October) not so much because I admire his music (I do) but because I thought Alfred Newman the finest film composer in the world. Lionel Newman, on the other hand, did not write, as Robert Windeler states, the score for The Best Years of Our Lives. Hugo Friedhofer, on the strong recommendation of Alfred Newman to Samuel Goldwyn, wrote the fine score and for it received his only Oscar in 1947.

DANIEL GREGG
Bronx, N.Y.

Mr. Windeler replies: "Emil Newman conducted Hugo Friedhofer's Oscar-winning score for The Best Years of Our Lives and both he and Lionel frequently scored or conducted movie music they did not write. Lionel's credits include the song Again, the scoring of Dr. Dolittle (words and music by Leslie Bricusse), and the score of Compulsion. Apologies to Mr. Friedhofer."

Bernard Herrmann

- I was glad that Bernard Herrmann's "Music from Great Film Classics" was chosen Best of the Month for the October issue. Mr. Herrmann is a brilliant composer and deserves much more attention than he has received.

But Paul Kresh erred in saying that an entire side one is from the film Jane Eyre. The second half is the Interlude from The Snows of Kilimanjaro.

ROBERT M. EASTMAN
Detroit, Mich.

Vox's Grieg

- David Hall's emendations of the labeling of Vox's recordings in his review of Grieg's piano (Continued on page 10)
Test reports in both HIGH FIDELITY and STEREO REVIEW prove the Altec 714A receiver is built a little better.

In February, HIGH FIDELITY magazine printed a detailed two-page test report (by CBS Laboratories) on the Altec 714A stereo receiver. The wrap-up comment read as follows: "All told, the 714A is one beautiful piece of audio machinery that should be given a long serious look by anyone in the market for a new high-quality stereo receiver." And in January, STEREO REVIEW'S equipment test report (by Hirsch-Houck Laboratories) stated, "In its general performance and listening quality, it is comparable to the best we have tested...."

The Altec 714A AM/FM stereo receiver delivers 44/44 watts of RMS power at less than 0.5% distortion (180 IHF music power). And for high FM sensitivity, it features 3 FET's and a 4 gang tuning condenser. Plus, 2 prealigned crystal filters and the newest IC's for better selectivity and more precise tuning.

The Altec 714A sells for $399.00. Hear it at your Altec dealer. Or, write for a complete Altec catalog and copies of available test reports. Altec Lansing, 1515 S. Manchester Ave., Anaheim, California 92803.
How good are we at doing our thing? About the incredible Servo-Statik 1, High Fidelity (June, 1970) said, "second-to-none", and The Stereophile (Winter, 1970) states, "stupendous".

Our $289 Infinity 2000A, Julian Hirsch in Stereo Review (November, 1971) says, "The simulated 'live-vs.-recorded' test confirmed what we had deduced from our measurements—the Infinity 2000A is one of the finest reproducers we have tested. Its highs and middles were not only present in the proper amounts, but were so well dispersed that it did a well-nigh perfect job of 'imitating' the original program at off-axis angles as great as 60 degrees.

Considering that few speakers can do as well on axis, and most show a pronounced loss of extreme highs at moderate off-axis angles, this qualifies the Infinity 2000A for an A+ rating in our subjective evaluations."

Pretty "heady" stuff... but for an encore, Infinity Systems is now introducing to you the most extraordinary value in sonic accuracy available today... the Infinity 1001 at $139. The exceptional clarity and transparency of the 1001 are a direct outgrowth of Infinity Systems' advanced speaker technology. From its transmission line bass system to its front and rear tweeters, it is the only low-priced speaker which can recreate the whole orchestral image and frequency spectrum with the lowest possible coloration in the industry. And at $139, it is a steal.

Mr. Hall replies: "My hand-written notes for the review tally precisely with Mr. Gwiasda's Corrections (Op. 57 does contain six pieces, of which five are played). My apologies that the errors got into print."

Classical Music on FM

There is something that can be done to preserve classical music on the air, even when commercial stations switch from classical to "popular" programming. Several years ago, station KHFJ in Austin, Texas, made this change. Local citizens were so disturbed that they organized a community classical music station, supported entirely by contributions from the station's listeners. KHFJ donated its entire stock of classical records to the new station, KMFA, and local businesses contributed large amounts of money to its founding. The music was advertised on the station, which broadcasts daily from 1 P.M. to midnight. Once every hour, the names of five of the founding businesses that contributed $1,000 or more are read. Occasionally there are periods of financial difficulty, but appeals for contributions from listeners always prove successful. Perhaps Austin can serve as an example to other cities that find themselves about to lose their classical stations.

W. T. Wingo, Jr.
Georgetown, Tex.

Prokofiev's Last Work

In his review of the Rostropovich performance of the Prokofiev Op. 125 (August), Lester Trimble states that "the Sinfonia Concertante was the composer's last work."

This is incorrect. The first performance of the Op. 125 was on February 18, 1952, with Rostropovich and the Moscow Youth Orchestra conducted by Stanislav Richter. The full score of the Seventh Symphony, Op. 131, was completed on July 5, 1952. It is true that some minor revisions were made on Op. 125 at the same time the Seventh Symphony was being completed and possibly subsequent to that date, but if revisions are to be sufficient reason to call the Op. 125 his last composition, one is forced then to consider the one-evening version of War and Peace, completed during the early part of 1953, as well as the revisions of The Stone Flower, also done during the early part of 1953. This is all assuming that one does not consider the Concertino for Cello and Orchestra, Op. 132, which was completed by Rostropovich from Prokofiev's sketches.

Karl F. Miller
Scarsdale, N.Y.

Mr. Trimble replies: "Mr. Miller is, of course, correct, and his letter serves to remind me of the ancient axiom I had forgotten this time around: never trust the liner notes! Annotator Felix Apsharoman, in this case, referred to the Opus 125 in his notes as Prokofiev's 'last major work,' which blithe conceit ended up in my version, as 'last work.' Certainly the Sinfonia Concertante is neither of these things, and the Seventh Symphony is both. One might argue on the question of how major or minor were the revision and recomposing of materials Prokofiev accomplished in order to produce the Sinfonia Concertante (called Symphonic-Certeto in every book I can put my hand on). But this is essentially beside the point. By its very definition, a revised early work, or an unfinished one, would very rarely qualify as a composer's 'last major opus."

Robert T. Schwartz
Rochester, N.Y.

Mr. Reilly replies: "The opinion of any reviewer is just that: an opinion. I tried to make clear that I knew I was in the minority in my feelings about Denver but that nonetheless it was a personal opinion. As to my limiting myself to writing rave reviews of Miss Baez's albums in the future STEREO REVIEW assign reviews of Denver albums to Mr. Coppage and those of Miss Baez to Mr. Reilly.

Robert T. Schwartz
Rochester, N.Y.

Correction

We were most pleased with the review of the Tandberg 4000X appearing on pages forty-four and forty-six of the October issue of STEREO REVIEW. However, the price given was incorrect—evidently picked up from an incorrect bill. Instead of $429, it should be $459.

Marlys Sherman
March Advertising, Inc.
New York, N.Y.
A violinmaker talks about the V-M Professionals.

Ken Warren of Ken Warren & Sons, Chicago, deals in treasured violins. At his workbenches are some of the few craftsmen whom the world’s greatest violinists trust to restore and recondition a Stradivarius or Guarnerius, the world’s more precious violins.

"The great crime of most equipment is distortion."

Our Model 1521 receiver delivers 40 watts a channel RMS, with extraordinarily low distortion and selectivity values, because we engineered it with 5-pole phase linear toroidal filters, ICs, printed board circuitry, MOSFETs, and more. It is awesomely powerful, dead quiet, and distortion-proof.

"Your automatic turntable is right in tune."

Ours not only play records perfectly but handle them beautifully. Records are lowered, onto a motionless turntable. Counterbalanced, anti-skate tone arm is longer for indiscernible tracking error. Beautifully isolated motors make Wow, Flutter, Rumble undetectable to the ear. All push-button controlled.

"This sounds very near a live performance."

Exactly what components are all about. You hear sound as recorded, not as interpreted by speakers. Our Model 93 uses domed tweeter, half-roll surround, self-contained midrange, and acoustic suspension woofer. Inductive-capacitive crossover delivers seamless transitions.

If the Professionals can please Mr. Warren, sound and recording engineers, and musicians, people whose business is sound, we’re confident they can make you very happy, too. For all the facts and figures, write: Professional Series, Dept. 74, P.O. Box 1247, Benton Harbor, Michigan 49022.

Made in Benton Harbor, Michigan by V-M Corporation.

Model 1521. Suggested retail, $500.00.
Model 1596. (Automatic turntable.) Suggested retail, $165.00.
Model 1595. (Automatic turntable magnetic cartridge, base, cushion, cover.) Suggested retail, $220.00.
Model 93. Suggested retail $134.00.
No matter what you plan to spend for an AM-FM stereo receiver, H.H. Scott, Inc. has a value-for-the-price leader to satisfy your highest expectations for flawless sound, convenience in use, and trouble-free long life.

Consider the top-of-the-line model 477, shown above, as an example. It’s got IHF sensitivity of 1.9µV and puts out 70 conservatively rated Scott watts into 8 ohms with both channels driven. Separate signal strength and center channel tuning meters provide maximum convenience in tuning. Up to three stereo speaker pairs may be connected and switching flexibility allows any two to be used simultaneously. In addition to all the necessary front panel controls, jacks for headphones, microphones and tape recorder inputs/outputs are located up front for maximum accessibility.

Naturally, the Scott 477 AM-FM stereo receiver includes all the time honored Scott design features such as FET front end, silver plated tuner, full complementary silicon output stage, trouble-free, solderless “tension wrap” connections, and one of the most powerful amplifiers ever built into an integrated receiver. At $399.90 it outpoints its competition across the board.

In fact, Scott makes the best receiver you can buy, period.
Scott also makes the best receiver you can buy for under $200

If you’d like to spend a little less, consider one of our middle line models as shown at the lower right. The model 387, which has received more favorable reviews than any other AM-FM stereo receiver in recent times, offers 55 watts per channel and most of the features of the 477 for a price of $359.90, also out-pointing its competition on value for the price. Its look alikes, the 377 and 367, deliver 40 and 32 watts per channel at $319.90 and $259.90 respectively, and include the same Scott quality and major design features. If you’re just getting started in really high quality stereo or replacing older equipment, try the Scott 357, shown at the right above. It produces 25 watts per channel for $199.90. It’s the first truly high fidelity American made stereo receiver to sell at a price under $200.00.

All these value-for-the-price leaders are available, along with matching Scott controlled impedance speaker systems, at your Scott dealer’s. Ask him to demonstrate the Scott line before you make any AM-FM stereo receiver purchase.
Discwasher Record-Cleaning System

Discwasher is a record-maintenance kit consisting of a cleaning brush and a specially formulated cleaning fluid. According to the manufacturer, certain molds and fungi that can develop on record surfaces in the presence of moisture may harm the vinyl material as well as interfere with the proper tracing of the groove by the stylus. The Discwasher fluid is intended to remove such bacterial colonies and inhibit their further formation. It is also said to be an effective solvent for the fatty substances found in fingerprints. The brush is used to apply the fluid as the disc rotates on the turntable and to perform the cleaning and subsequent drying operations. Its pile is woven into the fabric base on a bias that, when opposed to the record's rotation, aids in lifting and removing deposits from the groove. The pile also exhibits a capillary action that dries the record by drawing the cleaning fluid from its surface. The Discwasher brush has a walnut handle in which the container of fluid is stored between uses. Price of the kit: $12.95. Additional bottles of fluid are $1.95 each.

Soundcraftsmen Model 10-12 Audio Frequency Equalizer

Soundcraftsmen's new Model 10-12 Audio Frequency Equalizer is a single-channel unit that provides continuous variable level control over the ten octaves of the audio band (20 to 20,480 Hz) in one-octave increments. The ten slider potentiometers that act at the center of each octave have a range of ±12 dB, with sharper bandwidth characteristics the farther they are moved from their 0-dB settings. An eleventh slider control is used to adjust the overall output, with 6 dB of gain and 12 dB of attenuation available. The unit has no insertion loss when all the controls are centered.

An unusual feature of the Model 10-12 is a large meter calibrated in decibels that can be switched to read input or output levels, or shut off entirely. A front-panel control is provided for calibration of the meter. With all controls at their 0-dB settings the Model 10-12 has a frequency response of 20 to 20,480 Hz ±0.025 dB. Harmonic and intermodulation distortion are both under 0.1 per cent for a 1-volt output, and the signal-to-noise ratio is better than 90 dB. Input and output impedances are 100,000 and 600 ohms, respectively. Tape-monitoring facilities are included to replace those of the amplifier or receiver, which are used for the connection of the equalizer. There is also a bypass switch that permits the equalization circuits to be switched in and out for A-B comparisons. A test record supplied with the equalizer has one-octave pink noise signals that cover the audio band, alternated with 1,000-Hz tones recorded at a reference level. Spoken instructions on the record tell the user how to use the test signals for equalization of his playback equipment and reduction of listening-room effects. The equalizer is also effective in improving imperfectly recorded program material. The Model 10-12, which comes installed in a walnut-grain wood cabinet, measures approximately 5¾ x 17¼ x 11 inches. There is a full two-year warranty. Price: $299.50.

Panasonic SA-5800 AM/Stereo FM Receiver

Panasonic's new line of stereo receivers will encompass five models, among them the SA-5800, a moderately priced ($259.95) AM/stereo FM unit with off-the-tape monitoring facilities for two three-head tape decks. Continuous power output with both channels driven is 27 watts per channel into 8 ohms, with 0.5 per cent harmonic and 0.7 per cent intermodulation distortion. The frequency response is 15 to 65,000 Hz ±0.5-3 dB. The high-level inputs have a signal-to-noise ratio of 90 dB; 70 dB is the corresponding figure for phono.

The SA-5800's tuner section has an IHF FM sensitivity of 1.8 microvolts, with harmonic distortion of 0.4 per cent at full modulation. Other specifications include 80 dB selectivity, a capture ratio of 1.5 dB, and image and i.f. rejection of 90 and 100 dB. Stereo separation at 1,000 Hz is 35 dB. A tuning meter next to the linearly calibrated dial reads center-of-channel for FM and signal strength for AM. In addition, the dial pointer indicates maximum FM signal strength by glowing red. The control facilities of the SA-5800's front panel include a five-input selector knob (PHONO, FM AUTO, FM MONO, AM, and AUX), volume and balance, concentric bass and treble controls (separate for each channel), and a speaker switch that selects either or both of two stereo pairs, or mutes all speakers for headphone listening via a front-panel jack. There are toggle switches for the two tape-monitor circuits, mono/stereo mode, and FM interference-noise muting, and pushbuttons for power on/off, loudness compensation, and high-cut filter (6-dB-per-octave rolloff above 5,000 Hz). The rear panel has a center-channel output, preamplifier outputs and power-amp.

(Continued on page 16)
If you've got the jack, we've got the cassette deck.

No matter how big your room, or how small your budget, Panasonic has a stereo cassette deck that can fit right in.

Jack in our compact model, the RS-256UAS. It has a lot of the features our bigger, higher-priced decks have. Like easy-to-work pushbutton controls. A digital counter. Fast forward and rewind. Plus two large VU meters. They tell you when you're recording at just the right levels. And Auto-Stop to shut off the machine at the end of the tape. So your tape won't get damaged.

The RS-256UAS even has a special noise-suppressor switch to cut off those grating hisses. And Pause Control. So you can turn off the Grand Funk Railroad without turning off the machine.

Of course, the bigger your pocketbook the more you get. When you jack in the RS-275US, you get Memory Rewind. Preset the machine. And it automatically returns to a particular spot on the tape. There's even a tape selector switch. To let you play low noise, as well as conventional tapes.

Then there's the RS-272US with its own special trick. Automatic reverse. It switches tracks automatically. So you can listen to twice as much Bach without getting off your back.

But maybe money isn't your problem. You want all the cassette deck that you can get.

Then your franchised Panasonic Hi-Fi dealer can show you the RS-275US. It has a combination of features no other deck can match. Like sensitive, long-lasting, Hot Pressed Ferrite heads. And two motors. One is direct drive for record and playback. The other is for fast forward and rewind.

All of this adds up to a signal-to-noise ratio of better than 45dB. A frequency response of 30-15,000 Hz. Plus wow and flutter of less than 0.1% WRMS. And it's all at your fingertips with our solenoid touch controls.

So if you've got the jack, just see your Panasonic dealer. He'll show you how to get beautiful music out of it.

Panasonic just slightly ahead of our time.


CIRCLE NO. 56 ON READER SERVICE CARD
Acoustic Research AR-LST Speaker System

Hegeman 1 Loudspeaker System

Nikko Model STA-8010 AM/Stereo FM Receiver

A new speaker system, the AR-LST (Laboratory Standard Transducer), intended for such professional applications as studio monitoring and acoustic-laboratory work. Its power handling is such that it can accept up to 1,000 watts on momentary peaks, but requires no more drive power than the AR-3a. A six-position front-mounted switch introduces controlled, repeatable contours into the system's frequency response. The frequency-contouring system, called SBC (spectral balance control), varies the output of the low and high frequencies relative to the mid-range. An autotransformer preceding the frequency-dividing network provides the precise 1-dB adjustment steps for the woofer and tweeter.

A single front-facing woofer is used, crossing over to four 1 1/2-inch dome mid-range drivers. Mounted in vertical pairs is included in the price. Other receivers in the Panasonic line range in price from $199.95 to $990.

Circle 148 on reader service card

HEGEMAN LABORATORIES has brought out the Hegeman 1 speaker system, a floor-standing two-way design with an upward-directed hemispherical radiation pattern. The system uses an 8-inch woofer with a drawn aluminum cone, wired so that it receives the full audio bandwidth. The tweeter is a 1-inch dome unit, driven through a capacitance-resistance crossover that passes frequencies above 5,000 Hz. The tweeter housing, specially shaped to front load the woofer, is bracket-mounted in front of the woofer cone. The two drivers face upward, aligned slightly toward the listener. A tweeter-level control located in the rear of the sealed enclosure adjusts the high-frequency output of the system. Frequency response is 30 to 20,000 Hz, with a power-handling capability of 25 watts. A minimum of 15 watts per channel of amplifier power is recommended. The impedance is 8 ohms. The Hegeman 1 system is relatively compact (11 x 8 3/4 x 26 inches) and is clad in teak-finish vinyl and topped by an acoustically transparent black grille-cloth cage. Price: $99.50 each.

Circle 149 on reader service card

NIKKO has added several new components to its line of stereo electronics. Prominent among them is the Model STA-8010 AM/stereo FM receiver. Behind the unit's black-out faceplate are the two tuning dials and signal-strength and channel-center tuning meters arranged point-to-point. The control facilities encompass the usual volume, balance, bass, and treble, plus switchable loudness compensation (low-frequency boost only), source/tape monitoring, high- and low-cut filters, and switchable FM interstation-noise muting. The program selector has positions for six inputs, including one that provides gain and NAB equalization for tape playback decks without electronics. Two pairs of speakers are accommodated, with a switch that selects one or both pairs, and a mode switch has positions for stereo, reverse, and left or right channel alone.

Maximum power output is 19 watts per channel continuous when both are driven into 8-ohm loads, and distortion is 0.8 per cent at rated output. The signal-to-noise ratios are 60 dB for phono, 65 dB for high-level inputs, and 55 dB for the tape-head inputs. IHF FM sensitivity is 1.8 microvolts, with a capture ratio of 3 dB and 40 dB separation at 1,000 Hz. Stereo FM distortion is 0.8 per cent. Overall dimensions of the STA-8010 are 15 1/4 x 4 1/4 x 12 1/4 inches. Price: $239.95. Among the other new additions to the Nikko line are two AM/stereo FM tuners at $109.95 and $239.95, an integrated stereo amplifier at $109.95, and a second AM/stereo FM receiver at $199.95.

Circle 150 on reader service card

The latest in high-fidelity equipment

Circle 150 on reader service card

Circle 147 on reader service card

Circle 146 on reader service card
FREE INFORMATION SERVICE

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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Circle the number on the card that corresponds to the key number at the bottom of the advertisement or editorial mention that interests you. (Key numbers for advertised products also appear in the Advertisers' Index.)

Simply mail the card. No postage is required.

This address is for our "Free Information Service" only. All other inquiries are to be directed to Stereo Review, One Park Ave., New York, N.Y. 10016.
Stereo Review's Free Information Service can help you select everything for your music system without leaving your home, and at no cost to you.

Simply by following the directions on the reverse side of this page, you can receive additional information about any product advertised in this issue.
Santa's Favorite Hang Up

Turn on to AKAI for Christmas—with a complete new line of audio and video equipment you'll get hung up on.

You'll find over 20 superbly engineered tape decks and recorders—highlighted by AKAI's GX-365D stereo tape deck with the exclusive AKAI glass and crystal ferrite head... dust and wear-free—lifetime guaranteed.

Our innovative stereo tape decks and recorders include the CS-50D with INVERT-O-MATIC—automatically reverses the cassette for continuous recording and playback. Or, tune in to AKAI's CR-80 8-track cartridge recorder—engineered with a new one-micron gap head for wider frequency response.

For the ultimate experience in multi-dimensional sound, don't miss the 1730D-SS-1... AKAI's true 4-channel/2-channel compatible tape system. Records on 4 separate channels—plays back through 4 separate "Jet Stream" speakers—complete with 80-watt quad amplifier.

And, here's something really new. Create your own TV shows with AKAI's family of 1/4 inch video tape recorders. The portable VT-100 captures picture and sound for instant playback on its built-in monitor or through your TV set. It's battery or A.C. operated, weighs less than 20 lbs. The VT-700 Deck records and plays for 80 minutes and is complete with off-the-air recording capability and sound-dubbing.

AKAI is world renowned for its uncompromising standards. See the exciting spectrum of AKAI products at your AKAI dealer. Discover a whole new bag of ideas for Christmas.
There are two ways to pick a receiver: by examining your budget, or by using your ears. They both can work—but the best approach is a combination of the two.

For example, you could simply decide which of the four Sony receivers best matches your budget: the low-priced 75-watt Sony 6045, the moderately-priced 100-watt Sony 6055 and 220-watt 6065; or the top-of-the-line Sony 6200F with 245 watts of power (and many other goodies).

Taking that approach you're bound to get good value for your money, but not necessarily the best value for your circumstances. You could wind up buying a little less Sony than you need—or shelling out for a Sony that more than surpasses your requirements. But you should be able to narrow it down, on price alone, to two or at most three Sonys. From there on, you have to use your ears and your intelligence.

First, look for a Sony dealer fairly near you; that's not only for convenience, but so his FM reception problems will be just about the same as yours. Then visit him, carrying a record that you know and love (if you've loved it to death already, get a fresh copy). Test first for general sound quality. Using the same speakers you have at home (or ones of similar efficiency), play the loudest portion of your record at the loudest volume you're likely to listen to. See which Sony sounds cleanest to you (though, thanks to our direct-coupled circuitry, they all sound very clean); that tells you which have enough power for your needs. (But remember, if your room's noticeably bigger than the dealer's, or you're planning to switch to a less efficient speaker, you may need a bit more power still.)

Now try to tune your favorite stations. Even if the dealer's on your block, reception conditions won't be absolutely comparable. But the receiver that brings your station in most clearly
there should do the same when you get home with it.

Now look for other features that you think you will need. If stereo is your abiding interest, you will appreciate the 6200's stereo-only switch, that blanks out mono FM stations. And its hi-blend switch that cuts distant-station noise without eliminating the highs or losing much stereo separation in the mid-range. If you find a second phono input or a center-channel output jack very desirable, you'll choose the 6200F or 6065, which have them, over the 6055 and 6045, which don't. And so on.

Some similarities:
All four Sony receivers have: 70dB signal-to-noise ratios, and such features as linear tuning dials, headphone jacks, switchable loudness contour and hi-filters, FET front-ends and solid-state IF circuits, dual power supplies and direct coupled outputs, speaker selector switches. All but the 6045 have: muting switches, front panel AUX jacks, quick-disconnect DIN tape recorder jacks, and center-tuning meters (the 6045 has a signal-strength meter instead; the 6200F has both types). All but the 6020F have 80 dB IHF selectivity and 1.5 dB capture ratio (6200F has 100 dB and 1.0 dB respectively).

Some differences:

<table>
<thead>
<tr>
<th>Feature</th>
<th>6065</th>
<th>6055</th>
<th>6045</th>
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</thead>
<tbody>
<tr>
<td>IHF FM Sensitivity</td>
<td>1.8uV</td>
<td>2.2uV</td>
<td>2.6uV</td>
</tr>
<tr>
<td>IHF Music Power, 8Ω</td>
<td>245W</td>
<td>220W</td>
<td>100W</td>
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<tr>
<td>IHF Music Power, 4Ω</td>
<td>360W</td>
<td>255W</td>
<td>145W</td>
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<td>RMS@4 ohms</td>
<td>90/90W</td>
<td>80/80W</td>
<td>50/50W</td>
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<tr>
<td>THD &amp; IM at rated power:</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.2%</td>
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<tr>
<td>Power Bandwidth, IHF</td>
<td>10-40,000</td>
<td>15-30,000</td>
<td>15-30,000</td>
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</table>

But, if you would prefer to sit at home and pick your Sony by its specs, go ahead. You'll find the basic ones in the box above — and you can get the rest by sending for our pocket-sized Sony Selector Guide. All you'll miss will be the fun of playing with the units themselves at your dealer. Sony Corporation of America, 47-47 Van Dam Street, Long Island City, N.Y. 11101.
Memorex Chromium Dioxide Tape.

The tape that will change your whole opinion of cassettes.

Memorex Chromium Dioxide Tape has a totally different composition from conventional cassette tapes. It extends frequency response and delivers a clarity and brilliance of sound never before possible on cassette. Chromium Dioxide is so drastically different, you'll need a specially designed cassette recorder to use it.

You've probably read about conventional cassette tapes that claim to be so improved it's not necessary to switch to special Chromium Dioxide equipment.

Let us simply say this:

Equipment manufacturers recognized the Chromium Dioxide breakthrough, and designed cassette recorders to take advantage of it.

Listen to a Memorex Chromium Dioxide Cassette on the new specially designed equipment. Compare it to any cassette that claims equal performance on standard equipment.

You'll find there's no comparison.

MEMOREX Recording Tape
Reproduction so true it can shatter glass.

CIRCLE NO. 50 ON READER SERVICE CARD


**Chromeum Dioxide Tape**

*Characteristics*

**Q.** There seem to be all sorts of rumors floating about on chromium-dioxide tape, and I wonder whether you can clarify any of the questions involved. For example, I have heard that Crolyn is difficult or impossible to erase once a signal has been recorded on it, that it wears tape heads excessively, and that it is unstable and poisonous under certain environmental conditions. Do you have data on any of this?

**A.** To take your questions in order: yes, CrO₂ is more difficult to erase, but today's latest cassette and open-reel recorders seem to be able to handle it reasonably well. Oddly enough, some bulk tape erasers that we have tried have not been as effective as a cassette recorder's erase head in removing previously recorded material. This may be because the erase head is able to focus more magnetic energy where it is needed.

On the subject of head wear, my impression, based on conversations with manufacturers of both tape and recorders, is that today's chromium-dioxide tape is equivalent to ferrous-oxide tapes in this regard. In other words, you'll find normal oxide tapes that have both better and worse wear qualities than chromium dioxide does.

I checked with the chemistry department of a large research outfit about the stability and toxicity of CrO₂. I was told that whereas some chromium compounds are relatively unstable and have to be stored under special conditions, once they convert to their stable forms—chromium dioxide is one of their stable forms—it is not easy to volatilize or to chemically change them into something else. Specifically, CrO₂ releases an oxygen atom and changes into chromous oxide at 300 degrees Centigrade. To the best of anyone's knowledge, neither the oxygen nor the CrO has any special toxic properties.

**Built-in Speaker Wiring**

**Q.** I am completely renovating one wing of my home and I would like to install plugs and wiring in my walls to connect speakers. Since I've heard that it is possible to develop a hum if things aren't done correctly, would you please advise me as to the following: (1) what type of cable, (2) type of connectors—are standard phone plugs okay?, (3) maximum lengths of cable, (4) the need to keep cable and connectors away from high-voltage power lines is not their susceptibility to a.c. hum, but rather their tendency to pick up strong radio-frequency fields from TV and radio stations and local amateur broadcasters. The use of shielded and ground BX cable will minimize this possibility.

**A.** For permanent installation of speaker wire within walls I would suggest the best type of cable to use would be whatever the building code in your area recommends for standard a.c. line use. There is certainly nothing wrong with using BX armored cable, making sure that the BX shield is grounded to an external cold water pipe as is normal practice. The major problem with speaker lines is not their susceptibility to a.c. hum, but rather their tendency to pick up strong radio-frequency fields from TV and radio stations and local amateur broadcasters. The use of shielded and grounded BX cable will minimize this possibility.

As far as the connectors are concerned, probably the best technique would be to terminate the cables in junction boxes such as are used for a.c. outlets and either buy or have made up cover plates for the junction boxes with audio jacks. Heavy-duty phone jacks will do. Avoid using standard a.c. plugs and sockets because sooner or later someone would plug one.
WE CALL IT TOTAL
ENERGY RESPONSE

It's more than the way our woofers, tweeters and purring mid-ranges sound. It's the way they're designed to sound. Total Energy Response is the design concept that gives each one of our six new Jensen Speaker systems a fuller, richer sound than ever before.

It's a difference you can hear when you compare our systems to any others. So much so that we believe our new systems give you the best performance per dollar on the market today. Consider the new speaker systems from Jensen. They're backed by the best 5 year warranty in the business.

Model 1. It's what happened when we crossed a woofer with a tweeter. And got a two element, full range system with an 8" driver.

With Jensen Flexair suspension, Model 1 sounds so good you won't believe it costs only $30.


At $48, you get a lot more than you're paying for.

Model 3. Perhaps you noticed the deeper wooing? Right. There's a 10" Jensen woofer with a 4 layer coil and our lyrical 3½" direct radiating tweeter, in a Tuned Isolation Chamber. Plus Flexair suspension, special crossover, walnut cabinet. Incredible at $75.
Model 4. A three way system introducing the first purr in speakers. Jensen's purring mid-ranges. It's supported by a 10" woofer and our Sonodome ultra-tweeter. There's a four layer coil on the woofer, Tuned Isolation Chamber enclosing the mid-range.

With our Flexair suspension. Special crossover. Two balance controls. Walnut cabinet.

It's possibly the finest system in America at just $99.

Model 5. What a cast of characters. A three way system with a bevy of beautiful speakers. A 12" woofer, two purring 5" mid-ranges, Sonodome ultra-tweeter.

With our exclusive Flexair suspension and crossover networks. A four layer woofer coil. Tuned Isolation Chambers on the mid-ranges. Two balance controls. Walnut cabinet.

This outstanding system is yours for a paltry $147.

Model 6. This swinging four way system includes a huge 15" woofer, 8" purring direct radiating mid-range, 5" direct radiating tweeter, Sonodome ultra-tweeter.

There's a four layer coil on the woofer, Tuned Isolation Chambers on the mid-range and tweeter.

This system includes Jensen Flexair suspension, our exclusive crossovers, and a walnut cabinet with console base. For $198, you're getting one of the finest systems available at any price.
of your speakers into an a.c. line. As far as
the location of the jack boxes is con-
cerned, you'll have to work that out logi-
cally, taking into account the dimensions
of the room and where your equipment
console will probably be installed. In re-
spect to the maximum length of speaker
cable you can use, the conductors in BX
are heavy enough so that you can, with-
out difficulty, run hundreds of feet of
wire without substantial losses. The prox-
imity of the speaker leads to a.c. house
wiring shouldn't cause problems, since, as
was stated above, cable noise is usually
r.f. pickup (which usually appears as a
mixture of buzz, voice, and music). A sep-
aration of a foot or so should minimize
the possibility of re-radiation of r.f. noise
from the a.c. line into the speaker line—if
unshielded speaker cable is used.

There is no reason why extra connec-
tors cannot be put into the wall for possi-
ble relocation of speakers, but remember
that if you follow conventional wiring
practices, all of the outlets will be con-
ected in parallel, which means that, for
example, you should not plug more than
two 8-ohm speakers into any one line, un-
less your amplifiers' instructions state spe-
cifically that it can operate with speaker
loads of less than four ohms. You can use
any type of standard a.c. switch in the
speaker line or mounted on a small brack-
et on the rear of the speaker to turn it on
and off.

Short-Wave Hi-Fi

Q. I would like to buy a short-wave
tuner to hook up to my present
stereo receiver. Do you know of any such
unit and how best to connect it?

ROGER CARLSTON
Lauring AFB, Me.

A. I don't know of any American-
made short-wave tuner, but there
are probably some available from the
German and English manufacturers. In
any case, these are not short-wave tuners
exclusively but also include the conven-
tional AM and FM bands that would du-
PLICATE those in your present equipment.
Your best bet, if you are interested in
short-wave listening, is not a short-wave
tuner to be connected to your component
system, but rather a complete SW receiv-
er meant to play through its own speaker.
You would then have a far wider variety
of brands and models to choose from.
And you should be aware that, in general,
short-wave broadcasts are so cluttered
with noise and distortion that playing
them through a high-fidelity system
would not help the clarity but simply be
an invitation to listening fatigue.

Because the number of questions we
receive each month is greater than
we can reply to individually, only
those questions selected for this col-
umn can be answered. Sorry!
MORE POWER TO THE PEOPLE,
FOR A LOT LESS MONEY

When you have a stereo AM/FM receiver selling under $200, you’re making people a powerful offer.

**100 WATTS FOR $199**

For that price, the S-7100 offers more amplifier power (25 + 25 R.M.S. at 8 ohms) than any other receiver.

Of course, Sherwood does not live by power alone. So the S-7100 is loaded with impressive specifications and extravagant features you usually find on expensive models.

FM sensitivity is 1.9 μV (IHF). Amplifier distortion is a mere 0.2% at listening levels. And you get a variety of selector switches, including an FM interchannel hush control and an extra front panel tape record/dubbing jack.

Plus one feature you’ll find hard to get at this price. Every S-7100 comes with an oiled walnut cabinet at no extra charge.

The S-7100 has all the power you ever dreamed of. At the kind of price you dreamed of paying.


SHERWOOD SOUNDS EXPENSIVE
We proved it with the Elac-Miracord 50H.

Now we've improved it.

Announcing...
the 50H II

The original ELAC/Miracord 50H hasn't just proved itself. It's proved to be a classic. So we've improved it. With the new 50H II, we gave it new flexibility in speed control. Not just by letting you adjust your records' speed and pitch by 6% (a semitone), but also by building in an illuminated stroboscopic speed indicator that lets you return to absolute pitch accuracy at will. Because without that stroboscope, a pitch control would have you listening more often at the wrong speed than at the right one.

And we improved the rack-and-pinion counter-weight adjusting system to make it even more convenient and easy to adjust.

But when we added these improvements, we kept everything else that had made a classic of the original 50H:

The Papst hysteresis-synchronous/motor, proved in thousands of 50H's—and in more thousands of professional studio tape recorders around the world. Because hysteresis motors keep their speed up even when the power goes down (in brownouts, for instance).

The metal cam that holds its precision, unchanged, through thousands of hours of play.

And the leadscrew tracking-overhang adjustment, still the simplest and easiest in the field.

The 50H II is priced at $199.50.

And for those who still cherish it, the original 50H is still available at $175.

Another quality product from Benjamin.

The Ampex AX-50 stereo tape deck has three of the strongest heads money can buy. Deep-Gap heads made to last 10,000 hours, without variance in gap or frequency response. Which is about 10 times longer than regular heads. That’s strong!


You need a strong deck to pick up today’s heavy sounds. And the AX-50 is the strongest in its price range. $249.95 (suggested retail price)

THE PHONO CARTRIDGE

IF YOU’VE thought about it at all, you probably realize that the groove of a phonograph record embodies a physical representation of the acoustic vibrations that make up sound. To translate the physical undulations of the groove back into sound, the earliest phonographs had a metal needle that traced the groove’s wriggles and twists (or hills and valleys), and transmitted the buffeting it thereby received to a lightweight diaphragm to which it was physically linked. This diaphragm, a direct forerunner of the speaker cone, agitated the air at its surface, and the result was sound.

Records are not played with needles anymore. The modern device is a miniscule jewel, usually a diamond, that has been ground down to a polished cone with a rounded point. A thin metal tube called the cantilever holds the diamond and conducts its vibrations not to an acoustical diaphragm, but to the body of the phono cartridge, a small object mounted in the playing end of the tone arm. The cartridge converts the mechanical vibrations of the assembly into electrical signals, and electrical signals they remain until, much amplified, they reach the loudspeaker, which returns them to a mechanical state. With the phono cartridge, the phonograph evolved from a mechano-acoustical machine to an electro-acoustical one, with all the attendant benefits.

To do its work, the cartridge must either process (control) or generate electrical energy into electrical variations that correspond to the physical vibrations activating it. Most high-fidelity cartridges in this country are magnetic types—moving magnet, moving coil, moving iron, and induced magnet. These all depend on the principle of science-textbook electrical generators: the movement of a magnetic field through a coil of wire, or vice versa. (The moving part is, of course, attached to the cantilever.) Crystal and ceramic cartridges make use of solid blocks of piezoelectric materials that respond to deflections of the cantilever by producing an electrical voltage. These voltages are frequently large enough to be routed directly to an amplifier’s high-level auxiliary inputs. The output of a magnetic cartridge is weak by comparison, and must be processed by special MAGNETIC-PHONO inputs for preliminary amplification (and frequency-response adjustment) before being admitted to the amplifier circuits that receive other program sources.

High-quality crystal and ceramic cartridges are now rare in this country, and are usually found only in inexpensive ready-to-play “compact” music systems. (However, less worthy piezoelectric cartridges are virtually inevitable in inexpensive console and portable phonographs, since they permit the manufacturer to save himself the cost of the additional amplification the magnetics require.) The magnetic cartridge dominates in most critical applications, and will receive most of the emphasis in cartridge discussions in this column in months to come. But, at this point, let me advise the shopper to be aware of this principal difference between cartridges, since it is seldom worthwhile or practical to attempt to upgrade a cheap system by switching to a magnetic cartridge, or to try using a poor ceramic cartridge with good components.
PILOT LEADS THE WAY IN FOUR-CHANNEL SOUND.

With the new Pilot PMC-4000 Quadrasonic Modular Center, four-channel sound comes of age.

For little more than the price of a good stereo receiver, you can now enjoy the multi-dimensional, "ear-opening" qualities of four-channel sound.

The PMC-4000 offers everything you will ever need in a discrete four-channel receiver and then some.

To begin with, four separate amplifiers put out 100 watts of usable power. Enough power to drive all but the most inefficient speakers to concert hall levels.

The extremely sensitive FM tuner section (2.5 microvolts IHF) is right down there with the best of them. And the AM sounds almost as good as FM.

Naturally, the Pilot PMC-4000 has all the usual features and controls you'd expect to find in a fine receiver, as well as some fascinating surprises.

For example, a clever little push-button brings into play our QQ5 circuit, which literally transforms two-channels into four.

This ingenious circuit recovers the reflected, but hidden, sounds that already exist on most regular stereo recordings and broadcasts, and feeds them to the rear speakers, recreating the original concert hall ambiance.

Moreover, the PMC-4000 is fully compatible with any record matrixing system, present or future.

But where the PMC-4000 really comes into its own, is with discrete source material such as the new eight-track, four-channel tape cartridges.

These cartridges have been specially recorded and processed to take full advantage of the spectacular sonic effects and lifelike reproduction inherent in the four-channel system.

And while on the subject of tape cartridges, Pilot also makes a high quality tape cartridge player, the PTD-400 Quadrasonic Tape Deck, that is a fitting complement to the PMC-4000. Just plug it into the back of the receiver, hook up four of our PSE-10 acoustic suspension speakers and you've got a four-channel stereo system that beats the best of them. And for a lot less too.

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

(CIRCLE NO. 53 ON READER SERVICE CARD)
The tweets and birdies that happen when the high frequencies in your input signal beat against the bias frequency can't happen in our new cassette deck, F-107. Because its bias frequency is so high — 100 kHz — that even beat frequencies are too high to be audible.

And you won't get the speed-up gabble or the slowdown groan that means your recorder taped something at one speed but is playing it back at another. That's because our hysteresis synchronous motor drive assures precise, uniform speed at all times, despite those power fluctuations that are so common these days.

What you do get is 30-13,000 Hz response, a 47 dB signal-to-noise ratio, and less than 0.2% wow and flutter. Plus features like the dual bias tape selector that we pioneered, Endmatic automatic stop that saves transport and tape wear, and all the controls that you could wish for (even a mono-stereo switch). Just $149.79. Concord Division, Benjamin Electronic Sound Corp., Farmingdale, N.Y. 11735/subsidiary of Instrument Systems Corp.

CONCORD F-107
NOISE-REDUCTION SYSTEMS: Although noise is always an unpleasant "fact of life" in audio systems, there are a number of ways to minimize its audibility. Over the years many techniques have been tried for reducing audio noise to insignificant levels, with varying degrees of success. Any undesired sound that accompanies the desired signal can be considered as noise, whether it be turntable rumble, hum, or the soft hiss of electronic "random" noise at the higher audio frequencies. The first two examples can usually be eliminated by good equipment design and proper installation. However, despite all engineering efforts, some hiss always remains to place a lower limit on the minimum usable signal level, thereby limiting dynamic range. Hiss from the electronic circuits of quality amplifiers and preamplifiers is usually negligible and frequently inaudible at any reasonable listening level. But the hiss introduced by the tape-recording process as well as that present in FM broadcasts is still loud enough to intrude upon and sometimes obscure the quiet details of many types of program material.

Most noise-reduction systems employ filters to attenuate the high hiss frequencies that contribute most to audible noise. But filters that are fixed in frequency and attenuation action, no matter how well designed, inevitably remove—in addition to the noise—some of the high frequencies from the program material. Therefore, most noise-reducing systems use dynamic filters whose action varies with the level of the program, its frequency content, or both.

This is not a new concept; the old Scott Dynamic (Dynaural) Noise Suppressor of the late 1940's was a dynamic filter. Its major weakness was the manner in which the filter's action responded to the program requirements. The slight but unavoidable delay (or time-lag) in the turning on and off of the filters was usually only too audible as a "swish" or pumping action on the program and noise levels. The cure being as objectionable as the ailment, the system fell into disuse.

The first really effective solution to noise reduction (as far as we know) was the Dolby system. Ray Dolby, the inventor of the system, eliminated the audible swish by restricting the operation of his circuit to low program levels, where its dynamic effects could not be heard. And the last vestige of effects on program content contributed by the filter's action were eliminated in the Dolby system by designing it as a closed system. During recording, low-level high frequencies were emphasized, and during playback an exactly opposite de-emphasis was applied. The net frequency response of the program, recorded and played back through the Dolby circuits, was completely unaffected, yet high-frequency hiss introduced by the tape-recording process was reduced by 6 to 10 dB.

This description applies to the Dolby "B" system, used in consumer products. The professional "A" type Dolby operates in four frequency bands covering the full audio range, and is therefore also effective against rumble, hum, and other noise, but the "B" type is strictly for hiss reduction.

Effective as Dolby's approach was, it was of no help in reducing noise already present in the program, or when the recording or broadcast had not been Dolby processed. Recently, an "open" system of noise reduction was introduced by Kenwood. This also uses dynamic filters, controlled by program level, to attenuate high-frequency noise during playback. Like the Dolby, the Kenwood "De-Noise"s (as they are inelegantly but aptly named) operate only at very low program levels—from 40 to 50 dB below normal listening level. Though they do remove some high frequencies from the program when they operate, in most cases their action cannot be detected. The Kenwood units can reduce hiss from any program source by up to 15 dB.

Philips/Norelco has recently introduced their own
Lafayette LA-44 Four-Channel Amplifier

- **LAFAYETTE'S** new Model LA-44 four-channel integrated amplifier is actually two complete stereo amplifiers, with all the controls of a normal stereo amplifier in duplicate, plus the extra controls and flexibility needed for four-channel operation. It will handle both discrete and matrixed program sources, and, in addition, it contains a circuit for deriving a rear "ambiance" signal from any two-channel source. The amplifier is remarkably compact: 13½ inches wide, 4 inches high, and 9½ inches deep. It weighs 15½ pounds. It is nominally rated at 20 watts per channel continuous output at 1,000 Hz at less than 0.8 percent distortion with 8-ohm loads.

Input sources for the front and rear amplifiers are selected by two rows of pushbutton switches. The inputs are for two auxiliary high-level sources plus TUNER and PHONO. The function-selector switch is responsible for much of the operating versatility of the LA-44. The three counterclockwise positions are for two-channel stereo inputs. Either front or rear inputs can be channeled to all four speakers, or external reverberation can be added to the rear signals. Jacks are provided in the rear for connection to a high-level source, and the power switch.

- **STEREO REVIEW**

noise-reduction system, which operates in a way similar to the Kenwood system. Although quite sophisticated, the Philips Dynamic Noise Limiter (DNL) system is much less expensive, but at the moment it is available only built into the Norelco/Philips cassette machines.

A third type of device that has potential as a noise reducer is the compressor/expander. Compressors have long been used by recording studios and radio stations in situations where a decrease in dynamic range is called for. This is accomplished by increasing the level of the lowest signals in the program by gradual increments while leaving the loudest passages untouched. When such a device is used to compress a program before recording and then to expand it back to its original dynamic range during playback, the effect on noise is something like that wrought by the Dolby, except that all program-material frequencies are affected simultaneously.

Successful application of a compressor/expander requires exactly complementary compression and expansion characteristics over a wide dynamic range, with negligible distortion and equal response times in both modes of operation. Since it is operative at all program levels, it is intolerant of even minor aberrations that might go unnoticed in a system that functions only at very low levels. The high cost of professional compressor/expander systems has kept them from the home market, and the few which have appeared at reasonably low prices in recent years have failed to meet the previously stated requirements. Recently, however, a new company (dbx, Inc.) has introduced a relatively inexpensive but sophisticated compressor/expander.

We have made laboratory and use tests of a number of consumer-type Dolby units, two Kenwood "De-Noisers" and the dbx 117 compressor/expander. Our goal was to evaluate the operating characteristics and special features of each unit. Our findings are presented elsewhere in this issue.
Empire's most exciting Grenadier

DESIGNED TO OUTPERFORM ANY SPEAKER UP TO TWICE THE PRICE

new model 7500M

Three Way System •
- 15 inch woofers
- direct radiator mid-range
- ultra sonic domed tweeter

Wide Angle Dispersion •
- 360° spread for lows
- 180° at high frequencies

High Power Capacity •
- 100 watts power per channel

- Extended Response
  25-20,000 Hz.

- Elegant Pedestal Enclosure
  20 inch diameter
  26 3/4 inches high

- Irresistibly Low Priced
  at $169.95; with imported marble top $184.95

Wait until you hear this great speaker. Listen to the kind of sound no box can deliver. In Empire's stereo cylinder the woofer faces down for bass so live it gives you goosebumps. There is no ugly grill cloth, the handsome finish goes all the way around and the marble top is meant to be used. Empire's Grenadiers are available in satin walnut or antique oak finish.

For information and further details, write Empire Scientific Corp., 1055 Stewart Ave., Garden City, N.Y. 11530.
Introducing the Heathkit

The new Heathkit AR-1500 Stereo Receiver succeeds our AR-15. But the AR-1500 is no facelift. It embodies substantial improvements in every major area of the circuitry — resulting in more pure power, greater FM and AM selectivity and sensitivity, and a much easier kit to build. And in 1967 when we introduced what was rightfully called "the world's most advanced receiver", the technology somewhat overshadowed the fact that the AR-15 was probably the best value in audio. The new AR-1500, still at 349.95, is an even better buy!

Better Power, not just more of it, gives you better stereo listening. The AR-1500 provides 180 watts Dynamic Music Power, 90 watts per channel (60 watts RMS), under an 8 ohm load (120 watts per channel under 4 ohms), with less than 0.25% harmonic distortion all across a bandwidth of less than 8 Hz to more than 30 kHz. IM distortion is less than 0.1%. Direct coupled output and driver transistors are protected by limiting circuitry that electronically monitors voltage and current. And a completely regulated power supply for the preamp and tuner circuits offer better stability and noise characteristics.

Better FM, better phase linearity, better separation and less distortion result from two computer-designed 5-pole LC filters. Alignment is a simple one-step operation. An improved 4-gang 6-tuned circuit front end gives better stability. 1.8 uV sensitivity, 90 dB selectivity, 1.5 dB capture ratio, 100 dB image and IF rejection. There are four ICs, three in the IF, one in the Multiplexer. And the patented automatic FM squelch is both noise and deviation activated, fully adjustable for sensitivity.

Better AM, the "once-over-lightly" section in many receivers, has been subjected to the same engineering scrutiny that was applied to every part of the AR-1500. The design incorporates two dual-gate MOSFETS in the RF and Mixer stages, one JFET in the oscillator, a 12-pole LC Filter in the IF, broad band detector and an adjustable rod antenna. You get better overload characteristics, better AGC action, and no IF alignment.

Better Looking, with a new form that follows its function. "Black Magic" lighting hides the AM and FM tuning scales and meters when the unit's turned off. A velvet-smooth flywheel-action knob tunes AM and FM, pushbuttons control all system modes. Panel and knobs are chrome-plated die castings. And there are outputs for two separate speaker systems, pushbutton controlled from the front panel; front-panel jacks for two sets of headphones; bi-amplification outputs for separable preamps and amps; connections for oscilloscope monitoring of FM Multipath. Conventional inputs for phono, tape, tape monitor and auxiliary sources all have individual level controls.

Better to Build, with 10 plug-in circuit boards, two wiring harnesses and extensive use of pre-cut wiring with clip connectors. Built-in test circuitry uses the signal meter to make resistance and voltage checks as you go along, install your new, better AR-1500 in the low-profile walnut cabinet, in a wall or existing cabinet, or use the black-finish dust cover included with kit. It just may be the best stereo receiver you'll ever own!

Kit AR-1500, less cabinet, 42 lbs., mailable 349.95
ARA-1500-1, walnut cabinet, 6 lbs., mailable 24.95

AR-1500 SPECIFICATIONS
TUNER — FM SECTION (Monophonic): Tuning Range: 88 to 108 MHz. Intermediate Frequency (IF): 10.7 MHz. Frequency Response: ±1 dB, 20 to 15,000 Hz. Antenna: Balanced input for external 300 ohm antenna. 75 ohm antenna input may be used between either FM antenna terminal and ground. Sensitivity: 1.8 uV. Volume Sensitivity: Below measurable level. Selectivity: 90 dB. Image Rejection: 100 dB. Capture Ratio: 1.5 dB. AM Suppression: 50 dB. Harmonic Distortion: 0.5% or less. Intermodulation Distortion: 0.1% or less. Ham and Noise: 60 dB. Squares Rejection: 100 dB. FM SECTION (Stereophonic): Channel Separation: 40 dB or greater at midfrequencies; 30 dB at 50 Hz; 25 dB at 10 kHz. Frequency Response: ±1 dB from 20 to 15,000 Hz. Harmonic Distortion: 0.5% at 1000 Hz with 100% modulation. 15 kHz and 38 kHz Suppression: 50 dB or greater. SCA Suppression: 55 dB. AM SECTION: Tuning Range: 535 to 1620 kHz. Intermediate Frequency (IF): 455 kHz. Sensitivity: 50 uV with external input; 300 uV per meter with radiated input. Selectivity: 20 dB at 10 kHz; 60 dB at 20 kHz. AM Antenna: Built-in rod type; connections for external antenna and ground on rear chassis apron. Image Rejection: 70 dB at 600 Hz; 50 dB at 1400 kHz. IF Rejection: 70 dB at 1000 Hz. Harmonic Distortion: Less than 2%. Ham and Noise: 40 dB. AMPLIFIER — Dynamic Power Output per Channel (Music Power Rating): 90 watts (8 ohm load);* 120 watts (4 ohm load); 50 watts (16 ohm load).
We've improved the AR-15 and held the price! Still $349.95*

- 180 watts of Dynamic Music Power
- 90 dB FM selectivity
- AM performance approaching FM quality
- Outputs for two separate speaker systems
- Individual input level controls
- "Black Magic" panel lighting
- Easy modular-board assembly

AR-1500 Stereo Receiver

Heath has a better cassette recorder too!

The new AD-110 Stereo Cassette Recorder offers a typical frequency response of 30-12 kHz for full fidelity reproduction of all mono and stereo cassettes, including chromium-dioxide. The built-in record bias adjustment requires no external equipment, utilizes the front-panel meter and a built-in reference. Features include precision counter, automatic motor shutoff, preassembled and aligned transport mechanism. Compatible with any quality mono or stereo system.

Kit AD-110, 10 lbs. .......................... 119.95*
ADA-110-1, matched stereo mikes, 6 lbs. 19.95*

*Mail order prices; F.O.B. factory. Prices & specifications subject to change without notice.
making it possible to record simulated four-channel programs on discrete four-channel tape machines. The Lafayette LA-44 is supplied in a metal case, finished in simulated wood grain. Price: $219.95.

**Laboratory Measurements.** We made most of our power and distortion measurements with all four channels driven, using 8-ohm loads. Although this is an unusually severe test, it does reflect possible "actual-use" conditions, albeit of the most rigorous kind. With a 1,000-Hz test signal, the LA-44 clipped at slightly over 17 watts per channel. With 4-ohm loads, the output was 24 watts, and with 16 ohms it was 10.6 watts. We also checked clipping levels and distortion with only two channels fully driven, which probably is more representative of actual use conditions. As expected, slightly higher power output was obtained—19.5 watts into 8 ohms, 25.5 watts into 4 ohms, and 12.8 watts into 16 ohms.

The 1,000-Hz harmonic distortion was masked by noise at low levels, but was under 0.2 per cent from 1 watt to about 16 watts (20 watts with two channels driven), and was less than 0.1 per cent over most of that range. The 1H distortion in four-channel operation was 0.33 per cent at 0.1 watt, 0.1 per cent or less from about 1 watt to 14 watts, and 0.9 per cent at 15 watts.

We chose 10 watts per channel as a reference full-power output. Below 50 Hz, the distortion at 10 watts rose abruptly, but was 0.21 per cent or less from 50 to 10,000 Hz, rising to 0.55 per cent at 20,000 Hz. At half power and one-tenth power, distortion was about 0.4 per cent at 20 and 20,000 Hz, and was typically 0.1 to 0.2 per cent at most intermediate frequencies.

A 10-watt output required an input signal of 175 millivolts at the AUX inputs, 390 millivolts at the TUNER inputs, and 2.6 millivolts at the PHONO inputs. Hum and noise were extremely low: -80 dB, -74 dB, and -70 dB, respectively, at the three inputs. Phono overload occurred at 58 millivolts—a safe level for any good cartridge.

We also measured the effect of the COMPOSER circuit. A single-channel (L or R) input appeared at both rear outputs with the same level as the driven front channel. Crosstalk in the other front channel was -46 dB at 1,000 Hz. An in-phase (L + R) input was reproduced at full level in the front channels, but was attenuated 15 to 20 dB in the rear. (The two front channels had slightly different outputs, but we do not believe this is inherent in the COMPOSER circuit.) With out-of-phase signals of equal levels applied, the front channels carried full signal levels out of phase. The rear-channel phase relationships corresponded to those of the front, but their levels were +5.2 dB. These measurements were made at maximum gain settings; the rear levels would normally be reduced for proper balance.

The high-cut filter had a 6-dB-per-octave slope, beginning at 4,500 Hz. The loudness compensation boosted both low and high frequencies at reduced volume settings. The tone controls had good characteristics, although their action took place entirely in the first two thirds of their rotation from center.

**Comment.** Considered as a two-channel amplifier—or a pair of them—the Lafayette LA-44 was an excellent unit of moderate power and good distortion characteristics. As with most comparable amplifiers, its power-output capability in the low bass is somewhat restricted. But, to our surprise, it operated at comfortable levels, without audible distortion, when driving some fairly low-efficiency speakers that normally would be driven by an amplifier of several times the power of the LA-44. Although its control array is imposing, the LA-44 is really quite simple to use (thanks to the excellent instruction manual) after a brief familiarization period. We were not enthusiastic about the volume control system, which requires at least two adjustments every time the volume is changed (with care to avoid disturbing the left-to-right balances) during four-channel operation. But we recognize the economic and physical considerations that dictated it.

It appears that the COMPOSER circuit routes an unmodified "difference signal" (L - R) to the two added rear speakers. Since there is no left-to-right rear separation, this does not give quite the same four-channel simulation provided by the separate and more sophisticated matrix adapters. However, it does add a worthwhile sense of ambiance to two-channel programs.

In view of the variety of functions designed into a unit of its size, the Lafayette LA-44 is an impressive package. Although the power available from each channel may not seem very much, remember that this is a four-channel amplifier that can deliver a total of more than 60 watts of continuous output with low distortion. This is no mean achievement for a $220 amplifier.

For more information, circle 156 on reader service card.

(Test reports continued on page 40)
THE FOUR-CHANNEL EVERYTHING.

SANSUI BREAKS THE BOTTLENECK.

The "wait-and-see" period is over. You can go ahead and overwhelm yourself with the awesome power of the total four-channel sound field right now. And tomorrow too.

Sansui's QR6500 Four-Channel Stereo Receiver makes it possible. Actually it's an AM/FM Two-Channel and Four-Channel Stereo Receiver-Synthesizer-Decoder-Amplifier and Control Center. Add four speakers (you probably have two of them already) and live. That's all there is to it.

As a synthesizer, it can ferret out the ambient signals already present in most two-channel stereo recordings and broadcasts and process them for astonishingly realistic rear-channel reproduction. Enhancing this effect is Sansui's exclusive phase-modulation technique, which moves the sound about the listening area the same way nature propagates the live sound field.

As a decoder, it can accurately reproduce the four original channels of any compatibly matrixed four-channel recording or FM broadcast. And such discs and broadcasts are here now, past the experimental stage, becoming increasingly popular. In this mode, Sansui's original phase-shift circuitry prevents the sound dropouts and lost sound-source localization that plague many matrixed systems. And the phase modulators are also at work to build up that "live sound field."

As a straight-through four-channel stereo center, it can handle open-reel or cartridge four-channel tapes, or any other discrete four-channel source. It features 280 watts of total IHF music power (50 watts continuous per channel at 4 ohms; 37 watts continuous per channel at 8 ohms). Normal-level response is 20 to 30,000 Hz ± 1 dB. Distortion at rated output is less than 0.5%. IHF sensitivity of the high-performance FET FM tuner is 1.8 microvolts.

It has slide controls for front-rear and right-left balance, illuminated digital indicators for two- and four-channel modes, and a full complement of controls and accessory circuits for any two-or four-channel function you can think of. You can even "dial" the best speaker arrangement — four-corner style, front 2-2, or what have you.

It's Sansui's embodiment of the four-channel era. Model QR6500.

SANSUI ELECTRONICS CORP.
Woodside, New York 11377 • Gardena, California 90274
SANSUI ELECTRIC CO., LTD., Tokyo, Japan • SANSUI Audio Europe S. A., Antwerp, Belgium

CIRCLE NO. 62 ON READER SERVICE CARD

DECEMBER 1971
**ADC 10E Mk IV Phono Cartridge**

- The ADC 10E Mk IV differs in several ways from its predecessors, and can really be considered a new cartridge. Its electrical specifications, for the most part, are similar to those of previous 10E models. A major difference is in the rated tracking force (formerly from 0.5 to 1.5 grams), which is now a single value: 0.7 gram. Externally, the cartridge has been redesigned to resemble the top-of-the-line Models 25 and 26. The removable stylus assembly is a U-shaped plastic part that slides easily on and off the cartridge body. It appears to be physically identical to the stylus of the ADC 25 and 26, but we do not know if they are in fact interchangeable.

The 10E Mk IV, like the other ADC cartridges, uses the induced-magnet principle. Almost all its magnetic structure—magnet, coils, and pole pieces—is in the molded plastic body. The stylus cantilever moves neither a magnet nor a coil, but a soft-iron collar. The magnetic flux induced in this collar by the fixed magnet is relayed, in accordance with the stylus motion, to the pole pieces, which generates a voltage in the associated coils.

The ADC 10E Mk IV differs from previous ADC cartridges in having virtually no mechanical damping in its moving system. Stylus damping is obtained from eddy currents induced in the metal housing surrounding the pole pieces. This technique is claimed to provide superior upper mid-range tracking and a reduction in IM distortion. The stylus of the ADC 10E Mk IV is a 0.3 x 0.7-mill elliptical diamond, designed to conform to the standard 15-degree vertical tracking angle. Price: $50.

- **Laboratory Measurements.** The frequency response of the ADC 10E Mk IV, playing the CBS STR-100 record, was flat within ±1 db up to 10,000 Hz, and rose to +5 db and +8 dB at 20,000 Hz on the two slightly different channels. The channel separation was 25 to 30 dB below 10,000 Hz on one channel and about 20 dB on the other. The separation was maintained solidly at higher frequencies, measuring 15 dB at 20,000 Hz for both channels.

To see how far the cartridge’s response extended, we also measured it with the CBS STR-120 record, which goes to 50,000 Hz. Relative to mid-range levels, the output reached a maximum of +3 to +6 dB at 20,000 Hz, returning to the reference level at 25,000 Hz. Channel separation remained strong all the way.

These measurements were made with about five feet of shielded cable between the cartridge and the test instruments (ADC recommends limiting cable lengths to five feet to avoid capacitive loading of the cartridge). With an additional 100 pf (picofarad) of capacitance, the output peaked broadly between 11,000 and 14,000 Hz, returning to the reference level at 20,000 Hz. With an additional 220 pf, the peak was at 11,000 Hz, and output was ~3 dB at 20,000 Hz. With a 470-pf capacitor, the high-frequency performance deteriorated greatly, peaking at 8,000 Hz and falling to ~8 dB at 20,000 Hz. The moral is: keep the cables short!

The square-wave response of the cartridge, with the CBS STR-111 record, showed a single cycle of ringing, which would be expected from the slightly underdamped high-frequency resonance. The cartridge output signal at a reference level of 3.54 cm/sec recorded velocity was 3.6 millivolts—about average for a high-quality cartridge. Our tests of the cartridge’s tracking ability completely confirmed ADC’s claims for its performance. The Cook Model 60 test record, which has a 32-Hz signal recorded at an extremely high level, was tracked effortlessly at 0.4 gram, a tracking force far lower than any we have ever been able to use before. The 30-cm/sec, 1,000-Hz bands of the Fairchild 101 record required only 0.6 gram for minimum distortion—also a new low. The IM distortion measurement with the RCA 12-5-39 record showed essentially the same results with either 0.7 or 1 gram of tracking force. Distortion was less than 1.3 per cent (close to the residual of the record) at velocities of 22 cm/sec or less, and only 2.3 per cent at the maximum velocity of 27.1 cm/sec for a 0.7-gram force. We cannot recall testing any other cartridge that could track 27.1 cm/sec at any force—let alone 0.7 gram—with so little distortion.

The tracking-ability test, using the Shure Audio Obstacle Course test record, clearly placed the ADC 10E Mk IV in the top rank of cartridges. At 0.7 gram, it scored a perfect 100 per cent. Playing all levels of all the instrumental selections without audible distortion—except for the orchestral bells, which have proved too much for any cartridge we have tested. Only one or two other cartridges in our experience have done as well on this disc.

- **Comment.** In listening tests, it came as no surprise to find that the ADC 10E Mk IV had a very “easy,” crisp, and clean sound. Needless to say, it tracked any of our records at the rated 0.7 gram force. ADC points out (and we concur) that this cartridge is suitable for use only in the finest tone arms, those capable of operating at less than a gram of tracking force. This includes the top-grade automatic turntables, and we used it in one with complete success.

One of the most noteworthy features of the ADC 10E Mk IV is its price—hardly what one could call “low,” but still well below that of its predecessor and most of its competitors.

(Continued on page 42)
When it comes to fine stereo receivers...

a Marantz is a Marantz is a Marantz.

That means Marantz not only makes the finest most expensive stereo equipment in the world, but also the finest least expensive stereo equipment. Take the Marantz Model 2215 FM/AM stereo receiver for only $199.00. You’re getting 15 watts RMS per channel, and exclusive Gyro-Touch tuning. You’re also getting the same Marantz prestige, the same craftsmanship, and the same Marantz quality offered in our most expensive equipment.

$199

If you’re a purist and willing to pay for perfection, then you want the finest, most expensive stereo FM receiver in the world. The Marantz Model 19. Yes, it is $1000. It is the best stereo FM receiver money can buy. And will more than justify your investment.

$1000

Same name, same quality—regardless of price. That’s Marantz’ superior quality, inherent in the full line of components priced from $1200.00 to as low as $139.00. And to complete your system, choose a Marantz Imperial speaker system. Marantz. We sound better.
petition. In a day when cartridge prices have soared to as much as $100, this unit signals (we hope) a reversal of the trend. To our knowledge, there is no finer cartridge on the market, and very few at any price that are really in its class, when all performance aspects are considered.

For more information, circle 157 on reader service card

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**IMF Studio Speaker System**

within ±4 dB from 90 to 13,500 Hz. The output rose at low frequencies to a maximum in the 60- to 70-Hz region and remained strong and useful down to about 35 Hz. There were no detectable irregularities in response at the crossover frequencies.

Polar response (dispersion) was good over a ±60-degree angle in the horizontal plane. The asymmetrical arrangement of the drivers in the upper portion of the cabinet produces slightly different high-frequency distributions off toward the sides of the speakers. IMF manufactures this speaker in mirror-image "left channel" and "right channel" versions, with the high-frequency drivers intended to be positioned toward the inside of the stereo stage. This is claimed to improve the stereo imaging. However, we could not hear any significant difference when the two speakers were interchanged. As the ±2-dB control range for the mid- and high-frequency drivers would suggest, the system response can be tailored only in a rather subtle manner. Nevertheless, distinct differences could be heard when the response was varied in 1-dB steps, attesting to the inherent smoothness of the system.

The electrical impedance measured between 7 and 10 ohms from 65 to 20,000 Hz. It rose to 19 ohms at the bass resonance frequency of 55 Hz, falling again to a minimum of 10 ohms in the 25- to 35-Hz range. At a 1-watt drive level, the harmonic distortion was under 2 per cent down to 50 Hz, increasing to 5 per cent at 40 Hz and to 15.5 per cent at 30 Hz. Tone-burst response was very good at all frequencies.

The simulated live-vs.-recorded test showed generally excellent performance. Extreme high frequencies (over 10,000 Hz) were slightly lacking when the speaker was (Continued on page 44)
A Marantz speaker system breaks up that old gang of yours.

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

Let's face it: most speakers look the same, most speakers have an impressive list of specifications and ALL—ALL—ALL speakers claim to be the very A-1 HOT SHOT MOSTEST BEST. But the proof is in the listening. And that's where the Marantz Imperial 5 comes in. The Imperial 5 is engineered to handle a plethora of continuous RMS power, yet has high efficiency suitable for low-powered amplifiers, has fantastic off-axis response, and a 3-position high frequency control and costs just $89 and gives you true stereo separation anywhere in the room and is, for the money, truly the very A-1 HOT SHOT MOSTEST BEST.

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We sound better.
listened to on-axis, and they were noticeably down at angles up to 60 degrees off axis. There was also a slight mid-range coloration (barely detectable even with this very sensitive test). We found the most faithful reproduction, in our listening room, with the mid-range level at minimum and the high-frequency level at maximum. We give the IMF Studio an "A" rating as an accurate reproducer of sound—just below the two or three top-ranking speakers we have tested.

**Comments.** The IMF Studio is a notably smooth, balanced-sounding speaker. Its reduced output in the uppermost octave can be detected only in direct comparison with the original material or with speakers having a strong and well-dispersed high end (and these are surprisingly rare). One can actually feel as well as hear the bass output of the 8-inch woofer—a tribute to the effectiveness of the bass loading system. The IMF Studio performed just as well when placed six feet from the wall as with normal mounting against the wall, and seemed to be much less sensitive to room placement than most speakers we have used.

All told, the IMF Studio is a fine speaker system, very easy to listen to for extended time periods. With a little more high-frequency output and better dispersion, it would rank with the best speakers we have tested in recent years.

*For more information, circle 158 on reader service card*

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**Sherwood S-7300 AM/Stereo FM Receiver**

- The Sherwood S-7300 provides, at moderate cost, the amplifier power and tuner sensitivity formerly available only in much more expensive receivers. The S-7300 measures 18% inches wide, 14% inches deep, and 5% inches high in its oiled walnut cabinet, and its weight of 29 pounds attests to its rugged construction and heavy-duty power supply. The "blackout" dial face covers the softly lit green FM and AM dial calibrations, and the single tuning meter has a zero-center scale for FM tuning and reads relative signal strength for AM. The tuning scales are not visible when the AUX or PHONO inputs are used, and a brightly lit input identification appears in the dial window.

The S-7300 has two magnetic-phono inputs, one of which can be switched for use as a microphone input. The input selector, speaker selector (for two pairs of speakers), bass and treble tone controls, mode switch, and balance control are operated by a row of small knobs along the lower portion of the panel. The major controls—tuning and volume—are large knobs at the right of the dial window. The volume-control knob also operates the a.c. power switch.

Five pushbuttons below the dial window control tape monitoring, FM muting, low- and high-frequency filters, and loudness compensation. At their right are a stereo headphone jack and a tape-dubbing jack. The latter is in parallel with the rear tape inputs and outputs. A second tape recorder can be plugged into the jack and used to copy programs from the recorder connected to the rear jacks, or vice versa. Inserting a phone plug into the jack disconnects the normal program source.

In the rear of the S-7300 are binding-post terminals for two pairs of speakers, an AM ferrite-rod antenna, all the input and output jacks (including a separate DIN connector for tape-recorder connection), and two a.c. outlets, one of which is switched. One jack, which we have not seen on other receivers, is marked 4 CH FM OUT. It carries the demodulated FM audio before de-emphasis or multiplex decoding, and is presumably for use in the event of the adoption of a four-channel FM broadcasting system requiring access to this part of the FM-tuner circuit.

*(Continued on page 48)*

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*Inaudible low-frequency noise interfered with the distortion measurements. Above about 500 Hz, a filter was used, which caused the discontinuity of the curves. The dotted portion of the distortion curve (below right) is also mostly inaudible noise.*
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Smoked glass top. Hand-rubbed oiled
walnut finish. Mandarin or Coffee or
Indigo grille.
But beauty starts inside.
See your nearest JBL high fidelity specialist
and hear what we did.
Six ceramic i.f. filters are used in the FM section, along with one I.C. The price of the Sherwood S-7300 receiver, including its wooden cabinet, is $319.95.

**Laboratory Measurements.** The measured IHF sensitivity of the S-7300 was 1.8 microvolts—a good indication of the fine performance of the FM tuner. The FM frequency response was ±1.5 dB from 30 to 11,000 Hz and was down 3 dB at 15,000 Hz. Stereo crosstalk was between -20 and -25 dB from 30 to 9,500 Hz and was -12.5 dB at 15,000 Hz. FM distortion (mono) was between 0.8 and 0.95 per cent for all signal levels above 3 microvolts at full modulation. Since the limiting curve of the receiver was very steep, the S-7300 provided quiet, distortion-free reception of very weak FM signals. The image rejection was a good 90 dB, AM rejection was average at 47 dB, and the signal-to-noise ratio (with hum frequencies excluded, since the residual hum of our signal generator would influence the readings) was an impressive 75 dB. Capture ratio was 2.4 dB.

The AM frequency response was down 3 dB at 1,800 Hz, and 10 dB at 3,400 Hz. Although this frequency response is not great, even by the relaxed standards applied to AM reception, the sound quality was adequate, as were the sensitivity and background noise.

The audio amplifiers proved to be powerful indeed, compared with those of other receivers in this price class. With both channels driven into 8-ohm loads, clipping occurred at 53 watts per channel. The maximum power into 4-ohm loads was 65 watts per channel, and into 1.6 ohms it was 33 watts per channel. The 1,000-Hz harmonic distortion was below 0.1 per cent for all outputs under 45 watts per channel, although it was masked by low-level (and inaudible) noise at outputs below 1 watt. The FM distortion was also very low, ranging from 0.3 per cent at 0.1 watt to less than 0.07 per cent at 45 watts. We chose 45 watts per channel as a reference full-power level. Over most of the audio frequency range, from 70 to 7,000 Hz, the distortion at full power was under 0.1 per cent, increasing to 1 per cent at 27 and 0.85 per cent at 20,000 Hz. At half power and one-tenth power, the distortion was between 0.025 and 0.15 per cent from 20 to 15,000 Hz.

The audio hum and noise were about 70 dB below 10 watts on AUX and MIC inputs, and -66 dB on PHONO. These are low, completely inaudible noise levels. The phono sensitivity was high, with only 1.2 millivolts needed for 10 watts output, and the overload point of 58 millivolts virtually ruled out overload with any good cartridge.

The tone controls were able to provide considerable correction at low and high frequencies with little effect on the mid-range response. The filters, whose slopes were at a 6-dB-per-octave rate, nevertheless had well-chosen "cut-off" points (100 and 5,000 Hz), which made them reasonably effective. The RIAA phono equalization was within ±1.5 dB from 60 to 15,000 Hz. The loudness compensation boosted both low and high frequencies at reduced volume-control settings. Our only negative criticism concerned the action of the FM muting circuit. The loud noise bursts when the receiver was tuned off a station were so disturbing that we generally preferred to dispense with the muting entirely.

**Comment.** In its general performance, the Sherwood S-7300 acquitted itself admirably. Its powerful, clean audio amplifiers should be able to drive almost any home speaker system with ease, the FM tuner ranks with the better ones in sensitivity and quieting, and all the controls worked with the usual Sherwood smoothness. All things considered, the Sherwood S-7300 is an excellent value.

For more information, circle 159 on reader service card.

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For complete specifications visit your nearest KENWOOD Dealer or write...
BETWEEN 1886 and 1890 Richard Strauss was engaged with four large-scale orchestral works at the same time. The first of them to be completed was the four-movement "symphonic fantasy" Aus Italien. Next came two symphonic poems with literary sources, Macbeth and Don Juan. Finally he produced yet another symphonic poem, Death and Transfiguration, which also seemed to have a literary inspiration, for a long poem by Alexander Ritter was printed on the flyleaf of the score when the music was published. Only later was it revealed that Strauss' music came first; Ritter wrote his poem apparently as a guide to the events depicted in the music. Ritter was an ardent champion of the musical philosophies of Liszt and Wagner, and it was he who converted the young Strauss to the cause of "program music." Though it is played without a break, Death and Transfiguration falls naturally into four sections: (I) Largo, (II) Allegro molto agitato, (III) Meno mosso, ma sempre alla breve, and (IV) Moderato. In a paraphrase of Ritter's running narration of the "action," the four sections can be described as follows:

1. In a dark room, silent except for the ticking of a clock, a dying man has fallen asleep and is dreaming of his childhood.
2. In his dreams he relives the struggle between life and death.
3. The whole parade of life-and-death battles passes by. He remembers childhood, youth, and his strivings during manhood toward goals and ideals still unrealized.
4. In death he attains what had been denied him in life—"World-redemption, world transfiguration."

Strauss himself conducted the first performance of Death and Transfiguration at a concert at Eisenach, Germany, in June, 1890, as part of the twenty-seventh Musicians' Convention of the Allgemeiner Deutscher Musikverein.

Death and Transfiguration has had its ups and downs with both critics and audiences. Romain Rolland once characterized the score as one of the "most moving works of Strauss . . . constructed with the noblest unity." On the other hand, Hans von Bülow, an early and devoted champion of Strauss, found the work important "in spite of sundry poor passages." In recent years, there has been a decline in the frequency of the score's "live" performances, though nearly a dozen recorded performances are still available. More of them are budget-label performances than are full-price versions—and my own favorites are all on budget labels.

Paramount among them is the mono-only performance recorded in January, 1950, about five years before he died, by Wilhelm Furtwängler and the Vienna Philharmonic Orchestra (Seraphim 60094). Not unexpectedly, the metaphysical quality of the score evokes from Furtwängler a performance of unparalleled perception and penetrating insight. He ennobles the score and makes even its gaucheries convincing within the overall framework of the structure. The sound, though hardly competitive in today's audio arena, is still serviceable.

Otto Klemperer (Angel S 35976) approaches the music from an orientation similar to Furtwängler's, and although Klemperer deals handsomely with the music, he fails to reach the sublime heights of Furtwängler's interpretation. The product of more recent sonic technology, Klemperer's recording certainly has richer and more impressive reproduction. Among available full-price discs, this is my choice.

Pierre Monteux recorded a performance of Death and Transfiguration with the San Francisco Symphony Orchestra in January, 1960, but it was not released until just a few years ago, in RCA's Victrola line (VICS 1457). It is a surging, turbulent performance of a kind quite different from those of Furtwängler and Klemperer, but a thoroughly successful one nonetheless. RCA's recorded sound for Monteux is more vivid than EMI's for either Furtwängler or Klemperer.

Two former conductors of the Cleveland Orchestra, Artur Rodzinski and George Szell, are also represented in the catalog by low-price recordings, Rodzinski on the Seraphim label (60030) and Szell on Odyssey (Y 30313). Their performances are less personalized than those of Furtwängler, Klemperer, and Monteux, but each is a convincing statement of a more direct approach to the music. Szell's received more forward recorded sound. This recording was also among the first reel-to-reel tape releases issued by Epic. It is still listed as available in the latest Harrison Tape Catalog (EC 805), and it is the one I prefer among the three there.
"All connoisseurs who seriously explore the musical repertoire, no matter where they begin, eventually find their way back to Bach."

THE MUSIC OF J.S. BACH
What to listen to and what to listen for

By JAMES GOODFRIEND

The name "Bach" has been a good name to musicians at virtually all times in music history. In Thuringia, where Johann Sebastian Bach was born, his family name was not only well known, but almost equated, by the local populace, with the profession of musician—there were that many musical Bachs around. Johann Sebastian himself was renowned and appreciated in the Germany of his time, and if his fame was largely local that was due, at least in part, to the rather sedentary life he led. True, he was not considered a master of masters, but that kind of understanding does not usually come from one's contemporaries. After J. S. Bach's death, his name (though not the name Bach, which was revered in the persons of at least two of his sons, Carl Philipp Emanuel and Johann Christian) went into the shadows, from which it was rescued gradually by musicians who had sufficient genius themselves to recognize his. Haydn knew and admired some of his music and so did Mozart. Beethoven knew The Well-Tempered Clavier and revered it. Mendelssohn, through his teacher Carl Friedrich Zelter, "rediscovered" Bach and reintroduced him to the larger musical public. In our own century, Bach was the ideal of the neo-Classic movement, and all connoisseurs who seriously explore the musical repertoire, no matter where they begin, eventually find their way back to Bach. Even in today's rock culture, Bach is a good name. Your average fuzz-bass guitarist may never have heard a note of his music (except, perhaps, on the Moog), but the name is still good, untouched by the disagreeable aura that seems, to rock people, to cling to all cultural manifestations that are not of their generation's devising.

To understand Bach properly, or indeed, at all, it is necessary to have some idea of where he fits in the history of music. He was not, as Richard Wagner once thought—or, at least, wrote—the creator of German music. German music was alive, well, and flourishing long before J. S. Bach was born, and it might not be too much to say that never before or since that time has the world enjoyed the simultaneous presence of so many capable, often inspired, composers. That situation was also not confined to Germany; there was musical gold to be found in Austro-Hungary, Italy, France—even in England. Bach's position was somewhat different. He was, in a very real sense, the summing up of all that had preceded him, all of it raised to new aesthetic and technical heights. Music at the end of the seventeenth century was not a single idiom, but a group of national languages, of which the dominant three were Italian, French, and German. The differences among them were so great that the Italian composer and violinist Arcangelo Corelli found himself incapable of playing a composition in the French style with the more internationally minded Handel because he did not understand the musical language. These differences were not merely those of form and emphasis, but of the very style of writing, notation, and performance. It was Bach's great accomplishment to effect, as the late musicologist Manfred Bukofzer put it, the "fusion of national styles."

Bach was not a musical revolutionary; quite the opposite. The kind of music that preoccupied him for the whole of his life was moribund in most of Europe before he was an old man. He was a staunch conservative in musical style and, in retrospect, he was right. The musical style that grew up while he was still alive and that succeeded to full dominance after his death was one of music's weakest. It was a time—and a style—that turned its back on polyphony and the intellectual aspects of music, became over-enamored of pretty melodies over the dully repetitive Alberti bass (so named because of the fondness of the eighteenth-century Italian composer Domenico Alberti for a bass line made up of broken chords), and ended by simplifying things so much that one could barely tell the amateur composer from the trained professional. No wonder Bach's death was greeted in many quarters with a sigh of relief. It took a couple of generations before the idea of sonata form gave serious-minded composers something solid to chew on, and new complexities arose that allowed music once again to become a profound matter and to feed the intellect as well as the fancy.

In nonhistorical terms, which is probably the best way to look at a great composer, we can say that Bach was a composer who worked within a closed
Hans Bach (left), born in 1550, was one of the earliest of the musical Bachs, though his exact relationship to Johann Sebastian is unknown. Johann Ambrosius (center) was J. S. Bach’s father, and the greatest Bach himself, as painted in 1750, is at the right.

system of forms, styles, and musical possibilities. He did not invent different kinds of music; he developed, perfected, arranged, and recombined. In Bach’s system virtually everything was already given. He inherited fugue, the dance forms, the concerto, the French overture, the Italian sinfonia, the prelude, fantasia, and toccata, the church and chamber sonata, the motet, the cantata, the oratorio, and a body of chorales, melody and text, which were the common working property of all Lutheran church composers.

There are few works of Bach that, in terms of form and medium, did not have antecedents in the music of the previous hundred years. The extended variation form of the “Goldberg” Variations, for example, was preceded by similar works by Buxtehude and possibly others. The orchestral suites were written after French and Frenchified-German models, such as those by J. K. F. Fischer. The solo violin sonatas were antedated by a passacaglia for solo violin by H. I. F. Biber. The Brandenburg Concertos were adaptations of the Italian concerto grosso. The keyboard suites, organ preludes, fantasias, and toccatas were all, as forms, in common use. Even The Well-Tempered Clavier had its predecessors: a set of suites by Pachelbel and the Ariadne Musica of Fischer. Only the pieces for unaccompanied cello and the Inventions for clavier call to mind no similar works prior to Bach.

And, it must be emphasized, Bach used these given forms essentially as they were. What he accomplished was the internal perfection of each of them, and the interpenetration of forms and media. About the former, it is sufficient to say that probably never before (or since) had a contrapuntal genius the equal of his existed. He brought to everything he touched an understanding of the inherent possibilities, a maximum use of the potentialities of the material, that was so much greater than that of his predecessors and contemporaries that the majority of the latter did not even understand what he was doing. As examples of the latter, one may cite Bach’s adaptation of the French overture, essentially an orchestral form, to the harpsichord (Partita No. 4 in D Major, BWV 828; Partita in B Minor, BWV 831), and even to the sacred cantata (Cantatas 61 and 119); his adaption of the concerto grosso to the solo harpsichord (Italian Concerto); his trio sonatas for organ solo; and his reorchestrated transfer of whole movements for secular concertos to sacred cantatas. Bach used fugue and dance rhythms in virtually all media, and continually found aspects of composition that could profitably be transferred from one medium to another. What it all amounted to was a virtual exhaustion of the musical possibilities that he had inherited and that, taken together, constituted the music of the high Baroque.

WHY do we listen to Bach today—and how? That is a complex question. Obviously, we are happy to listen to the music of any great composer, and Bach is assuredly a great composer. But the particulars of the situation demand explanation. Most of the composers whose music makes up the standard performed and recorded repertoire are products of the later eighteenth and nineteenth centuries, which is to say that their music shares, to a greater or lesser degree, the characteristic texture of accompanied melody. The man who has just recently come to classical music through, let us say, Rimsky-Korsakov’s Scheherazade has no more notion of polyphony (for there is none in Scheherazade) than a tenth-century man whose musical experience has been limited to unaccompanied chant. Of course, there is polyphony in the music of Haydn, Mozart, Beethoven, and Brahms. But the difference is a great one: in Mozart, polyphony is a device to be used at such times as the
composer determines; in Bach, polyphony is the entire fabric of the music. Standing, as he does, at the close of the great polyphonic period of music, Bach, who was for his contemporaries no door to the future, is very much our door to the past. In listening to Bach today, then, we must listen in a different way than we do to the composers who succeeded him. This "polyphonic listening," paying nearly equal attention to two or three or even four things going on simultaneously, may seem strange and difficult to those who have never done it (and, conversely, the very mention of it may seem elementary to those who have long ago mastered it), but it is the vital, necessary heart of any sort of appreciation of Bach's genius, and, of course, the key to the accomplishments of his contemporaries and predecessors.

We listen to Bach today because he was probably the greatest master of polyphonic writing the world has ever known. We listen to him for the characteristic pungency of his fugue subjects and the brilliance and excitement of their realization and development. We listen to him for his flowing, lyrical melodies and his always fascinating and often moving contrapuntal weaving of the melodies and counter-melodies into a harmonic and satisfying whole. We listen to him for his daring flights of virtuoso writing and for his imaginative painting in pure instrumental colors. We listen to him for his religious interpretations, his musical commentaries on religious texts, and his striking musical portrayals of religious referants. We listen to him for his concentration and pithiness, for his seriousness, his ingenuity, and his sense of humor. And so much more.

How we listen to Bach is a problem more of our own circumstances than of his. We must, for example, learn to accept the instrumental sounds of the eighteenth century: the small orchestra, the high trumpets, the Baroque organ, the harpsichord, the clavichord. Bach (late in his life, to be sure) knew the piano, but it does not follow from that that we may listen to his keyboard works exclusively on the piano; the special characteristics of the other keyboards are too intrinsically a part of his music. And we must scale down our hearing (our other ears have been stretched by too much sound) to hear his music in proper sonic perspective.

We must scale down our hearing temporally too. A chorale prelude or a prelude and fugue are, for Bach, complete, intensely concentrated works, and nothing could be more preposterous than to listen to the six English Suites or the forty-eight preludes and fugues at one sitting as if each of the six or the forty-eight were merely a movement of a larger, all-encompassing work. Bach demands concentrated listening. We cannot, as with many a later, longer work, turn our thoughts elsewhere with the idea that the music will, at the crucial point, call attention to itself and pull us out of our reverie. With Bach, if you haven't heard the whole thing, you've missed it.

A more severe problem arises from the fact that we, as an audience, do not have the same religious and musical background as a Leipzig church congregation of 1740. We do not know the chorale melodies and texts by heart. We do not immediately understand the religious referants, nor are we in any position to hear, without some guidance, a bit of religious musical symbolism—for example, the continual use of a drop of a seventh in the bass of the chorale prelude Durch Adams Fall (Through Adam's Fall, BWV 635). That drop is not in there for musical reasons (though music is made out of it), but for religious reasons: it is a musical symbol of the Fall itself. Though Bach did not make use of religious symbolism in all his sacred works, he did in a great many. It is not impossible to appreciate such works without knowledge of the symbolism, but we should be aware that it may well be there, and that seems inexplicable from the point of view of pure music may have a simple extra-musical explanation.

**ANYONE who intends to talk Bach (or even to talk back to someone else who is talking Bach) might as well familiarize himself right from the start with at least one small and easily wielded tool of musicology. Bach wrote a lot of music, a lot of it in the same forms and for the same instruments. It is often not sufficient merely to indicate the piece you mean by key signature alone, and that is why you will almost always find, in references to Bach's music, the codes BWV or S, followed by a number, as well. Very simple: BWV means Bach Werke Verzeichnis, German for Catalog of the Works of Bach, and S refers to Wolfgang Schmieder, who compiled it. The number (either one) corresponds to the number of the work in the Schmieder catalog. Don't hesitate to use them yourself; that way, even though you may not know what you are talking about, you will at least know which.**
years of Bach's life, in which he wrote such major extended works as *The Art of Fugue* and *The Musical Offering*. This is a convenient way to break things down, but it tells us little about Bach's music except the externals. Bach wrote cantatas in Leipzig because his position demanded them; he wrote no religious music at Cöthen because his employer was a member of the reformed church, which limited the musical content of church services to an occasional pious hymn, but that same employer required secular instrumental music for his entertainment. Of Bach's musical development, of his (as in Beethoven)'s "spiritual" development, these "periods" tell us nothing. There *is* an early Bach style: it is characterized by a great fecundity of ideas rather than the economical use of a few, a looseness and lengthiness of structure, and the occasional obvious influence of another composer. But that's *all* it is—an early style. Once Bach matured (which he did at Weimar, if not before), his development is by no means easy to spot. Many of his works are undated on the manuscript, and scholarship has often moved their estimated date of composition backwards or forwards ten or a dozen years, and then, perhaps, reversed itself later on. The point is that Bach reached a plane of mastery relatively early in his compositional career and simply remained on it, inventing different problems and solving them with relatively equal ease throughout the rest of his life. It is almost impossible, on internal evidence alone, to assign a given work to a given point in his development. Beethoven was speaking of relative importance when he said that Bach's name should not be *Bach* (brook) but Meer (ocean). But the remark is true also in the sense that a brook is the continuous process of becoming something else, and an ocean is simply there, in all its vastness.

If the usual entry to Beethoven's musical world is through the massive portals of one of his middle-period masterpieces, most people seem first to approach Bach through a side door. It is exceedingly doubtful today that anyone would be *first* overwhelmed by the Mass in B Minor, for instance, and from that go on to explore the rest of Bach; probably he wouldn't even make it through the *Kyrie* of that work. More likely, one has first tasted Bach in a watered-down form: an unidiomatic, bloated transcription for orchestra, a drier, more classically objective transcription for strings, an attractive-sounding transcription for guitar. A few have of late come to Bach through the medium of the Moog, but most of them have stopped right there and, in a classic case of mistaking the lees for the wine, have listened no more to Bach, but follow the Moog instead, wherever its errant patch-cords lead. Those who have found Bach directly have almost invariably done so through the Brandenburg Concertos, masterpieces unquestionably, but by no means the whole of the composer.

**Well**, leaving the Brandenburgs aside, where *should* one begin the exploration of Bach? It is tempting to be pedagogical and recommend some piece that will offer, say, pure three-part counterpoint, unencumbered by texts, orchestral colorations, continuos, dance references, or even fugue. Such a piece would accustom one to polyphony with a minimum of fuss, and make one understand right away that harmony in Bach, while it is certainly part of the game plan, is always realized by the coming together of two or more independent melodic lines, and is not to be found except as a *result* of such counterpoint. Such pieces do exist. One of them is the Trio Sonata No. 5 for organ (*BWV 529*), and besides satisfying all the above requirements, it is a little gem of a piece, quite progressive in feeling.

A somewhat different choice might well be the famous chorale prelude, also for organ, *Wachet auf* (*Sleepers Awake, BWV 645*). It too offers pure three-part counterpoint, but it also calls into play another aspect of Bach: the religious referential aspect. For Bach himself told his students that they must play such chorale preludes in accordance with the words and meaning of the chorale, even though no words are sounded (the prelude is a purely instrumental work). Bach's scores have few playing directions; the interpretation (tempo, dynamics, register, articulation) is left to the informed discretion of the performer. What the performer (and the informed listener) must know, then, is the chorale text, and, in the case of many of the chorale preludes, which verse of the chorale text the composer meant his prelude to represent or comment on. In the case of *Wachet auf!*, which is one of the six Schübler Chorales, the appropriate verse is not that of the title, with its urgent message, but the second verse, which begins, "Zion hears the watchman calling; and on her heart deep joy is falling. She waits and watches. . . ." It is far from a "wake-up" mood. The Schübler Chorales are all transcriptions, by Bach himself, of vocal movements from his cantatas, and the music of the chorale-prelude *Wachet auf!* is the same as that sung in the fourth movement of the cantata *Wachet auf!*, *BWV 140*. A performance, then, that attempts to instill a mood of urgency into the music is highly suspect. This gives some idea of the fascinating complexities in Bach's music which can be explored by those interested in them. Of course, it is possible to enjoy *Wachet auf*! without knowing anything about it, but the reader should be aware that there is something there to explore, should he wish to.
AN INTRODUCTORY SELECTION OF BACH CANTATAS

Almost everything that is Bach can be found in the cantatas

The Thomasschule and Thomaskirche in Leipzig, for whose use Bach composed the greater part of his sacred cantatas. It was his job to write, rehearse, and perform a different cantata each week.

- Christ lag in Todesbanden (Christ lay in death’s dark prison, BWV 4). Probably an early work, but of masterly craftsmanship, it is a strict chorale cantata, meaning that each of the seven stanzas of Luther’s Easter Hymn is set, and each setting is a variation of the same chorale melody. There are no recitatives and no arias, but the contrapuntal ideas are astonishing and the emotional intensity powerful.
- Liebster Gott, wann werd' ich sterben (Dearest God, when wilt Thou call me, BWV 8). The subject is death (as it is in many of the cantatas), but the attitude is anything but a mournful one. The opening chorus of the cantata, one of the lightest, most lilting in the entire Bach repertoire, is striking in its resemblance to the Viennese waltz of over a hundred years later (though it is written in 9/8 time).
- Jauchzet Gott in alien Landen (Praise God in all lands, BWV 51). This is an enormously exciting cantata for solo soprano with trumpet obbligato, comprising an opening aria, a recitative, a second, more lyrical, aria, a chorale, and a concluding Alleluia, the finale a virtuosic workout for the best of sopranos (and the best of trumpeters).
- Schlage doch, gewünschte Stunde (Strike, oh strike, awaited hour, BWV 53). Another sort of cantata entirely, this single aria for alto solo, strings, and two bells is quietly lyrical and moving, and, if well sung, expressive beyond words.
- Sie werden aus Saba alle kommen (They shall come out of Sheba together; BWV 65). This is a cantata for the feast of Epiphany and takes as its subject the journey of the Magi to Bethlehem (with more than a hint of comparing it to the soul’s journey to God). Its opening chorus, beginning with the rising melody of two horns over the bass, then joined by the violins, then by the voices, entering one by one beginning in the bass with the same rising melody in imitation of one another, is possibly one of the most beautiful in all music.
- Jesu, der du meine Seele (Jesus, who my soul hast rescued, BWV 78). The work opens with a magnificent chorale-fantasie, but the peak of enchantment is the following soprano and alto duet on the text, “We hasten with feeble but eager footsteps...” Bach’s step is very light and dancing, not at all feeble, the organ bounces along like some heavenly calliope, and the vocal duet sounds at times like Dvořák transfigured.
- Gottes Zeit ist die allerbeste Zeit (God’s time is the best time, BWV 106). Also known under the name Actus Tragicus, this is another early cantata, literally crammed with musical ideas, religious references, plays on words and on music. For example, in the midst of a fugal chorus the voices sing the words “Du musst sterben” (Thou must die), and as they do, the recorders and gambas play the melody (in counterpoint) of the hymn Ich hab’ mein’ Sach’ Gott heimgestellt (I have cast all my cares upon God). The text is not heard, mind you, only the melody, which would, however, have been immediately familiar to a churchgoer of Bach’s time, and the words would sound in his mind, producing a moving counterpart of melody, of text, and of religious ideas. Similarly, in the following duet, the bass sings, “Today shalt thou be with me in Paradise,” and at the word “Paradise,” the alto enters with the chorale Mit Fried’ und Freud’ ich fahr’ dahin (In peace and joy I now depart), again in counterpoint to the bass melody, which continues underneath.
- Wachet auf! (Sleepers Awake, BWV 140). I have mentioned this cantata in connection with the chorale-prelude of the same name. Besides its fourth movement, which is the vocal setting from which the chorale-prelude was drawn, the cantata offers the same melody in two other settings: the opening chorus and the closing chorale. The three are totally dissimilar, except for the connecting melody, and together form an object lesson in the imaginative use of basic material.
- Phoebus and Pan (BWV 201). This is, of course, a secular cantata, one in which Bach, in the manner of Wagner in Die Meistersinger, hit back at one of his critics. It employs (for Bach) a huge orchestra, including flutes, oboes, oboe d’amore, strings, continuo, three trumpets, and timpani, and its opening Chorus of the Winds is exhilarating music.
- Weichet nur, betrübt Schatten (Vanish now, ye winter shadows, BWV 202). Here we have a secular cantata of another sort, meant for the domestic celebration of a wedding. The cantata is scored for solo soprano and small chamber group, and the sensuousness of its melodies for soprano and oboe sets it apart from most of Bach’s other work. Lucky couple, to have begun married life to the accompaniment of such music!
But suppose one wishes the initial exposure to Bach not to teach, but to astonish. Such an introduction might easily come through one of the cantatas—say, *Gott der Herr ist Sonn' und Schild*, BWV 79. It is a piece that I have heard referred to as “Bach’s Ninth Symphony.” It unquestionably captures the listener right from the beginning, with its festive and tumultuous opening sinfonia, featuring two horns obbligato, continually climbing into the high register to sound the glory of the Reformation. And the entry of the chorus signals a moment of grandeur on a level with similar moments in Haydn, Beethoven, and Mahler—incredible, the excitement Bach could stir up with no more than a chorus and a small orchestra of flutes, oboes, horns, strings, timpani, and continuo! The work is a superb introduction not only to Bach but to Bach’s cantatas.

It would probably not be an overstatement to say that almost everything of Bach can be found in the cantatas: nearly every musical form and style he had at his disposal, nearly every instrument or combination of instruments, every sort of vocal writing, every type of expression. And what is a cantata? A cantata is a work, usually in several movements, for one or more voices with instrumental accompaniment. Cantatas may be sacred or secular. Bach’s sacred cantatas formed part of the Lutheran church service, and their texts were based on the gospel, or lessons, for the day. Cantatas may have movements of operatic-like recitative and aria, or they may be varied, but strictly controlled, settings of a single hymn. They may employ multiple soloists, a full chorus, and an orchestra with trumpets and timpani, or one solo voice and continuo—or anything in between. They may have extended, purely instrumental opening sinfonias, or they may get immediately into the matter at hand. Bach’s sacred cantatas invariably ended with a simple chorale in which the congregation joined. Cantatas may be great or tiny.

We don’t know how many cantatas Bach wrote. Some estimate the number at about five hundred, about 225 of which have survived. Though one may mourn what is missing, those that exist form an almost matchless treasure to explore, and those that are as yet not on records constitute the largest collection of unrecorded great music currently known. (That fact might be good to remember the next time someone comments that all the worthwhile music has already been recorded and there is nothing left to do.) Bach’s cantatas may have a certain variability in immediate interest, if not in quality, but there is probably not one of them that cannot offer a satisfying repast to a musically hungry man.

Beyond the cantatas lie the great, large-scale works, the Mass in B Minor, the *St. Matthew* and *St. John* Passions, the Christmas Oratorio (actually a cycle of six individual cantatas), and the smaller-sized Easter Oratorio and *Magnificat*. The last is an easily approached work, tremendously exciting in its rhythmic vigor, the high, screaming trumpets, and the thundering timpani of its choruses. The Easter Oratorio is somewhat similar. The large works, however, though indispensable to any real collection of the music of Johann Sebastian Bach, are things to be worked up to and savored when one has the experience necessary to appreciate their subtleties and their concentration of material over the longer time span.

Bach’s organ works can be divided, like his cantatas, into sacred and secular. A primary difference, again, is that of text: the secular works, of course, have none, but are abstract pieces of purely musical significance; the sacred works are invariably based on some chorale tune, and have reference to the
words of that chorale, either just in the overall mood of the piece, or sometimes in the specific musical illustration or symbolization of an element of the text. Therefore, though the name Toccata and Fugue tells us only the form and style of the work that bears it, the name *Nun komm', der Heiden Heiland* (Now come, Saviour of the Gentiles) tells us something about the emotional content of the work as well.

The forms of the secular works are the standard ones of the day: prelude, fantasy, toccata, fugue, passacaglia, trio or trio sonata, canzona, etc. There is also a set of six concertos transcribed for organ solo by Bach from the orchestral concertos of various composers, including Vivaldi. The listener should be aware that the terms fantasy and toccata, particularly the latter, are indications of virtuoso fireworks rather than forms per se.

Apart from the Trio Sonata No. 5 mentioned earlier, a good sampling of the secular organ works would include the massive Passacaglia and Fugue in C Minor (BWV 582), the Toccata, Adagio, and Fugue in C Major (BWV 564), the Toccata and Fugue in D Minor (BWV 565), and the Fantasy and Fugue (one of Bach's most satisfying fugues) in G Minor (BWV 542). It cannot be emphasized too strongly, however, that the only way to really hear these works is as played on a Baroque organ, not in a transcription for piano or symphony orchestra or on a nineteenth-century organ.

The forms of the sacred organ works are all tied to the chorale, and they include the chorale-prelude proper, the chorale fantasy (in which the chorale theme is frequently broken up and subjected to virtuoso treatment almost in the manner of a secular toccata), the chorale fugue (in which the first phrase of the chorale is made to serve as a fugue subject, after which the entire melody is either presented as a counterpoint to the fugue itself or presented phrase by phrase in a series of short fugues), and the chorale variations or chorale partitas (in which the chorale becomes the theme of a set of variations, which may be purely musical reworkings or may involve musical-religious commentary). As examples of these four forms one may cite, for the first, any piece from the *Orgelbüchlein* (BWV 599-644); for the chorale fantasy, the *Fantasia super Komm, heiliger Geist* (BWV 651), in which the chorale tune is presented in the pedal (bass) under the rapidly moving upper voices; for the fugue, *Vom Himmel hoch* (BWV 700), a four-voice fugue with the full chorale melody presented in the pedal part; and for the variations, the Canonic Variations on *Vom Himmel Hoch* (BWV 769), an extraordinarily beautiful and elegantly complex work of Bach's maturity.

As basic works in a Bach library, the following sacred organ works should be included: the *Orgelbüchlein* (BWV 599-644), a collection of forty-six chorale preludes of greatly varying character, almost all of which, however, present the chorale tune in the uppermost voice where it can be easily distinguished by the ear; and the Schübler Chorales (BWV 645-650), six chorale preludes based on cantata movements.

That part of Bach's output that is called clavier music was written for the harpsichord, the clavichord, the pedal harpsichord, and, to a certain extent, the piano. Which instrument Bach had in mind for which work, however, is frequently not clear, and it is also frequently not to the point. The majority of the works would have been played on whatever keyboard instrument (the word "clavier" encompasses all of them except the organ) was available, the performer getting out of the music whatever he could, considering the strengths and weaknesses of the instrument chosen. All the clavier music is secular, and there is a great deal of it: suites, preludes and fugues, variations, fantasies, toccatas, inventions, solo concertos, etc. It is also exceedingly probable that The *Art of Fugue*, despite the fact that it was published in open score (each voice on a separate staff with no instrumental indications) is a keyboard work, and that the three- and six-part *ricercari* from The Musical Offering are also keyboard works possibly composed with the piano in mind.

An exploration of the clavier works might well begin with the *Italian Concerto* (BWV 971), a straightforward and attractive adaptation of the concerto grosso idea to the solo harpsichord, continue with the most dramatic of all the keyboard works, the Chromatic Fantasy and Fugue (BWV 903), and go on from there, perhaps, to the Partitas (BWV 825-830), suites of dance movements, each suite begun by a prelude in a different style. The Inventions are better to play oneself than merely to listen to, and the "Goldberg" Variations, though certainly one of Bach's crowning achievements and not just a work for connoisseurs, is music to listen to when one already knows something about eighteenth-century clavier music. The *Well-Tempered Clavier* is, of course, basic to any Bach collection, but one should investigate it gradually, one prelude and fugue at a time (the "Goldberg" Variations, interestingly, were also probably listened to, in Bach's lifetime, one or two variations at a sitting, and not the entire work together).

Bach's orchestral works include the six Brandenburg Concertos (BWV 1046-1051), the four Suites for Orchestra (BWV 1066-1069), concertos for one and two violins, and those for one, two, three, or
four harpsichords and orchestra. It is not a very large output compared with, say, Vivaldi’s, or even with Bach’s own output of cantatas, but that fact is simply a reflection of Bach’s circumstances: he was, for most of his life, a composer in the employ of a church, and the demand for purely orchestral music from his pen was minimal. Even these works are not completely independent of one another. All three of the violin concertos (A Minor, BWV 1041; E Major, BWV 1042; and D Minor, for Two Violins, BWV 1043) were later reworked into harpsichord concertos (No. 7, No. 3, and the C Minor Concerto for Two Harpsichords, respectively). The sixth of the harpsichord concertos is also a rewrite of the Fourth Brandenburg Concerto, and so on. There are even exchanges between the concertos and the church cantatas. Nevertheless, Bach’s orchestral works are still among the greatest such works of his time.

Assuming that one really knows the Brandenburg Concertos, one should first explore the Concerto in E Major for Violin (BWV 1042) and the Concerto for Two Violins (BWV 1043). After that, the Suites, preferably No. 2 (BWV 1067) for solo flute and orchestra, and No. 3 (BWV 1068), with its exciting large-orchestral sounds and the famous Air (later known in transcription as the “Air on the G String,” which it originally was not). The first of the harpsichord concertos in D Minor (BWV 1052) is the most important, and of the multiple harpsichord concertos, the one in C Major for three harpsichords (BWV 1064) is easily the most immediately attractive, a noble and joyous work.

One uses the term “chamber music” in a broad sense with Bach to include not only works for two or more instruments, but pieces for solo violin, cello, or lute as well. There is even a sonata for unaccompanied flute (BWV 1013), and quite a marvelous little work it is, too, considering the limitations of the medium. Bach’s important chamber music, though, consists of the six Sonatas for Violin and Clavier (BWV 1014-1019), the Sonatas for Flute and Clavier (BWV 1020, 1030-1035), of which several are no longer believed to be by Bach, the six Sonatas and Partitas for Unaccompanied Violin (BWV 1001-1006), and, perhaps, the six Suites for Unaccompanied Cello (BWV 1007-1012). Of these, the works involving clavier are easily approachable, the Cello Suites less so, and the Violin Sonatas and Partitas least of all. This may seem in almost inverse order to their fame, but there is a reason. Polyphony is the constant fabric of Bach’s music, and when the polyphony is explicit it is usually easy enough to hear and assimilate. But polyphony is something that must be forced on a solo violin or cello. Neither instrument is constructed for the presentation of two or three simultaneous melodies, and the idea of writing such music for such an instrument is a very Baroque one indeed. Bach, needless to say, succeeds superbly, but the movement of voices is suggested or implied rather than explicitly stated, and the music relies on the listener to make the connections that the instrument itself cannot. The violin pieces especially are often listened to as backbreaking tests of virtuosity, but that is not really what Bach intended them to be.

In approaching Bach’s chamber music, then, one might well begin with one of the Sonatas for Violin and Clavier—No. 3 in E Major (BWV 1016) is a particularly satisfying one, with a marvelous dancing fugue as its second movement. Of the Flute Sonatas, the one in B Minor (BWV 1030) is a hauntingly beautiful work, and it is assuredly by Bach. Then try one of the Cello Suites, and finally the works for unaccompanied violin. The First Sonata (BWV 1001) contains a fugue as the second movement, and the Second Partita (BWV 1004) concludes with the famous Chaconne, which needs near-sorcery to bring off successfully. Beyond these four sets of pieces there are many chamber works worth exploring. I mention especially three Sonatas for Viola da gamba and Clavier (BWV 1027-1029), the Suite in E Minor for Lute (BWV 996), and an earlier version of one of the viola da gamba sonatas, the Sonata in G Major for Two Flutes and Clavier (BWV 1039). There is one other very great chamber work of Bach, and that is the Trio Sonata in C Minor that appears as No. 8 of The Musical Offering.

The two works of Bach’s last years that are often separated from all the rest of his works are The Musical Offering and The Art of Fugue. Both works were prepared for publication by Bach himself and both were published in open score, The Art of Fugue with no indication of instrumentation, The Musical Offering indicating flute, violin, and continuo for the Trio Sonata, and only a rare mention of flute, or violin, or two violins elsewhere. They have both been performed in many different ways; string orchestra, string quartet, organ, chamber ensemble, and piano solo have been used either for the whole works or parts of them. But neither work is for beginners in Bach; they should rather be considered ultimate centers of musical gravitation. For, when one has heard, for example, the Six-Part Ricercare from The Musical Offering, one has heard what is probably the greatest fugue Bach ever wrote, and one of the greatest products of an entire era and style of music. It might not be too much to call it the culmination of the polyphonic era. Bach died three years after it was written, and music after him became quite a different thing.
ALTHOUGH noise-reduction devices have been around almost as long as high-fidelity components (the H. H. Scott three-tube dynamic noise suppressor was available in the early Fifties), they faded from the home audio scene as the improved noise levels of program material made them less and less necessary. However, a number of factors—particularly the need in recording studios to keep noise down through the several tape transfers involved in most recording—have recently brought about a resurgence of interest in the elimination of noise. Things began happening when Ray Dolby developed a sophisticated noise-reduction system for studio recording that was demonstrably better than
anything else available. Henry Kloss, then the "K" in KLV and now the president of Advent, convinced Dolby that his approach should be modified as soon as practicable for use with home recording equipment, thus enabling recordists to use slower tape speeds even for their most critical recordings.

It was not until the cassette explosion, however, that the modified Dolby "B" noise-elimination circuit really came into its own. Suddenly, because of the inherent hiss problem of the slow-speed, narrow-track cassette, noise reduction was big business and everyone wanted to get into the act. The Dolby products discussed and tested below are the forerunners of the Dolby deluge. The separate Dolby units will probably disappear from the marketplace in four or five years as their facilities are built into stereo receivers and a host of other equipment.

But what about the other noise-reduction devices? For reasons that Larry Klein goes into on page 67 of this report, they also have their place, and we have therefore tested several samples of non-Dolby noise reducers.

### The Dolby Noise-Reduction Units

The Dolby noise-reduction system, in the form of add-on units for use with tape recorders in home music systems, has been on the audio scene over a year now. We have already reported on the first two models to appear: the Advent 100 (October 1970) and the Advocate 101 (March 1971). Since then, other Dolby units have reached the market, and we have tested them for this report. For reference, a current production unit of the Advent 100 was also included in the test program.

The basic principles of the Dolby noise-reduction system have been well publicized. Since all consumer Dolby circuits are built under license from Dolby Laboratories, their operating levels and frequency-response characteristics are closely controlled. As a part of our test procedures, we verified the compatibility and interchangeability of all Dolbyized recordings by measuring the overall record-playback frequency response with the Advent 100 in combination with each of the other units, alternating their recording and playback functions.

If all Dolby units are so much alike in performance, then what differences can one expect to find among the various brands and models already available and others shortly to appear? The main differences are in their operating flexibility, their ease of calibration, ability to handle microphone inputs and mix them with line sources, provision for monitoring from the tape while recording, physical packaging and styling, and, to a slight degree, their internal noise and distortion.

A basic stereo Dolby unit has a pair of identical signal-processing circuits in each of the two channels. The two circuits can be switched to either the record or playback mode, providing high-frequency boost at low levels in record and a complementary high-frequency cut during playback. This system of switching the same two circuits from record to playback is perfectly adequate in the case of cassette recorders—and two-head reel-to-reel recorders as well—which lack the ability to record and play back simultaneously for off-the-tape monitoring. Included in this "basic Dolby" category are the Advocate 101 previously mentioned, the Concord DBA-10, and the Teac AN-80, which was not included in this test series.

The more elaborate ("non-basic") Dolby units are the Advent 100 and the Teac AN-180, and they are almost identical in their operating features. (By the time this report appears the Advent 101 will have been superseded by a new model, the 100A, which differs from it in some details.) Both of these units have four separate Dolby circuits and can simultaneously record and play back both channels with Dolby processing. This permits input/output signal comparison by monitoring from the tape with a three-head stereo machine. The units also have tape-monitor switches and microphone preamplifiers with mixing facilities for microphone and line inputs.

With the untested Advocate 101 and Teac AN-80, the two channels can be independently switched to recording or playback modes. This permits simultaneous operation of both functions, and therefore off-the-tape monitoring is possible for mono recordings made on a three-head recorder. These units also have a recording-check switch for off-the-tape stereo monitoring with three-head stereo machines, but the monitor signal does not pass through the Dolby playback circuits and therefore sounds rather "bright." The Concord DBA-10 is similar to these two, but it does not have independent control of the two chan-

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### Comparative Test Data for Dolby B Units

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<th>Maximum playback output* (volts)</th>
<th>Clipping output (volts)</th>
<th>S/N ratio* (dB)</th>
<th>Rec.-play distortion* (per cent)</th>
<th>Rec.-play frequency response** (dB)</th>
<th>Playback level adjust.</th>
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<td>$250.00</td>
</tr>
<tr>
<td>Concord DBA-10</td>
<td>560</td>
<td>30</td>
<td>0.55</td>
<td>1.75</td>
<td>60</td>
<td>0.32†</td>
<td>+0.5, -2.5†</td>
<td>yes</td>
<td>13½ x 3 x 7¼</td>
<td>$129.95</td>
</tr>
<tr>
<td>Teac AN-50</td>
<td>105</td>
<td>67</td>
<td>0.52§</td>
<td>2.10</td>
<td>69</td>
<td>0.15†</td>
<td>+0.5, -2†</td>
<td>no</td>
<td>5½ x 3 x 8½</td>
<td>$49.50</td>
</tr>
<tr>
<td>Teac AN-180</td>
<td>500</td>
<td>82 (Mike 0.19)</td>
<td>1.28</td>
<td>2.50</td>
<td>68</td>
<td>0.14†</td>
<td>±1</td>
<td>yes</td>
<td>16½ x 5½ x 11½</td>
<td>$299.50</td>
</tr>
</tbody>
</table>

*Referred to Dolby level (0 dB).
**20 to 15,000 Hz over a range of 0 to -40 dB, referred to the 400-Hz level.
†Playback only. Unit cannot operate in stereo record and playback simultaneously.
nels' operating modes or recording-check switch facilities.

All of these units have controls and meters for recording and playback-level calibration. Before using a Dolby system, a standard Dolby-level tape or cassette supplied with the unit is played on the recorder with which it is to be used, and the calibration adjustment for each channel is set for a reference meter reading. A standard recording test tone, generated by an oscillator in the Dolby unit, is next recorded on the tape to be used for the final recording, and then it is played back. The object is to get the oscillator-generated test tone that has just been recorded to match the playback level on the test tape. This is done by adjusting the recording-level controls of the tape machine. It is just this standardization that not only makes it possible for the Dolby devices to operate so effectively, but also permits tapes recorded on one Dolby-adapted unit to be played back on any other.

Once the calibration adjustments have been made, they need not be disturbed unless a tape with very different characteristics is used.

The Advent unit has two small meters for calibrating the two channels. The Concord DBA-10 and Teac AN-180 have two much larger meters, similar to those used on many cassette recorders. The Teac AN-80 and Advocate 101 use a single meter with a switch to connect it to either channel.

When recording stereo-FM broadcasts, the presence of the 19-kHz multiplex pilot signal in the tape output of the receiver or tuner presents a potential problem with Dolby units. Although some FM units have this signal filtered out, many do not. Since it is well above the audible range for most people, the 19-kHz signal is usually not noticed, but its presence could inhibit Dolby processing on low-level program material. All consumer Dolby units therefore incorporate very sharply tuned rejection filters to remove the 19-kHz frequency without affecting frequencies below 15,000 Hz. On the Teac AN-50 and AN-80 models, the filter is always in the circuit, but the Advent, Concord, and Teac AN-180 units have switches to disable it. Either arrangement is satisfactory, since in no case do the filters have any audible effect on the signal.

Teac's lowest-cost unit, the AN-50, is generally much like the AN-80 and DBA-10 already described. It is very low in price, and is intended only for use with the Teac A-23 and A-24 cassette decks. It has no metering facilities, no playback-calibration adjustments, and does not come with test tapes. Its input sensitivity is matched to the output levels of the two Teac recorders for which it was designed. Although someone with a few instruments and reasonable technical facility could match it to some other recorders (not all, however, because of signal-level matching problems), Teac emphasizes that its specifications apply only when used with their machines. The recorder's level meters are used to set recording calibration with a test tone which the AN-50 provides. In all other respects, it performs like the other units.

All the Dolby units have bypass switches for recording or playing tapes without Dolby processing. All of them interconnect with the associated amplifier and recorder in the same manner, with two pairs of jacks for connection to the amplifier's tape outputs and inputs, and two more pairs for the recorder's inputs and outputs.

The numerical data from our laboratory tests is presented in the accompanying table for ready comparison. The minor differences between the units' REC CAL voltage outputs and PLAY input sensitivities are not significant, since all (except the Teac AN-50) have a wide range of calibration-level adjustments. The low REC CAL output of the AN-50 is presumably compatible with the input requirements of its recommended cassette recorders. All the units had low (and inaudible) noise levels. Our unweighted wide-band measurements gave the worst possible figures. (Practically, the noise levels are better than the figures indicate because of the Fletcher-Munson effect plus the fact that our instruments respond to noise frequencies beyond the range of hearing.) Whenever possible, we measured the frequency response of the Dolby devices by putting a test signal through their RECORD circuits, feeding their outputs to their PLAY inputs, then reading the signal at their PLAY outputs. The calibration adjustments were set for the correct 0-dB meter readings, thus simulating a unity-gain, perfect tape recorder inserted in the signal path. (This is a legitimate technique, since we were interested in the performance of the Dolby units independent of the associated equipment.) In the cases of the Concord DBA-10 and the Teac AN-50, we had to measure record and playback response separately and combine them to derive a composite overall response curve. (None of the curves are shown since the deviations from flat response were not significant in any case.) Distortion measurements were made at the 0-dB level, through both recording and playback circuits, except for the two units mentioned above, on which we measured the playback distortion only.

**ADVENT MODEL 100**

- In our tests, the Advent 100 had a frequency response of 20 to 15,000 Hz ±0.5 dB and 0.15 per cent harmonic distortion at the standard Dolby level (0 dB). The record-playback signal-to-noise ratio was 67 dB for the line inputs. Noise contributed by the Model 100's microphone-input circuits depended to a great extent on the settings of the record-gain controls. Low settings, the noise was negligible. At high settings the signal-to-noise ratio degradation approached 10 dB. Obviously, microphones with a fairly high output would be advantageous for anyone planning to use the Model 100 for live recording.

Though our test was made on the Model 100, it will soon be replaced by the Model 100A. According to Advent, the two are quite similar electrically and physically. The 100A will have a somewhat better input-signal-to-noise ratio, lower distortion, less crosstalk, a higher output level, and increased input sensitivity. The most significant change, however, is in the addition of a MODE switch; this will permit Dolby-processed FM broadcasts to the Model 100A to be recorded directly to tape in equalized form at the same time as the signal is being processed with normal response. In other words, a Dolby-processed signal can be recorded on tape and then be de-Dolby-processed in subsequent playbacks, thus virtually wiping out, in one step, not only whatever noise there is in the FM broadcast, but the noise of the home tape recorder as well.
The Model 100A will not have built-in microphone preamplifiers, but will have two line inputs with mixing capabilities. An accessory stereo microphone preamplifier, the MPR-1, intended to plug into one of the line inputs, will be available for another $20. This is designed to take balanced mike-cable configurations and to be powered by an 18-volt output jack on the Model 100A. We were able to obtain an early sample of the MPR-1 for test, and found that it provided a 6-dB improvement in signal-to-noise ratio over the preamplifiers built into the Model 100.

CONCORD DBA-10

- The Concord DBA-10 is a compact device, fitted with walnut end pieces that give it a more finished appearance than the other units, all of which have simple metal dust covers. When its circuits were coupled with those of the Advent 100, the combined record-playback frequency response had a total variation of less than 3 dB from 20 to 20,000 Hz, effectively demonstrating the compatibility of different Dolby units. The harmonic distortion of the Concord, though slightly higher than that of the others, was negligible. The signal-to-noise ratio was 60 dB.

TEAC AN-50

- When we plotted the record and playback frequency responses of the Teac AN-50 separately, the composite response curve was within +0, -2 dB from 20 to 16,000 Hz (its fixed 19-kHz FM filter cut off sharply above that frequency). In combination with the Advent 100, the response was better than +1, -2 dB over that range, in either mode of operation. Obviously, the low price of the AN-50 was achieved by limiting its flexibility, but not its

Other Noise-Reduction Devices

The Dolby system is intended to be used both before and after the recording (or broadcast) process; it was not designed to remove noise already in the program material. There are other units, however, that were. Kenwood has developed a dynamic filter system which is offered in two models—the KF-6011 and the KF-8011—to attenuate noise from any source by as much as 15 dB. Unlike the Dolby system, special processing is not required at the point of recording or broadcast. The Kenwood De-Noisers use a broad "notch" filter (or several of them) whose attenuation (depth of notch) is varied by the level of the incoming signal in the frequency range covered by the notch. At normal program levels, the Kenwoods provide a flat frequency response. At a lower level (which is adjustable but is usually 40 to 50 dB below normal listening volume for best results), the filter begins to attenuate the high frequencies. The attenuation action becomes greater as the average signal level falls. During pauses in the program, when the background noise may normally be 50 to 60 dB below full volume, the de-noisers reduce noise by 10 dB or more.

Interesting as the actual measurements on these units were (see the detailed reports that follow), the real proof of their effectiveness was in their audible performance. They did a superb job of totally eliminating barely audible hiss with absolutely no effect on the audible frequency response of the program—with one exception: a solo voice or instrument against a quiet background that had a normally audible hiss level produced a noise "swish" as it came on and turned off the filters. When the program had considerable hiss (a weak stereo FM signal or a bad prerecorded tape, for example), the "swish" or modulation of the noise background became more noticeable. The Kenwood de-noisers are at their best with signals that are reasonably quiet to start with. They can make a good signal into a superb one (from the standpoint of noise) and a fair one into a pretty good one, but they cannot do much for a really noisy signal without some sacrifice of the high-frequency sounds in the program.

In any event, I would say that for the vast majority of the programs passed through the Kenwood de-noisers in the lab over a period of a couple of months, there was absolutely no hint of the units' action except for a truly total elimination of audible noise. After a period of use, a silent background begins to be accepted as the normal condition—but pressing the DEFECT button on the de-noiser quickly brings one back to reality!

From a listening standpoint, the KF-6011 and the KF-8011 were about equally effective. The additional flexibility of the KF-8011 gives it a clear advantage in a well-equipped system, particularly if tape recording is to be a part of its duties. Also, by careful adjustment of the various controls of the KF-8011, we were sometimes able to get better quieting of noisy programs with less loss of highs than we experienced with the simpler KF-6011. However, under most conditions, the two Kenwood units sounded exactly alike.

KENWOOD KF-6011

- The Kenwood KF-6011 has a single rejection filter centered at 7,000 Hz, but it is broad enough to reduce noise
performance. The distortion was close to that of the Advent, and the signal-to-noise ratio was 69 dB.

**The record-playback response of the AN-180 varied less than 2 dB overall from 20 to 20,000 Hz. Its multiplex filter, when switched in, cut off sharply above 15,000 Hz, with no effect on the lower frequencies. The AN-180, when used with the Advent 100, had less than 2 dB overall variation in response from 20 to 20,000 Hz in either mode of operation. Its distortion was a very low 0.14 per cent at the 0-dB level, through both the recording and the playback electronics, and its signal-to-noise ratio was 68 dB for the line inputs. The AN-180's microphone preamplifiers, like those of the Advent Model 100, varied in their noise contribution with the settings of the recording controls.**

substantially in the 4,000 to 15,000-Hz range. A **noise level control** adjusts the threshold level at which the circuits become operative. When set so that program peaks reach 0 dB on the 6011's meter, the notch action begins between –40 and –50 dB. By moving the slider control, the de-noising threshold can be moved up all the way to normal program levels if desired.

A single switch turns on the power, and in its fully clockwise position bypasses the filter circuits. This provides a most dramatic way to demonstrate the unit's effectiveness. Since the KF-6011, like the Dolby units, goes into the tape-in/tape-out path of an amplifier or receiver, it has four jacks for the regular tape-recorder input and output connections. The KF-6011 input can be switched to the tape-recorder output by a front-panel monitor switch, for "de-noising" the tape playback. If a second tape recorder playback is passed through the amplifier's AUX inputs, programs can be dubbed from it through the KF-6011 to reduce the noise of the final recording. There is also an input-level control, a two-position switch in the rear of the unit. The Kenwood KF-6011 measures 5 1/2 inches wide, 5 1/2 inches high, and 12 3/16 inches deep; it weighs 6 pounds, 10 ounces. Price: $79.95.

In our tests, the frequency response of the KF-6011 was almost perfectly flat (±0.5 dB) from 20 to 20,000 Hz at levels down to –20 dB. It began to show small irregularities at –30 and –40 dB, but was still within ±2 dB over the full range. At –50 dB the noise-rejection notch suddenly appeared, about 15 dB deep at 7,300 Hz. The same response curve was plotted at –60 dB, but at –70 dB the bottom of the notch was in the background noise level (about –79 dB). The KF-6011 had a gain of 1.0 (a switch in the rear inserts a 10-dB attenuation for use with high-level input sources). The output noise was 76 dB below 1 volt, and distortion was a negligible 0.19 per cent at 1 volt and only 0.28 per cent at the rated 2-volt output.

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**The Technical Editor comments on Compatibility and Redundancy**

As is evident from the accompanying reports, all the tested noise-reduction devices perform their assigned tasks with competence. However, it is also evident that the Dolby noise-reduction technique has the jump on its competitors. At present there is a host of "outboard" add-on units available, and we are shortly going to see not only dozens of new Dolbyized tape machines but also Dolbyized receivers (and perhaps tuners and amplifiers) as well.

In light of the above, is there a place for the other noise-reduction systems? Without question, yes! The majority of the other systems are neither competitive with the Dolby system nor made redundant by it. This is true because of the differences in operating principles between the Dolby units and almost all the others. The Dolby system's intended task is to prevent hiss from being added to the program material by the tape-recording, duplication, or broadcast processes. It is not designed to eliminate hiss that is already part of the program. On the other hand, some of the other systems will do a great job of removing hiss from noisy tapes or old discs with minimum effect on program frequency-range—something the Dolby system's circuits were not designed to do.

If the situation seems confused, perhaps a practical example will help clarify matters. Suppose you own some old 78-rpm discs you wish to transfer to cassettes. Assuming you have the equipment available, the purist's way to go about it would be as follows: First feed the noisy signal from the discs to a de-noiser. This would serve to remove most of the disc's surface noise. The output of the de-noiser would then be fed via the Dolby circuit to the cassette recorder to make a Dolbyized tape. The de-noiser at the input would prevent the surface noise of the disc from being recorded, and the Dolby circuits would prevent the cassette machine from adding its own hiss component.

But couldn't the de-noiser be connected to the output of the cassette machine to simultaneously eliminate the disc noise and the cassette hiss? Yes, but the Dolby circuits are needed anyway to play commercially prerecorded Dolbyized cassettes, and they will prove superior to any de-noiser system in providing hiss-free recordings of clean wide-range material that does not require de-noising at the outset. It is very difficult, for example, to remove hiss from music recordings when the harmonics of the musical instruments and the hiss are in exactly the same frequency range. The secret of the Dolby's success is its ability to do this by "pretreating" the music before the hiss intrudes. As Julian Hirsch states elsewhere in this article, the Dolby noise-reduction system is the only one that never has any detectable deleterious effect on the program. —Larry Klein
In playback, the unit is switched to expand operation, and placed at the recorder’s output circuits. Its gain is adjusted to unity with a 0-DB output from the recorder, so that a full-level signal will have been recorded and played back as though the compressor/expander were not in use. As the program level drops, the expander gain decreases in a manner complementary to the compression characteristic. In this way all levels of the playback signal are in their correct relationship, while any noise introduced in the recording will be reduced by the amount of low-level gain reduction in the expander.

**Kenwood KF-8011**

- Kenwood’s KF-8011 is a much more versatile unit than the 6011, although operating on identical principles. It has four separate switchable notch filters (3,000 to 4,500 Hz, 4,500 to 6,500 Hz, 6,500 to 10,000 Hz, and 10,000 to 15,000 Hz) in each channel. The attenuation action of each filter is separately controlled by the program level in its frequency range. This assures that there will be a minimum loss of high-frequency response in any frequency range carrying program material while noise is being reduced in other high-frequency ranges. Each filter can be switched in or out of the circuit by a pushbutton, and a DEFEAT button eliminates all the filters for an A-B comparison check.

The KF-8011 has an input-level control similar to that of the KF-6011, plus a separate adjustment for the sensitivity of the circuits controlling the filter response. The program levels in the two channels are monitored on large meters. Additional switching on the Kenwood KF-8011 gives it exceptional versatility. Any of four input sources can be selected. A switch puts the de-noiser circuits into the playback path of a tape recorder connected to its rear jacks. Another switch connects the KF-8011 to serve as a recording de-noiser between the amplifier tape outputs and the recorder inputs. This permits reducing the noise in the incoming signal by 6 to 15 dB before it is recorded (the actual improvement is an unpredictable function of signal level and frequency content), and then applying a similar additional noise reduction to the playback.

The Kenwood KF-8011 is 16⅜ inches wide x 5⅝ inches high x 11 inches deep (including its walnut end panels), and weighs 13½ pounds. Its styling and size match those of the de luxe Kenwood tuners and amplifiers. Price: $199.95.

The KF-8011, tested with all filters in use, had a very slight ripple in frequency response (which nevertheless remained within ±1 dB from 20 to 20,000 Hz down to a −30 dB level). At −40 dB the output began to drop between 2,500 Hz and 15,000 Hz. At −50 dB and below the shape of the rejection band could be seen—a broad region from 2,500 to nearly 20,000 Hz and almost 18 dB deep. The KF-8011 operated at any input level from 0.1 volt to 8 volts (it clipped at 8.5 volts). The noise level was 78 dB below 1 volt, with only 0.15 per cent distortion. Distortion remained below 0.24 per cent up to 2 volts output.

**DBX Model 117**

- The Model 117 de-noiser unit developed by dbx, Inc., of Harvard, Massachusetts, operates essentially as a "classical" compressor/expander. It is a self-powered unit, and small—5⅜ inches wide, 3⅜ inches high, and 9 inches deep, weighing just over 3 pounds. It is designed to be inserted between preamplifier and power amplifier or in the tape-out/tape-in signal path of an amplifier or receiver. Tape playback from the unit must go through the AUX amplifier inputs, so that off-the-tape monitoring is not possible when using the model 117.

  The dbx 117 has input/output characteristics with slopes that can be varied continuously from 0.5 to 2 by means of a single knob marked EXPRESSION. There are calibration marks at 0.5, 0.7, 1.0, 1.4, 1.7, and 2. A setting of 1.0 corresponds to normal operation (no compression or expansion). Values of less than 1.0 are for compression, and between 1.0 and 2 the unit is an expander. A GAIN control adjusts the dbx 117 for unity gain at any signal level from 0.1 to 1 volt. Its dynamic range, over which the calibrated slopes are obtained, is rated at 100 dB.

  The only other control on the Model 117 is a response-time switch (NORMAL and SLOW settings). Normally, one wishes rapid response to level changes, but when using the unit for playback expansion or compression (not noise reduction per se), some types of program material are reproduced more realistically with a slower response time. The dbx 117 has no power switch, but it draws only 2 watts and can therefore be left on continuously. Price: $145.

  The manufacturer recommends a setting of 0.7 for recording compression. A 10-DB change of input level then results in only a 7-DB change at the output, so that a program with a 50-DB dynamic range can be recorded with a dynamic range of only 35 dB on the tape. In playback, the setting is 1.4, so the 35-DB recorded dynamic range is restored to its original 50 dB. In the process, however, noise originating within the recorder is attenuated by 15 dB during playback.

  In our laboratory measurements, the input/output slopes were approximately correct at all calibrated points. The output clipped at 10 volts. Frequency response, which was not affected by the degree of expansion or compression, was down 0.5 dB at 20 Hz and 2 dB at 20,000 Hz. The 1,000 Hz harmonic distortion was under 0.05 per
cent at a 1-volt output for all settings of the EXPRESSION control. For a 20-Hz test signal at various settings of the control, harmonic distortion was 0.05 per cent at 1, 0.6 per cent at 1.4, and 1 per cent at 0.7. The output noise, as would be expected, varied widely with control settings. At 0.7, it was 56 dB below 1 volt, improving to -69 dB at the 1.0 setting. In any expanded condition, the noise was unmeasurably low—better than -80 dB. The response time at 0.7 compression was about 10 milliseconds from the start of a tone burst until its level had been reduced by half. At 1.4 expansion, the response time was roughly the same.

Operating as a compressor/expander, the dbx 117 provided the claimed noise reduction, which is typically 15 to 20 dB. When the recording and playback slopes complemented each other exactly, the action of the unit was undetectable to the ear. However, there is some amount of uncertainty in setting the EXPRESSION control, and when the expansion slope is not the exact reciprocal of the compression slope, it is occasionally possible to hear a slight "breathing" of the background noise level. Furthermore, it should be noted that the dbx 117 has no meters for the "breathing" of the background noise level. However, there is some amount of uncertainty in setting the EXPRESSION control, and when the expansion slope is not the exact reciprocal of the compression slope, it is occasionally possible to hear a slight "breathing" of the background noise level. Furthermore, it should be noted that the dbx 117 has no meters for the proper calibration and matching of input levels to tape-playback levels. The best results, in our use tests, were obtained by precisely adjusting the expansion setting by ear for minimum audible effect. It was frequently possible to achieve completely undetectable compression/expansion in this manner, with an impressive noise reduction.

It was somewhat inconvenient, when using the Model 117, to lose the off-the-tape monitoring facilities of the tape recorder, and to have to switch to the AUX input in order to listen to tapes. Of course, with cassette recorders this is no problem since they have no monitoring capability and can just as conveniently be connected to the AUX input of the amplifier for playback.

The Model 117 is equally useful as an adjunct to most listening, to compress the dynamic range for background music, or to expand it for adding a little "punch" to broadcast and recorded programs, which are usually somewhat compressed to begin with. As the EXPRESSION control is rotated in the direction of expansion, the background noise drops out impressively (expansion is the equivalent of turning down the volume control during pauses or low-level passages). This must be done in moderation to avoid an unnatural "surging" as the program dynamics vary. We found control settings between 1.0 and 1.4 to be very satisfactory with most music. No difference was detected when using the SLOW mode of operation, but this may have been due to limitations in the program material.

Summary of Tests

The music lover today has a considerable range of choice in noise-reducing "add-on" units. None is perfect or even ideal for all applications, but all those tested for this report proved to be very effective within their basic design limitations.

For tape-recording noise reduction, the Dolby systems are (in our view) the most satisfactory. They are the only ones whose noise-reducing action never affects the program dynamics of frequency response in any audible way. Furthermore, the Dolby system has the most universal acceptance. Many commercially recorded cassettes are now being Dolby processed, and FM broadcasts may soon follow suit.

The microphone preamplifiers of the Advent 100 and Teac AN-180 added a measurable (and sometimes audible) amount of noise when operated at high gain. Since the noise originates before the Dolby circuits, it is not diminished by their action. At maximum microphone gain, the Advent noise level increased by about 10 dB; the noise of the Teac AN-180 rose 21 dB under the same conditions. However, the microphone gain of the Teac unit is about 2.5 times higher than that of the Advent, and when they are set for approximately equal gain, the Teac's noise increase was only about 8 dB.

For reducing noise on programs that have not been Dolby processed, the Kenwood de-noisers are highly effective. When properly adjusted, their action can seldom be detected, and then only by listening critically. Their ability to reduce noise on programs before they reach the tape recorder, as well as afterward during playback, is especially worthwhile.

Since their operating characteristics—frequency response vs. level—resemble in a general way the action of a Dolby playback circuit, we tried the Kenwood units with some Dolbyized cassettes. To our pleased surprise, they could be adjusted so that an A-B switching comparison against a Dolby playback gave very good results. This required that the Kenwood unit be operated with its filter threshold just below normal listening levels, instead of its normal operation at -40 to -50 dB, since the Dolby system has an appreciable effect on frequency response at -20 dB. The de-noiser control range is adequate for this, and the final results were, to our ears, highly satisfactory. Although the overall frequency response of the Dolby-Kenwood combination, at low levels, was by no means flat (it is flat at normal listening levels), the 5 to 8 dB of variation at high frequencies occurred at such low levels that it could not readily be detected by ear. Thus, the Kenwood will do a very good but not precise job as a playback equalizer for Dolbyized tapes.

The dbx 117, although it is a highly effective noise reducer (unlike the others, it removes hum and rumble as well as hiss), is less convenient to use than the other systems. It is also, of course, not at all compatible with Dolby "stretched" programs as a playback device. On the other hand, its compression and expansion provide a degree of control over program dynamics not otherwise available to the music listener, and at reasonable cost.
WHEN the program for the fall season of the New York City Opera Company was announced, the roster included for the first time the name of Gwendolyn Killebrew. Although it may call to mind the heroine of an Oscar Wilde comedy, it is also suitably euphonious for a rising young opera and concert singer, which is what Miss Killebrew, a mezzo-soprano, happens to be. Since 1967 she has sung small roles at the Metropolitan in such operas as Die Walküre, Parsifal, and Elektra, but in the last year or so she has appeared more prominently and with increasing frequency elsewhere. Her operatic performances, especially in Carmen, have been acclaimed throughout Germany, Austria, and the United States, as have her recitals and engagements with symphony orchestras. This spring she sang the role of Ursula in scenes from Berlioz’s rarely heard Beatrice et Benedict at Philharmonic Hall, with the New York Philharmonic under Pierre Boulez, winning praise for her bright, forward sound and her excellent French. It is records, however, that most quickly bring an artist fame these days, and Miss Killebrew made her recording debut this year in the title role of Handel’s opera Tamerlano in the complete version issued by Cambridge Records. In this magazine’s review of the discs, Bernard Jacobson spoke of her “force and authority of expression” and said, “. . . the bite of her diction and the clarity of her articulation suggest that she has outgrown the prodigy stage and is now in the process of becoming an artist of real substance.”

Miss Killebrew lives in New York in a well-kept apartment building overlooking Central Park, and prior to her debut with the New York City Opera she agreed to be interviewed at home. Wearing a modified miniskirt, high white boots, and no makeup, she answered the door, smiling and displaying no diva mannerisms, and ushered me into her small living room, which was crammed full of books, records, and scores. Her roommate, Janet Wagner, also a rising young mezzo-soprano and a friend from student days at the Juilliard School, was banished from the living room for the duration of the interview.

Sitting at the dining table, Miss Killebrew offered me a cup of excellent tea and health-food chocolate-chip cookies. “There are no carbohydrates in them, but these bits of chocolate do taste real, not like soybean chocolate. I might be able to find a shot of scotch to put in your tea, but that’s all the liquor I have.” She said that she had only recently been converted to health foods, explaining that they contribute to physical stamina, which is absolutely essential to a singer. “I haven’t drunk since I started this health kick, and I don’t smoke. I’m really a clean liver, and do put that in—my mother will love it.”

Her speaking voice is warm and seductive, and as she talks of her student years and early career she uses her beautifully formed hands as expressively as Pearl Bailey or Magda Olivero. Hers is not one of the commonplace tales of long years of struggle, sacrifice, and heartbreak that young singers endure before the big break comes. Everything seems to have fallen into place quickly for her and without any particular struggle. Born in Philadelphia into a musical family, she began to study piano at the age of five and continued for seventeen years, adding, as she went, the organ, the French horn, and the violin. What was her first exposure to singing? “Church. My mother took me to church from the time I could walk. I joined the choir and sang every Sunday, and it wasn’t long before I was singing solos.”

At the age of eighteen she enrolled at Temple University. Its famous choir and its opera theater, of which she quickly became a leading member, gave her ample oppor-
tunity to develop her talents. She then went for further study to the Juilliard School in New York. In 1966 she was awarded the gold medal at the International Singing Contest of Belgium and the Metropolitan Opera National Council's Virginia M. Soutbough Award, and a year later she was a winner in the International Music Competition in Montreal. In all this time she has had only three voice teachers: James Bostwick, in Philadelphia; Else Fink, at Temple; and Hans Heinz, of the Juilliard School, with whom she still studies. "I am one of the fortunate few whose teachers' methods did not contradict each other," she says. "Does it sound as if it's all come easy? That's because you've just met me. It's really been a long, slow process, with people always telling me to be patient."

Not a great deal of patience can have been required, for her student showcase performances at Juilliard (Mahler's Kindertotenlieder, Haydn's Pauckenmasse, and leading roles in The Magic Flute, Albert Herring, Madame Butterfly, and Stravinsky's Mavra) were an easy transition to fully professional engagements. She has sung opera in such cities as Hartford, Conn. (Die Walküre), Boston (The Marriage of Figaro), Providence, R. I. (Carmen), and St. Paul, Minn. (The Rape of Lucretia), and has appeared with symphony orchestras from coast to coast, most frequently in the Verdi Requiem, Mahler's Second Symphony, and Beethoven's Ninth. She speaks enthusiastically of first-rate American orchestras and feels that more recognition should be given to a number of them which are of surprisingly high quality but are not sufficiently appreciated. "I would sing out in particular the Free, Pa., orchestra under John Gosling, the Youngstown, Ohio, orchestra under Franz Biebo, and, in larger cities, the orchestras of St. Louis under Walter Susskind, Milwaukee under Kenneth Schermerhorn, and Seattle under Milton Katims."

Miss Killebrew is an intelligent, well-balanced, self-assured young lady, articulate and opinionated, with a lifetime of study to back up her self-confidence. It surprised her when Brussels music critics, after a concert, mentioned her excellent French. "I mean, why shouldn't it be excellent? It had never occurred to me that it was anything else." She is unflappable where critics are concerned. Some reviewers were less impressed with her work in the Handel recording, with rich low notes, clear high ones, and an electric current of excitement surged through everything she sang. Asked if her European engagements had been arranged by her American managers, she said, "No, in 1970 I just went over and sang auditions, and I was hired." She sang Carmen, Amneris in Aida, and Ulrica in Ballo in Maschera in Detmold, throughout Westphalia, and in Klagenfurt, Austria, totaling more than twenty-five performances of Carmen in Germany alone.

She was impressed by German opera houses, particularly by the high level of orchestral playing, even in small provincial houses, and the ample rehearsal time. She attributes the popularity of opera in Germany to the fact that everything is performed in German. "Such opera singers as Anneliese Rothenberger and Hermann Prey are beloved by the German public. They appear regularly on television, issue an enormous number of records, and are mobbed on the streets. But Mario Lanza was the last classical singer whose name meant anything to the mass public in the United States."

She points out, however, that American audiences are generally responsive to opera. "But I believe its popularity here would be greatly enhanced by the use of good modern translations into English. After all, the man in the street wants to know what's going on and what the character is singing about." She also thinks that interest in opera would be increased by greater use of good young Americans singers and fewer second-string European imports.

Miss Killebrew absolutely denies that a European singer, being born into a particular tradition, can give a more convincing operatic performance than an American. "Not at all! That is simply not true. My Carmen was a great success in Germany, and nobody seemed to mind my not being French. American singers are better than German singers. We have better schools and better teachers. Even they admit it."

Any doubts about Miss Killebrew's ability to deliver a convincing performance would have been dispelled by hearing her as Ulrica at the New York City Opera. She made a star turn out of a role that is often drab even in the hands of more experienced singers. The New York Times described her conception of the part as "taut and genuinely compelling. Her voice had a more luscious sound than in the Handel recording, with rich low notes, clear high ones, and power to spare. She revealed superior acting ability, and an electric current of excitement surged through everything she sang."

After the last of her fall performances of Ballo, there was no time for her to relish the audience's bravos, for she had to leave the theater immediately and rush to the airport to fly to Germany and begin rehearsals for her most important European engagement to date, her debut in Munich at the Theater am Gärtenplatz in Carmen. She will return for the spring season of the New York City Opera and then go back to Germany for performances in Lübeck. "Please don't call me a jet-age prima donna," she said. "An international singer perhaps. I hate this kind of split-second scheduling, and I will stop it as soon as I can, but at this point in a career... well, the contracts are offered, and you have to take the opportunities as they come."
Music Editor James Goodfriend reports on the
OPENING OF THE KENNEDY CENTER

ONE NEED NOT be a professionally qualified critic of architecture to see that the new John F. Kennedy Center for the Performing Arts in Washington, D.C., is an ugly building. It sits on the banks of the Potomac looking, in all its externals, like a white marble apotheosis of the American warehouse, huge and boring. Internally, its two transverse corridors, hung with flags, provide the ambience of a commercial world’s fair, and its “grand foyer,” stretching the full length of the building, is more notable for the quantity of humanity it can hold than for any elegance of decor. The huge bronze head of John Kennedy, placed off center in the foyer, resembles the late president only from certain specific angles. And though there are elevators that will take one to the roof (where the restaurants are situated), those who hold tickets for the second tier are invited to climb three flights of stairs. There are enough things wrong, in short, that a number of them are easily visible even to the untrained eye.

But one does not have to be a professional music critic, either, to understand that Washington badly needed a performing arts center, and that this one, despite its homely appearance, will most likely suffice. The Eisenhower Theatre has not yet been opened, nor has the film theatre that will sit on top of it (all four halls are contained in the one building). But the opera house seems, at the least, adequate in terms of facilities, seating, and acoustics, and the concert hall, more pleasing in appearance than any other part of the center thus far seen, is both comfortable and undeniably satisfying in its acoustics. In terms of intended function, then, if not form, the center must be declared a success. The architect was Edward Durell Stone.

The opera house, whose shape is somewhat like that of a partially opened fan, seats about 2,300 people, considerably fewer than the larger American opera houses (New York, Chicago, San Francisco), but more than most European houses (Vienna, Berlin, Bayreuth, Paris). Its walls are covered with red fabric (which has already started to look soiled in places), punctuated with rows of gold-colored buttons. The effect is something like a candy box, or a
hat box, or a jewelry box . . . I can't quite place it, but it is essentially box-like. Overhead, the central chandelier, a gift, as was the Metropolitan Opera's, of the government of Austria, is a free form of crystal and brass, attractive in its way but by no means as elegant as the Metropolitan's. The seats of the house are comfortable, and access, once the public learns the location of all the doors, should be relatively easy.

Both because of the special nature of the music heard and the location of the seats supplied to me (once in the first tier, once in the orchestra close to the stage and well over to one side), I found the acoustics difficult to judge. One thing is certain: whatever is on the stage projects strongly into the hall. The questions I have concern the orchestra in the pit, whose projection may be more upward than outward. If true, this would mean a house in which the singers overbalance the orchestra, something of a novelty in opera houses and perhaps not entirely undesirable for much of the repertoire.

The concert hall's decor is cream-color and gold, its ceiling a plane of recessed hexagons, its lighting largely from chandeliers designed as hexagonal masses of single, cylinder-shaped units. It is quite different in styling from the rest of the center. The hall is rectangular, longer by about half than it is wide. It seats nearly 2,800 people, almost two thirds of them in the orchestra, since the boxes and first and second tiers are only narrow projections along both sides of the house, deepening to a maximum of six rows at the rear. The rather attractive pipes of an organ (not yet completely installed) form the backdrop of the stage, which itself seems to be very much in the hall rather than opening off it. In acoustic ambiance the hall is on the dry side, but not unpleasantly so. The sound is exceedingly and unusually clear and open, and tends slightly toward the brilliant. There is ample bass to be heard, and the balances among different instrumental and vocal groupings seem exceedingly just. Perhaps the brasses and percussion predominate a trifle, but taking them off the risers they were on for the opening concert may well remedy that. In all, it is acoustically a very fine hall, certainly one of the best in the United States, and worthy of comparison with the best I have heard anywhere.

The official opening night of the Kennedy Center was September 8, the location the opera house, and the work the world premiere performance of Leonard Bernstein's Mass, "a Theatre Piece for Singers, Players and Dancers," written for the occasion at the request of President Kennedy's widow. Maurice Peress was the conductor, the choreography was by Alvin Ailey (featuring his American Dance Theatre), and the production was directed by Gordon Davidson. Mr. Bernstein took his text from the Latin Mass but mixed with it additional texts written by himself and the young lyricist Stephen Schwartz. The performing forces (besides the dancers) included full symphony orchestra, mixed chorus, boys' choir, a brass and reed band, a rock combo, a blues combo, a principal soloist (Alan Titus) in the role of the Celebrant of the Mass, numerous other vocal soloists, and prerecorded tape material involving both instruments and additional vocalists. One might say of the production that it was semi-staged: there were costumes and some action, but no scenery except a single white stairway-like platform rising toward the rear and ending in space.

It is difficult to give a precis of the work, particularly since neither scores nor librettos were available and the familiar Latin text alternated with unfamiliar English and, at moments, Hebrew. Roughly, the "plot" is as follows: after an opening Kyrie, prerecorded and multiple-channel both in material and in medium, the baritone soloist appears as a simple folk singer with (electrified) guitar. He sings a hymn (A Simple Song), after which he dons a pale blue unadorned robe (denoting priesthood) and becomes the actual celebrant of the Mass. The work then passes through all the sections of the Latin Mass, in a wide variety of settings, with the addition of numerous commentaries. There is, for example, an I Don't Know following the Confiteor, a purely orchestral Meditation No. 1, a Non Credo that follows immediately upon the Credo. The Celebrant is not merely celebrating Mass, he is acting as an evangelist, preaching to the multitudes, arguing with them, attempting to convert them. As the work progresses, his once simple robe is adorned with more and more religious ornaments.

The turning point is reached with the Agnus Dei, which is sung not by the Celebrant, but by the throng, stamping their feet, attacking the Celebrant with the words Dona nobis pacem (Give us peace). It is probably the only accusatory setting of the Agnus Dei in all of music, and even if its reference is obvious, its effect is powerful. The meaning of what happens at this point is somewhat open to question and, since Mr. Bernstein canceled his press conference after the premiere, it could not be verified (the program included no discussion of the work and no text). As it appeared to this viewer, the exhortation of the crowd is for the Celebrant himself to become the "Lamb of God," the sacrificial lamb, that is, as the means to peace. The Celebrant's muttered reply expresses unwilling acquiescence, and he picks up the vessels of Communion and begins to ascend the stairs (which by now have taken on the meaning of a
sacrificial altar). As he nears the top of the stairs, he suddenly drops or throws the holy vessels to the ground, breaking them. His explanation of this as an accident (Things Get Broken) is not accepted, and he strips off his robe and dances madly on the altar. But whatever he says or does, he is not able to restore to the crowd the aura and excitement of belief he had so painstakingly built up previously.

He exits (the futility of conventional religious belief, perhaps?). There is silence, a feeling of shock and desolation, while all assembled lie prostrate on the ground. Then a child (“and a little child shall lead them”?) runs to an elderly man, embraces him, and lifts him to his feet. He in turn embraces his neighbor, and soon all on the stage are awake and singing, and the boys’ choir troops into the audience to continue the embracing with the admonition “pass it on.” The singing comes to an end, and a recorded voice announces: “The Mass is ended; Go in peace.”

If it is difficult to relate the story, to enumerate the musical means used to present the story is even more difficult. Certainly one can say that, apart from Mr. Bernstein’s own previous works, the musical antecedents of this Mass are far less the Mass in B Minor and the Missa Solemnis than Hair and Jesus Christ—Superstar. That is not to say that Mass is a rock piece, although it has what seemed to this listener to be some rather arthritic rock in it. But rather Mass is (as the composer says) a “theatre piece,” and, even in the context of Mr. Bernstein’s own creativity, it is more in the line of West Side Story than of The Age of Anxiety. The vocal styles employed are classical operatic, crooning, rock belting, and blues, but primarily (and touching nearly everything) the peculiar and specific idiom of the Broadway musical, with its emphasis upon projecting even the most intimate phrases to the last row of the balcony, subtlety of expression be damned. The instrumental styles have a little of everything—Boulez, Orff, Copland, Mahler, jazz, Forties swing, rock, folk, even one-finger piano playing—but overall, again, the feeling of the pit orchestra in a Broadway theater.

One can find specific reminiscences. The fingersnapping number from West Side Story makes an appearance, as does the vocal group from Trouble in Tahiti. The Sanctus, with its boys’ choir, has a saccharinity that immediately calls to mind The Sound of Music (not, thank God, by Mr. Bernstein). Visually, textually, and musically, virtually every cliché of the last ten years is in there somewhere (black power salutes, hand slapping instead of shaking, references to the extinction of animal species, rock triplet rhythms). It is one big tzimmis, as up to the minute in its use of a multiplicity of idioms as the Berio Symphony and Eric Salzman’s Nude Paper Sermon.

But it doesn’t work. Yes, there are marvelous moments; few people were not moved at some point in the work. There are occasional beautiful themes (but not as many as in Candide), inventive counterpoints, rhythmic interest aplenty. At moments when the whole performing ensemble is whipped up the excitement is very real and very contagious. The performers could not be faulted, and Alan Titus (who, interestingly, was also soloist in Salzman’s Nude Paper Sermon) emerged from the experience a star. But, overall, Mass doesn’t work, and the question is why.

One reason may be the sheer extensiveness of the resources. After one has been screamed at through a mass of loudspeakers (many things going on on the stage are individually microphoned and fed through the amplification and speaker system) a mere fortissimo from the orchestra is a pale effect. The gimmicks tend to play down the music itself; the sheer number of performers and stylistic possibilities tends to make their use superficial and elementary. Second, so many of the clichés are embarrassing in themselves. The rock combo doesn’t get off the ground, nor does
the blues combo opposed to it, and one is reminded of Marc Blitzstein's dismal failure to write a viable jazz at one critical moment in his otherwise effective Regina. Third, and I think most important, the idioms are not played off against one another, but smeared over with the same brush. A voice begins a straightforward lyrical line and ends the phrase with a flatted third to the tonic, a cliché of the blues. A vocal group begins a jazzy passage and goes off into rhythmically square contrapuntal complexities. And almost everywhere the neon brush of Broadway paints the lily. Mr. Bernstein's Broadway style is admirable in itself—his shows may be his best music—but it is not here by itself. It is in mixed company and feeling very uncomfortable about it.

Unquestionably Mr. Bernstein is one of the greatest musical talents this country has yet produced, but as a serious composer he has never found his way. All composers are experimental for a while, but they fuse the results of their experiments and ultimately find a style. It is the most unfortunate of contradictions that in light music Mr. Bernstein has long ago found his style, and in his more serious efforts he has searched and found only fashions. Mass is a fashionable piece. What will it be when the fashions change?

The second gala night of the Kennedy Center took place in the Concert Hall (while Mass was repeated in the Opera House). A concert by the National Symphony Orchestra, it was a much more conventional sort of evening, unusual mostly in the number of high government officials present. The program was, if not musically inspired, shrewdly devised: Beethoven's Consecration of the House Overture, Stravinsky's Le Sacre du printemps, the Mozart Violin Concerto No. 3 in G, and William Schuman's A Free Song, which involved full orchestra, baritone soloist (Simon Estes), and mixed chorus.

The Beethoven is just about pro forma for such occasions (would it receive a tenth as many performances were its title merely "Overture, Op. 124"?), but Le Sacre was an excellent choice to show off the capacities of the orchestra and the acoustics of the house, and its placement on the program forced a great many people to sit through it who would not have done so otherwise. Perhaps official Washington will become musically cultured in spite of itself. The Mozart offered a different test for the hall (and for Isaac Stern, the soloist), and the Schuman gave one ample opportunity to judge vocal and instrumental balance.

The star of the evening was unquestionably the hall. I would be willing to swap Philharmonic Hall for its Washington equivalent any day. The National Symphony sounded much improved from the last time I had heard it years ago. It is not yet first-rate, but it has competence. I hope it will continue to improve at the same pace.

On the third evening we returned to the opera house for the world premiere performance of Alberto Ginastera's Beatrix Cenci, commissioned by the Washington Opera Society. The libretto of Beatrix Cenci was written by William Shand and Alberto Girri and the opera was given in Spanish. Justino Diaz sang Count Francesco Cenci, Arlene Saunders sang Beatrix, Carol Smith sang Lucretia, Beatrix's stepmother, Anthony McLean was Bernardo, brother of Beatrix, and Grayson Hirst was Orsino, a prelate and former lover of Beatrix. The director was Gerald Freedman, Ronald Chase supplied films and projections, and the performance was conducted by Julius Rudel.

There is a certain contradictoriness about Beatrix Cenci that comes to light in simply comparing the synopsis of the opera with the actual libretto, before one has even heard a note of the music. The story is an especially bloody one (a young Roman noblewoman is raped by her father, arranges his murder by hired assassins, and then, in turn, is tortured and condemned to execution), but it reads, in synopsis,
much like that of many a nineteenth-century historically based opera, with a banquet, a masked ball, the heroine praying before a statue of the virgin, messengers, servants, and a weakling lover. But in the libretto the characters are only occasionally people, only occasionally engage in true dialogue or announce their intentions or feelings, the standard literary material from which most operas are made. Cenci, for example, sings: "Mental disorder and normality enlarge that which separates them/when the sufferer accentuates/his firmness,/his obsession with illusions,/whilst he who is normal/surrounds the brain with questions,/recedes from the soul,/and in his T'ao Te Ching,/his book of the Road/and its virtue,/persists in underlining/the same phrase:/Keep your heart empty/and fortify your bones." This is not exactly your usual operatic monologue. Similarly, Beatriz’s younger brother (about twelve, from all appearances) sings, "Mirrors reflect,/they do not retain,/it is impossible to get into the body of a mirror . . . ." when one, ascertaining the situation, would expect him to be singing something like, "Mother, I’m frightened." In brief, then, Messrs. Shand and Girri (and, presumably, Ginastera) seem to have been less interested in characters and confrontations than in philosophical ideas (rather murky ones, at that), and that is a very hard way to write an opera.

One scene and one comment deserve particularly to be recorded here. Count Cenci lies in a drunken stupor on his bed, while Beatriz urges the hired assassins to kill him, pushing them to the deed in spite of their fright. They stab him and as he lies in his own blood she goes to look at him. In a dying gesture he reaches up and tears at her gown while the orchestra screams with the agony of the sufferer. They stab him and as he lies in his own blood she goes to look at him. In a dying gesture he reaches up and tears at her gown while the orchestra screams with the agony of the scene. He then falls back dead as Beatriz and her brother, frozen into immobility, stare at him (and the audience, in the sudden and effective silence, begins to recover from the shock). At that moment, a middle-aged, pleasant-faced lady seated next to me leaned over and whispered, "Now that’s why I like the Lawrence Welk show!"

All the principals did exceedingly well with the music, and there was none of the foot-stamping, cheer-leading school of acting, once so prevalent on the operatic stage, to mar the drama. The pacing was just, the orchestra and chorus rendered whatever was asked of them (as much as one could tell without a score) nobly, and, as an evening in the theater, Beatriz Cenci is a powerful experience. But the question remains: is it enough? Can an opera survive that depends so much upon the visual and the literary, that so often seems to be using music as a mere stage prop? In a sense, the problem of Ginastera’s Beatriz Cenci is related to the problem of Bernstein’s Mass. The one is an exhortation to love, the other a protracted scream of agony. But neither the exhortation nor the scream is intrinsically musical, and music is what it’s all really about. Isn’t it?
ANTON WEBERN: THE ORIGINS OF A MUSICAL STYLE

The Quartetto Italiano presents sensitive interpretations of two early works for Philips

The discovery a few years ago of a large collection of unpublished, previously unknown manuscripts of works by the Austrian composer Anton Webern has made it possible for the first time to retrace step by step the long road the composer traveled on the way from his beginnings as a late Romantic to his becoming one of the prime musical radicals of our time. To my knowledge, the Quartetto Italiano's just-released recording for Philips of two of these manuscript works—the Langsam er Satz (Slow Movement) and the String Quartet (both dated 1905)—are firsts. Webern was only twenty-two when he composed them, and they precede his published Opus 1 Passacaglia by three years.

Both of these works are, to say the least, unusual. Webern met Arnold Schoenberg in 1904, and was his first pupil. It is fair to assume that Schoenberg's teaching and example had some effect on these early compositions, which date from the very next year. Like Schoenberg's own works up until about 1908, the ethos is late-Romantic, and the historical-technical orientation is, in large part, Wagnerian. But it is a very special kind of late Romanticism: harmonic progressions are often surprising; the violin sometimes plays intense, surcharged melodies so high up on the E string that they begin to assume meanings all their own; and finally, the melodic lines are extraordinarily long in the Slow Movement, the exact opposite of the tiny, cellular modules on which Webern was later to concentrate.

In the unpublished String Quartet of 1905, Webern began to move away from these long, flowing melodies and toward motivic structure and severe contrapuntism. I was extremely intrigued by the opening motif of this quartet, a motif from which most of the piece is constructed. Resembling very closely both the Muss es sein? figure in Beethoven's Opus 135 String Quartet and the traditional B-A-C-H motive (transposed to a lower pitch level), it seems to possess some mystical raison d'être well beyond the fact of its easy structural motility. In addition to this, a later chromatic mordent figure—almost identical with one in Schoenberg's Verklärte Nacht—is worked extensively into the texture. Since the Verklärte Nacht figure is in itself so purely Wagnerian, there is of course the distinct possibility that the two composers simply happened on it quite independently of each other—in Wagnerian chromaticism, certain formulations are almost inevitable. On the other hand, considering among other things the intimacy and the mutual respect existing in the personal relationship between the two composers, I wonder if Webern may not have been playing some cryptological game in this early work.

Webern's smoothly gradual transition from his pre-Opus 1 style to his later idiom and, I suppose, "technology" is a fascinating thing to hear. I have myself always felt that real revo-

ANTON WEBERN
After a painting by Oskar Kokoschka
Sensitivity, color, lovely ensemble

Sensation, color, lovely ensemble is a gradual phenomenon rather than the sudden explosion of change it is usually considered to be—change does not take place at the exact moment the Bastille is stormed, but rather during all the events-in-time that lead up to such a symbolic event and even go beyond it. In music, at least, Webern’s case (and Schoenberg’s, Varese’s, Carter’s, and Cage’s) seems to bear this out.

The Quartetto Italiano plays in this recording with sensitivity, lovely ensemble (they always have that), and a lavish palette of beautiful tone colors. Their playing of the two late-Romantic works is gorgeously songful; delicacy (and sophistication) of interpretation and warmth of sentiment are everywhere in evidence. The Five Movements for String Quartet, Op. 5, and the Six Bagatelles, Op. 9, are also played with great elegance. Only the String Quartet, Op. 28, a more angular, hard-edged work, sounds a bit labored and thus less refined in timbre than it should be. But it is an exceptionally resistant piece, and of the recorded performances I have heard, only that by the Claremont Quartet (on Nonesuch) is any closer to the ideal.

Lester Trimble


POSTHUMOUS SZELL: BEST HAYDN ANYWHERE

The late conductor’s performance of the Symphony No. 97 is an exuberant, songful revelation

I AM NOT exaggerating when I say that George Szell’s performance of Haydn’s Symphony No. 97 in a posthumous release from Columbia is probably the finest Classical performance I have heard in a life largely spent in listening to Classical performances. It is not just good, or excellent, or marvelous—it is unbelievable! The depth of Szell’s understanding of the music’s sturdy elegance, its firmness of line and spirit, and its great, warm heart is simply not comparable with anything I’ve ever heard or even heard about. And, believe it or not, with all the Haydn there is in the catalog, this glorious symphony is not otherwise available except as part of a larger set.

One of the difficulties in interpreting eighteenth-century Classical orchestral music is that everybody “knows it” so well nowadays that it is almost impossible to avoid routine habits of playing or to accord it the respect of believing in its contemporary relevance, thus giving it a sense of immediacy rather than of elegant distance. (At an extreme of bad interpretation, of course, a conductor can use it as a vehicle for the projection of his own personality, as Kara-

George Szell

An incomparable depth of understanding in Haydn
jan is wont to do in some of his rather smug Classical performances. Here, with Szell, there are no problems at all: no nineteenth-century overlay of bathos or other fatty deposits, no uncertainty before such things as the (only apparently) heavy-footed waltz rhythms, which can be so beautiful in Haydn when tempo and ambiance are right and so lumpen when they are not. Further, the Menuetto and Trio of old No. 97 are a joy, an exuberance, a song, and a revelation as Szell plays them here.

Such interpretive inspiration comes even to the best of artists but rarely, so it is not too disappointing to find that, in the accompanying Symphony No. 98, Szell is just his own remarkable self, not the archangel he is in No. 97. I have not one negative thing to say about this performance, however; it is clean, perfectly weighted in all its balances and emphases, and tonally handsome. It is as good or better than almost any Haydn performance that comes to mind. But oh, what that ineffable extra something does for the other side!

Lester Trimble

HAYDN: Symphonies No. 97, in C Major; No. 98, in B-flat Major. The Cleveland Orchestra, George Szell cond. COLUMBIA M 30646 $5.98.

--- ENTERTAINMENT ----

THE BEACH BOYS HANG TEN IN THEIR NEW "SURF'S UP"

The Brian Wilson-Van Dyke Parks title song is a standout in the latest from a unique group

The Beach Boys' new "Surf's Up" is a great album. I can't begin to document that claim with chapter and verse (though I could easily pick out several flaws in the album), the reason being that this is one of those infrequent pieces of work that remind us that the viscera are still very much in charge of matters of subjective preference. The intellect can babble and nitpick around the edges all it wants, but the central fact isn't altered one iota—this is a great album.

The title song, Surf's Up, was written by Brian Wilson and Van Dyke Parks some years ago, but Brian refused until now to release it. It is a mind-bender: its melodic structure is complex for a pop song—and yet, oddly enough, it's hummable—and its lyrics rush in where all but Captain Beefheart fear to tread. They are, in fact, vaguely like the poems of T. S. Eliot—and like those Walt Kelly gives his Pogo characters to recite as well: they evoke fractured images, fragments of thought, one upon the other, piggy-back style. They keep reminding you that they are made out of language ("Canvass the town and brush the backdrop") and out of the imperfections of language as well, just as knotholes, under the right circumstances, become important to an interior wall. The message? It's about aging, about the music's ending, about going home (wherever that is) afterwards ("the laughs come hard in Auld Lang Syne"), about the child being father to the man, and more, secondary themes superimposed here and there, the imagery refrangible, each listener left to filter out his own unique message. It is at once challenging and involving for the listener, and easy to listen to as well. It is probably the best song I've heard since MacArthur Park—and keep in mind that it probably predates MacArthur Park.

I don't mean to imply that the other songs in the album are in any sense fillers. Bruce Johnston's perceptive treatment of nostalgia, for instance—Disney Girls (1957)—deserves (though space forbids) a long and careful appraisal of its own. The instrumental arrangements are especially good, pleasing me more than any since 'Abbey Road.' The Beach Boys' style has had its corners knocked off since the days of I Get Around, but there are flashes of the old touch (a brilliant vocal treatment of 'Til I Die), and the album leaves the overall impression that the group is still unique. Some of the songs have incom-
THE WHO: Vital and intelligent dealers in musical brimstone

plete melodies, but then again, the album itself seems complete. Some of the lyrics are childish, two of the melodies are borrowed from other songs, a couple of others remain obstinately unmusical. I don't care. It's a great album. Noel Coppage

THE BEACH BOYS: Surf's Up. The Beach Boys (vocals and instrumentals). Don't Go Near the Water; Long Promised Road; Take a Load Off Your Feet; Disney Girls (1957); Student Demonstration Time; Feel Flows; Lookin' at Tomorrow; A Day in the Life of a Tree; 'Til I Die; Surf's Up. REPRISE/BROTHER RS 6453 $4.98, @ B 6453 $6.95, @ M 86453 $6.95, @ M 56453 $6.95.

THE WHO GO RIGHT ON DANCING

"Who's Next?", their new album for Decca, is a splendid collection of songs

THE WHO: Who's Next? The Who (vocals and instrumentals). Baba O'Riley; Getting in Tune; Bargain; Song Is Over; Going Mobile; Love Ain't for Keeping; My Wife; Behind Blue Eyes; and Won't Get Fooled Again. DECCA DL 79182 $5.98, @ B 79182 $6.98, @ 6 9182 $6.98, @ 73 9182 $6.98.

EVEN THOUGH we may not have tried lighting one up for ourselves lately, I think we all know what a lovely light those two-ended candles can cast. Just look, for instance, at the remarkable glow that comes from "Who's Next," the Who's latest release for Decca. It is, among other things, a stunning example of a group of artists who are able, through the force of sheer talent, to prolong a style that has pretty much had its day. Much as Sinatra was able to breathe some life back into the already moribund ballad form with a string of superior albums in the mid-Sixties, so the Who go right on dancing into the Seventies with that tattered lady known as Rock. No one seems to have told them that her reputation today isn't all it once was—not, I suppose, that the news would make one bit of difference to them.

Nevertheless, this is one splendid album, and if there were more like it—or had been more like it—then perhaps Rock might still be with us. The biggest single talent here, as fans will know, is Pete Townshend. He has outdone himself this time, writing a collection of songs that perfectly suit the brimstone performances of the group. Baba O'Riley (no relation, I believe, to the present writer) is for me the best song in the album, and although it is not quite as raunchy as the jacket photo, nor quite as amusing as the ads Decca is running for the album in the trade papers (two Amazon hookers with only the album title as copy), it is still a very lively track indeed. But then I couldn't find anything in the album that I didn't like. It is a solid job all the way, and the Who remains an intelligent, tremendously vital group that continues to enjoy my respect and merit my admiration.

THE WHO: Who's Next? The Who (vocals and instrumentals). Baba O'Riley; Getting in Tune; Bargain; Song Is Over; Going Mobile; Love Ain't for Keeping; My Wife; Behind Blue Eyes; and Won't Get Fooled Again. DECCA DL 79182 $5.98, @ B 79182 $6.98, @ 6 9182 $6.98, @ 73 9182 $6.98.
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RECORDING OF SPECIAL MERIT

BACH, J.S.: Violin Concerto No. 1, in A Minor (BWV 1041); Violin Concerto No. 2, in E Major (BWV 1042); Concerto for Two Violins, in D Minor (BWV 1043). Eduard Melkus (violin); Spiros Rantos (violin, in BWV 1043). Capella Academica Wien. Deutsche Grammophon Archive 2553 073 $6.98.

Performance: Excellent
Recording: Excellent

The name of Eduard Melkus as soloist and conductor here denotes a performance in which stylistic accuracy is paramount. Old instruments or reproductions of them are used, the ensemble is properly small, and phrasing and articulation adhere to eighteenth-century principles. This does not in any way imply, I must hasten to add, that the interpretations are only of musico logical interest—far from it! Melkus has some very interesting ideas (notably the very fast middle movement of the A Minor Concerto, an andante that strikes me as a little too breathless) and a definite performing personality. A good deal of what one hears here is quite exciting, and much of it (the slow movement of the Double Concerto, for instance) is very sensitive. Melkus' only competition in this type of historical re-creation is the similar coupling by the Vienna Concentus Musicus, a disc issued a year or two ago, and one that I feel never received its due. That performance is even superior in its ability to capture the tonal colors of the strings. The articulation of the bowing is clearer, and a feeling of zest in the rhythms of the players (particularly the lower strings) emerges most effectively on Telefunken. Despite these factors, the Archive performances are very fine ones; it is a pleasure to hear the slow movements of all three concertos played with the proper expression and without the soupy sentimental style that sometimes passes for Bach.


Performance: Excellent
Recording: Excellent

These are excellent performances of two chamber works that escaped overexposure even during last year's bicentennial orgy of Beethoven's music. The Opus 29 Quintet for Strings, written when the composer was only thirty-one, is obviously an "audience piece," but a far cry from the Sextet was put on this recording. It is a poor piece, of only documentary interest. The horn was a difficult and limited instrument in Beethoven's day, and he couldn't do much of interest with it in this instance. Though the horn players here are not bad, they are certainly no virtuosos. You'll have to stick with the other side. But it's worth hearing.

SIR THOMAS BEECHAM

A healthy ego in service to music


Performance: Splendid
Recording: Excellent

Here is a beautiful recording which, though it has been available in England for some time, is just being released in this country. The late Sir Thomas Beecham had put two versions of the Symphonie fantastique on tape in the late 1950's, one in mono and this one in stereo shortly afterward. Only the mono has previously been available here.

What an extraordinary musician he was! Without doing anything at all eccentric or spectacular, he was able to bring out the essence of a piece we've all heard a thousand times and posit his own fresh views of it in the act. It is difficult to describe the many ways in which Beecham's particular genius shows, simply because they are always so straightforward—musically. Healthy as his ego was, he let it stand behind the music, not in front. A particular kind of frank attack in big tutti chords; almost pedantically worked-out inner parts in a contrapuntal texture; a bit of audacious timbre in sections such as the "Songe d'une nuit du Sabbat"—these don't sound so remarkable in the telling. And yet, the sum of many such special spots adds up to a fresh experience of a very familiar piece.

The French National Radio Orchestra, which is not the most cooperative group of musicians in the world, played for Beecham on this recording almost as if he had been a Frenchman—except (one senses) they really paid attention! There are no sloppy spots, no places where the conductor accepted what the orchestra did automatically. Everything here has the stamp of control and of Beecham. A fine legacy indeed.

(Continued on next page)
THE KARAJAN DIE MEISTERSINGER

BLOCH: Baal Shem: Nigun (see WIEN-IAWSKI)


Performance: Excellent 
Recording: Good

Handel’s first visit to England in 1710 coincided, curiously enough, with the birth of the only two native composers able to make notable reputations for themselves in the face of his overpowering genius and influence—William Boyce and Thomas Arne.

Best known as a cathedral organist and the composer of sacred music in his own time, Boyce had his name and reputation resurrected in the 1930’s through Constant Lambert’s edition of his eight charming symphonies. Since then there have been several recordings of the symphonies, two of which are still available on the Turnabout and Bach Guild labels—and Oiseau-Lyre offers a fine disc of the overtures to the King’s Birthday and New Year Odes.

In this Musical Heritage Society disc, we get a sampling from the twelve trio sonatas published in 1747. As with Boyce and other instrumental works, their musical language is a felicitous combination of Italianate homophony and a judicious touch of “learned” polyphony. The Sonata No. 9, with its central fugal and canonic movement, provides the most striking instance. Other sonatas, such as No. 8, are more like the Baroque suite of dances. Instead of making a strict distinction between the sonata da chiesa and sonata da camera à la Corelli, Boyce has chosen to work out a viable combination of both. The result as exemplified in these recorded performances is a sonata clearly intended as a landmark for the late 18th century. 

BRITTEN: The Rape of Lucretia. Peter Pears (tenor), Male Chorus, Heather Harper (soprano), Female Chorus, John Shirley-Quirk (bass), Collatinus; Bryan Drake (barytone), Junius; Benjamin Luxon (baritone), Tarquinius; Janet Baker (contralto), Lucretia; Elizabeth Bainbridge (mezzo-soprano), Bianca; Jenny Hill (soprano), Lucia; English Chamber Orchestra, Benjamin Britten cond. LONDON OSA 1288 two discs $11.96

Performance: Mostly excellent
Recording: Excellent with reservations

The Rape of Lucretia (1946) is one of Britten’s most fascinating and least appealing works. I am not sure exactly how to explain this paradox, but it probably has something to do with the moral and artistic pretentiousness of the idea, which is, nevertheless, realized in a very simple, sincere, and even inspired manner. The model is clearly the Stravinskian chamber- opera form. Like Stravinsky, Britten and his librettist Ronald Duncan chose a known subject full of literary resonance; in fact, this is an English version of the old Roman story. As in the Stravinskian form, we are looking in from the outside, specifically through the agency of a male and female “chorus.” These cho-ruses—individuals both—set the scene, narrate, comment, and draw the moral (somewhat surprisingly, an ultra-Christian one). Indeed, these are the main characters and to, a degree, the only ones. The principal actors of the actual story play out their fated roles without much conviction. All the women of Rome are whores except Lucretia, so, naturally, Tarquinius, the Etruscan tyrant, must do her in. The perfect love between Lucretia and her husband Collatinus is therefore spoiled, Lucretia must kill herself, Rome revolts ("Down with the Etruscans," "'Rome for the Romans'!")), and only Christ can redeem our very original sins. Well, I don’t think too many people are going to buy all this nowadays—indeed, the Sicilian morality of all this could be described (if one could take it seriously) as decidedly male-chauvinist sexist!

Since great stretches of The Rape of Lucretia are taken up with recitation of its rather mediocre poetry and still more dubious morality, one might imagine that the positive values here are rather limited. In fact, the work contains a great deal of Britten’s most inspired and attractive music—such passages as Junius’ invocation of Lucretia, the choral-like interlude after the rape, the baroque arioso music for Lucretia’s mourning, and others. Nowhere in Britten’s work are the simplest of means employed with more telling effect. Indeed, on grounds of purity, musical unity, and coherence, the work compares very favorably with, say, the Stravinsky- Cocteau Oedipus. But it lacks entirely the latter’s larger-than-life stature, the magnificent abstraction, inevitability, and quality of summation that make Oedipus a landmark.

The performance report must be, in spite of some roughness, very strongly on the positive side. Peter Pears’ voice has acquired a bit of a wobble when it is pushed—and unfortunately this is at its worst at the very opening. But there is still a good bit of remarkable and even beautiful singing left in the voice—and, of course, he created the part. John Shirley-Quirk and Janet Baker are especially persuasive in an outstanding cast, and the instrumental playing is on a par. The direction is, of course, the composer’s own, and the recording, aside from some too muffled off-stage vocal effects, is very good.

BRITTEN: Young Person’s Guide to the Orchestra (see ELGAR)

BROZEN: In Memoriam (see THORNE)

RECORDINGS OF SPECIAL MERIT


Performance: 1970 Chopin Competition prizewinner
Recording: Very good

(Continued on page 86)
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My Favorite Movements from Great Concertos
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Twenty-three-year-old Garrick Ohlsson, a student of Sascha Gorodnitzki at Juilliard, was the first American to win first prize at the Interna-
tional Chopin Competition in Warsaw (October 1970). Thus he joins a distinguished list of names who have won in past years, including
Martha Argerich, Maurizio Pollini, and (a second-prize winner in 1955) Vladimir Ashkena-
zy. The finals of the competition, which is held
ey every five years, are always recorded, and that
is what we hear here. It is not difficult to sense
the excitement of the event; the audience is
wildly enthusiastic (the applause is well cap-
tured!), and one can understand why. The
performances are not note-perfect; what
emerges instead somewhat clattery. This is
partly the fault of a too close-up microphone
placement, otherwise the piano reproduction is
remarkably good. The Scherzo No. 4, which
completes the first of these two discs, is first-
class.

The second disc features the Chopin E Mi-
nor Concerto; it is not as breathtaking a per-
formance as Martha Argerich’s of five years
earlier (the prize-winning one, recorded in
Warsaw, not the equally exciting later studio
version with Abbado). Yes, in spite of a per-
functory and weak accompaniment, an ill-
sounding start, and a tendency to stress filigree
over line, Ohlsson is impressive. The finale,
for instance, has great immediacy, and one
feels at the conclusion like joining in the ov-
ation. In the last Nocturne, which along with
three Mazurkas fills out the second disc, the
pianist again displays an exciting, passionate,
emotional style of playing. In this respect,
Ohlsson represents a return to an older man-
er of interpreting Chopin, one that
strengthens the advantages of personality, dynamic variety, and color.

RECORDING OF SPECIAL MERIT

ELGAR: Enigma Variations, Op. 36. BRIT-
TEN: The Young Person’s Guide to the Or-
chestra. Op. 34. Philharmonia Orchestra (in
Elgar); BBC Symphony Orchestra, Sir Mal-
colm Sargent cond. SERAPHIM S 60173 $2.98.

Performance: Vital
Recording: Good 1958-1960 stereo

This budget-price coupling of two British or-
chestral classics in variation form is most wel-
come, especially for its finely styled, beauti-
fully controlled performances by the late Mal-
colm Sargent. Sargent’s conducting was never
the last word in passionate romantic expres-
sion, but he brings this kind of expression in
ample measure, and fine pacing as well, to his
reading of the Elgar. Originally recorded in
1960, it is a performance to stand alongside
those of Colin Davis and Arturo Toscanini as
one of the best currently available.

It was Sargent who made the first recording
of the popular Britten Young Person’s Guide
just after World War II, with the Liverpool
Philharmonic Orchestra. His 1958 recorded
performance with the BBC Symphony has the
same splendiferous zest and effective pacing.

Despite the dates of recording, neither of
these performances has been issued in this
country before. Though the recordings are
more than a decade old and lack the immedia-
cy of impact of the best of today’s, the sonic
ambiance as such is remarkably honest. The
clarity of texture in the fugal finale of the Brit-
ten is especially noteworthy. All told, this disc
is a top-value item.

D.H.

RECORDING OF SPECIAL MERIT

GRANADOS: Goyescas. Aldo Ciccolini (pi-
ano). SERAPHIM S 60178 $2.98.

Performance: Excellent
Recording: Excellent

Enrique Granados went down with the Essex
in 1915 on his way home to Spain from the
premiere of his opera Goyescas at the Metro-
politan Opera in New York. That work has
long since disappeared but the piano suite or
cycle of the same name (and inspiration) has
shown a surprising vitality. Granados, essen-
tially a superior salon musician with a Spanish
flair, produced a great volume of keyboard
music of the species one encounters nowadays
in old volumes of “Music All the World Loves.” Most of it is no more authentically
Spanish than the similar efforts of composers
like Moszkowski or Chabrier and scarcely
more durable than dozens of forgotten Haban-
eras and Spanish Dances. Therefore, it comes
as something of a surprise to me to discover
that, without any great pretensions, Goyescas
contains music of great dignity and scope. Gra-

(Continued on page 88)
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JOSEF HOFMANN:
The Camp Wigwam Concert
By ALFRED SIMON

It is not very well known even to piano devotees that during the Thirties and Forties the great Josef Hofmann spent many summers at, of all places, a camp for boys near the small village of South Waterford in Maine. The reason for these unlikely rustications is that Hofmann, who was enormously shy and retiring, welcomed the beautifully situated spot as an ideal retreat both from the city and from professional pressures. His host was his close friend "Mandy" (who could also be called Abraham Mandelstam, but only if you barely knew him). Mandy, co-director of the excellently run Camp Wigwam, was a genial, complex, and above all marvelously generous character: his greatest joy was playing host, both in Maine and at his New York City apartment, to such widely diversified celebrities as Albert Einstein, Edward G. Robinson, Frank Loesser, and Carol Channing. But nothing gave Mandy more pride than telling his friends that Josef Hofmann was an almost annual visitor at Wigwam ("and for the whole summer, too!").

Having myself been first a camper and then a music counselor at the camp in other years, I was often invited by Mandy to spend vacations there from my work at New York radio station WQXR. Though many of the campers, counselors, and other staff members found Hofmann perhaps a rather different and remote personality, I was fortunate enough, over the course of several summers, to gain his friendship. We would go swimming in the lake in front of his cabin, take short walks, or simply sit on the porch talking. Hofmann, being an avid WQXR listener, and knowing that I was a program executive there, inevitably directed the conversation into pertinent but good-natured quizzes about station policy. "Why don't you play more Mozart?" "Who picks out the music for Symphony Hall?" "Is it really necessary to have all those commercials?" . . . and so on.

Flattering as it was to have this regular personal contact with an artist who was quite literally a legend in his own time, the most unforgettable experience of those summers for me was the unique recital Hofmann gave—at the age of seventy-two—in the main hall of the camp lodge on Sunday evening, August 22, 1948. Hofmann had made it known to the campers that they were going to be present at an important event, that one of the greatest pianists in the world was going to play just for them. Had Hofmann been an outsider designing to play what was then called "long-hair" music for them during a single visit, they would probably have been reluctant to attend, as well as being restless when they did. No such thing. Somehow Hofmann's quietly droop presence in camp all those weeks had made the youngsters aware that he was, indeed, someone very much out of the ordinary. In health to the campers (about 150 of them, ranging in age from seven to fifteen and seated on benches, folding chairs, and the floor), the audience consisted of forty or fifty counselors strategizing to shush possible noisemakers, plus other staff members, a few townspersons, and a reporter or two from the Portland newspapers.

Shortly after eight o'clock, in walked Josef Hofmann, sporting a gray flannel shirt open at the collar, slacks, a topecotl slung over his forearm, and carrying a large flashlight—a necessity, since the path between his cabin and the lodge was unlighted. After depositing the topecotl and flashlight on a nearby shelf, he was seated at the concert grand (Wigwam was well-appointed) while taking a few wide, quick swipes at the moths and other insects attracted by the ceiling lights. Not in the least flustered by what might have turned out to be a major nuisance, he immediately launched into a program surprisingly adult for his audience. First was Schumann's Faschings-Schwall aus Wien, next, a Chopin group, including the Impromptu in A-flat Major, a Nocturne in E-flat Major (Op. 5, No. 2), and the A-flat Waltz (Op. 42); then the Melody in F (probably much more familiar to youngsters of those days as Welcome, Sweer Springtime) by Hofmann's teacher, Anton Rubinstein; and finally Liszt's Mephisto Waltz. Finally? The Liszt showpiece, so brilliantly performed, brought down the house with thunderous applause, cheers, piercing whiskles, and cries of "More! More!" The encore was Moszkowski's Caprice Espanol—but one wasn't enough, so then, in turn, Chopin's Military Waltz, Alt Ween (by Leopold Godowsky—not only Hofmann's very cherished friend, but himself a frequent visitor at Camp Wigwam), Chopin's Military Polonaise, and Moszkowski's Giulietta. By this time it was past nine o'clock, the usual curfew hour for the camp bugle to sound "taps.

Altogether, quite an extraordinary event for many reasons: the delightfully informal atmosphere, Hofmann's easygoing excellence and casual garb, his choice of music, the amazingly rapt attention of all those normally active boys, and, above all, their great enthusiasm. Even the moths loved it; the amazingly rapt attention of all those weeks had made the audience consist of forty or fifty counselors strategizing to shush possible noisemakers, plus other staff members, a few townspersons, and a reporter or two from the Portland newspapers.

IT is not very well known that Hofmann, who was fortunate enough, over the course of many of the campers, counselors, and others of those days including the Chopin group, including the Impromptu in A-flat Major, a Nocturne in E-flat Major (Op. 5, No. 2), and the A-flat Waltz (Op. 42); then the Melody in F (probably much more familiar to youngsters of those days as Welcome, Sweer Springtime) by Hofmann's teacher, Anton Rubinstein; and finally Liszt's Mephisto Waltz. Finally? The Liszt showpiece, so brilliantly performed, brought down the house with thunderous applause, cheers, piercing whiskles, and cries of "More! More!" The encore was Moszkowski's Caprice Espanol—but one wasn't enough, so then, in turn, Chopin's Military Waltz, Alt Ween (by Leopold Godowsky—not only Hofmann's very cherished friend, but himself a frequent visitor at Camp Wigwam), Chopin's Military Polonaise, and Moszkowski's Giulietta. By this time it was past nine o'clock, the usual curfew hour for the camp bugle to sound "taps." Altogether, quite an extraordinary event for many reasons: the delightfully informal atmosphere, Hofmann's easygoing excellence and casual garb, his choice of music, the amazingly rapt attention of all those normally active boys, and, above all, their great enthusiasm. Even the moths loved it; they behaved beautifully.
as short grace notes, not always a correct interpretation, but overall the renditions are so skillful, virtuosic, and expressive that the recording can be most enthusiastically recommended. The sound reproduction is likewise of the highest quality.

K. E.

HAYDN: Symphonies Nos. 97, in C Major, and 98, in B-flat Major (see Best of the Month, page 78)

HINDEMITH: Symphony—Mathis der Maler (see LOTUSLAWSKI)

RECORDING OF SPECIAL MERIT

HUSA: String Quartets Nos. 2 & 3. The Fine Arts Quartet. EVEREST 3290 $4.98.

Performance: Excellent

Recording: Excellent

Karel Husa was born in Prague in 1921 and educated in Paris. For many years he has taught and conducted at Cornell University, but, by and large, his work has remained little known in his adopted country. The surprise award to him of the 1969 Pulitzer Prize for his Third String Quartet did little to dispel this obscurity, probably because these prizes have long since lost credibility. However, I am happy to report that, in spite of its award-winning status, the quartet is a strong, attractive work. Like the Second Quartet on the overside, this is vigorous, energetic, eclectic music, very much in the Bartókian tradition.

Fifteen years separate the two works and, in theory at least, the later piece, written in 1969, contains serial elements. Empirically, however, the two pieces belong to the same category: good, modern music, made well and full of ginger. Both pieces are exceptionally well performed by the Fine Arts Quartet, and the really excellent recording has striking presence.

E. S.

KAHALEVSKY: Violin Concerto (see WIENIAWSKI)

LISZT: Mass for Four-Part Male Chorus and Organ. "Szekszard Mass"; Four Sacred Male Choruses. József Reni and Sándor Falcos (tenors); György Melis (baritone); József Gregor (bass); Gábor Lehoioka (organ); Male Chorus of the Hungarian People's Army, István Kis cond. HUNGAROTON LPX 11447 S5.98.

Performance: Good

Recording: Spacious

This is the second in a series of recordings of the choral works of Franz Liszt made and issued in his native Hungary. Liszt's extraordinary output includes no fewer than five Masses, of which this is both the first and the last. Originally written in 1848, it was revised in 1869 for the dedication of a church in Szekszard, Hungary. The planned performance did not come off, and, along with most of Liszt's other religious choral music, this Mass has remained obscure. In truth, it is a hybrid work with beautiful and characteristic things, and with stretches of utter boredom (notably the "Credo", of which, one imagines, Liszt did not believe a word). The sound of the male chorus palls after a while, and matters are not helped much by the composer's timid use of the organ or by the generally careful, dull (I almost said listless) performance.

Liszt achieved a simple, religious form of expression more easily in the short hymns, of which four are recorded here, notably the

On November 29, 1887, Josef Hofmann, a boy of eleven, made his American debut as a pianist at the Metropolitan Opera House. Fifty years later, on November 28, 1937, in the same auditorium, he played his Golden Jubilee Concert. By all accounts the first occasion must have been an extraordinary one, but we can only read that, in spite of his age, the child was already an accomplished artist. With his fifteenth anniversary concert, we are more fortunate, for through the auspices of the International Piano Library we can now hear, on four long-playing sides, that historic celebration complete—Hofmann at the height of his powers.

The album includes a facsimile of the 1937 program, and it makes fascinating reading. First of all, everybody who was anybody was there—not only the cream of the musical world but of society as well. Then there was the orchestra, billed rather over-simply as the Curtis Student Orchestra (Hofmann was then the director of the Curtis Institute), which accompanied the pianist in Anton Rubinstein's D Minor Concerto and his own arsstrident Chromatic (part Praktett, part Rachmaninoff), and led off with the Brahms Academic Festival Overture. The 'student orchestra' on this occasion also included members of the Philadelphia Orchestra and reads almost like a who's who of orchestral players (Hofmann, Tabuteau, Bloom, et al.). The conductor was Fritz Reiner. On the record itself, after the Brahms, a cracking performance, Walter Damrosch comes out to deliver a dignified yet warm introduction, and then we finally hear Hofmann in the Rubinstein Concerto, an interpretation that might cause some who do not rank this work with the best of the late-Romantic piano literature to reflect that it has just lacked the right interpreter to make its proper effect. These solos to come, though, are what everyone has been waiting for—the moment when the magic of Hofmann's style really can be heard to clearest advantage. First there is a Chopin group: the first Ballade, an early Nocturne, a stunning rendition—Hofmann at his greatest—at the age of fifteen years. 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sweet "Ave maris stella" and the highly original "Ossa arida, audite verbum Domini" (roughly, "Oh dem dry bones, now hear the word of the Lord"). The recording has spacious sound, but it would have preferred more presence and more punch all the way around.

E.S.

**RECORDING OF SPECIAL MERIT**


Performance: Excellent

Recording: Excellent

Lutoslawski's Concerto for Orchestra is a remarkable work in many ways. It was one of the first pieces out of post-war Poland to attract international attention, and it stands out as a particularly attractive example of a genre that must, one supposes, be referred back to the Bartók Concerto. There is, however, no sense of imitation or, except in the vaguest general sense, of Bartokiana; indeed, one is hard put to pinpoint influences—Hindemith? Janáček?—at all. This is apparently the only work to survive a generally disastrous period of "socialist realism" and second-rate neo-Classicism in post-war Poland, and, in fact, its composition shortly precedes the wholesale conversion of modern Polish music to ultra-avant-gardism—a change-of-life led by Lutoslawski himself!

This Concerto is, quite simply, one of those pieces that comes from nowhere (well, almost) and leads nowhere, but creates its own coherence and inner message. It is, briefly stated, an extraordinarily attractive and imaginative work which finds a perfect form to express its own qualities of invention.

Part of its success here is, no doubt, because of the excellent performance and recording. I have always liked the balance between clarity and tonal quality that London engineers so often achieve in their orchestral recording, and this is a particularly felicitous example. The Hindemith Mathis der Maler is a not inappropriate overside—it is, surprisingly, side two in this pairing—and the performance is only a trifle less impressive.

E.S.

**RECORDING OF SPECIAL MERIT**

Mahler: Symphony No. 1, in D Major. Chicago Symphony Orchestra, Carlos Maria Giulini cond. ANGEL S 36047 $5.98.

Performance: First-rate

Recording: Excellent

The Chicago Symphony has been and remains right at the top among world-class orchestra orchestras. The Mahler First and Giulini both seem good choices to bring out the orchestra's solid virtues. This is strong, rich playing in a good tradition: Romanticism without tears. And the strength and brilliance of the playing and orchestral sound is marvelously captured by the Angel engineers. The musical qualities of this record are excellent enough, but its sonic virtues put it right up there with the finest of orchestral recordings—a model of how it should be done! Alas, perfection is apparently not to be permitted to us mortals without difficulties: the quality of the pressing sent for review was mediocre. I hope the general run will be better.

E.S.

**RECORDING OF SPECIAL MERIT**

Mozart: Sonata in A Major (K. 331); Sonata in F Major (K. 332). Rosana Maria Martins (piano). CONNOISSEUR SOCIETY CS 2018 $3.98.

Performance: Superb

Recording: Excellent

Rosana Maria Martins is a young Brazilian pianist who has made some reputation in South America and Europe. If the album cover and contents are not a snare and a delusion, she is a pretty nifty-looking girl and an even niftier Mozart pianist. The playing is delicate, sensitive, expressive, and, save for a rushed appoggiatura or two, full of style and spirit. The recording, although apparently not Dehnbizet, is in every other respect a model of what keyboard recording should be.

E.S.

**RECORDING OF SPECIAL MERIT**

Haydn: Sonatas (see HAYDN: Sonatas)

Herbert von Karajan's new recordings with the Berlin Philharmonic of the last six Mozart Symphonies are a severe disappointment. A few of these he had already recorded with the Vienna Philharmonic and the Philharmonia Orchestra, and I wish I had them in my library for comparison. Speaking of the present set, however, I can only wonder that a conductor of his stature, and one with so much technical mastery, could veer off in some of the interpretive directions he has taken.

Hearing this recorded set of symphonies, I'm forced to one of two general conclusions: (1) Karajan is so steeped in the sound of opera that he cannot free himself from the theatrical ambiance even when he wants to, or (2) he considers that Mozart's operas were really the matrix of his musical style and substance, and that his absolute music, in performance, should be patterned after them. If the first conclusion is correct, he deserves condolences for his occupational deformation; if the second, I disagree.

There are a great many examples scattered through these performances of the operatic ambiance pushing its way (inappropriately) to the fore. The second movement of the "Jupiter" Symphony, as just one instance, sounds as if it were coming from the pit of an opera house, either presaging or accompanying an act, or else the orchestra's ambiance even when he wants to, or (2) he considers that Mozart's operas were really the matrix of his musical style and substance, and that his absolute music, in performance, should be patterned after them. If the first conclusion is correct, he deserves condolences for his occupational deformation; if the second, I disagree.

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Mozart, but he was dead before most of them were born. Only a conductor who has made an immense interpretive mistake could veer between the shades of Brahms, Schubert, and Beethoven in playing the slow movement of the "Prague" Symphony (for a second, even Wagner showed up!) of this is a resoundingly Karajan's constant, gliding, ice-skating legato, demanded especially of the strings and woodwinds, and in dotted (non-legato) passages as well as undotted ones. Such constant, nonmetrical syncopation (sliding into the beat and clanging past it) makes surfaces very smooth. It also thickens lines and erases textural contrast, while adding unneeded weight and a special brand of enrichment to everything. That special richness belongs to music of the nineteenth century sometimes, but never to that of the eighteenth. In the latter, it shows up simply as a self-indulgent conductor's personal mannerism. In these performances, it calls up a very precise and accurate word: Kitzch. L.T.

RECORDING OF SPECIAL MERIT

PAGANINI: Violin Concerto No. 3, in E Major. Henryk Szeryng (violin); London Symphony Orchestra, Alexander Gibson cond. PHILIPS 6500 175 $5.98.

Performance: Crystalline Recording: Good

Though the standard music encyclopedias appear to insist on the existence of only two Paganini violin concertos—the familiar First in E-flat (1817-18) usually played as D Major and the Second in B Minor with the famous "La Campanella" finale—the record catalogs indicate otherwise. The Fourth in D Minor (1829) was recorded by Arthur Grumiaux shortly after its publication was made possible through the re-uniting of the long-lost solo part with the existing one for orchestra (Columbia has recently issued a new recording of it by Ruggiero Ricci). Number 5 in A Minor (1836) found its way onto records (Decca and Musical Heritage Society) after Federico Monpiello, in 1959, devised an orchestral part to go with the surviving solo part. We have for the first time on records, the Third Concerto in E Major (1826) to complete the series.

The music has less dramatic substance than that of the Fourth Concerto, but it is full of fantastic violinistic fireworks, not to mention good tunes—many of a decidedly Rossinian cut. The first movement's opening ritornello sounds like an amalgam of Rossini overtures, complete to the pizzicato beginning of Italiana in Algeri! The slow movement is languorously lyrical, and the finale is a sparkling polonaise with superb stentorian work for the soloist and a razzle-dazzle finish.

Though Henryk Szeryng's violin tone is leaner than Ricci's, he is a marksmen second to none in handling the intonation problems posed by Paganini's infrequent passage work and harmonics. The orchestral back-up work is ably taken care of by Alexander Gibson and the London Symphony, and the recorded sound is fine. D.H.


Performance: Mostly very good Recording: Somewhat over-reverberant

Not since Ginette Neveu, whose career was cut short by a plane crash in 1949, have I heard a woman violinist of such blazing temperament as Wanda Wilkomirska. The Grieg C Minor Sonata, that most effective of the Norwegian master's major chamber works, has had no recording in the American catalog since Andre Gerlett's deleted Westminster disc. In it, Wilkomirska allows herself full rein. The young Brazilian-born pianist Antonio Barbosa, whose previous work has long been an exciting venture in music not usually heard, here provides a piano that is full of the electric immediacy that can only be heard in the music itself, and in the process captures the essence of the spirit and the style of the music.

The sonata is full of the razzle-dazzler of them all for this score. My guess is that the tighter acoustic ambiance of the Los Angeles Music Pavilion created problems in organ-orchestra balance that were more easily handled in the open spaces of Boston's Symphony Hall. In any event, I prefer...

(Continued on page 96)
The most logical choice for a compact, powerful control amplifier is the new Dynaco SCA-80Q. The SCA-80Q not only is a one-piece stereo preamplifier and power amplifier, but it includes built-in Quadraptor™ circuitry for 4-dimensional stereo. No decoder is required.

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dynaco inc. 3060 JEFFERSON ST.. PHILADELPHIA, PA. 19121
Munch's pacing of the finale, which has just the right combination of sostenuto and momentum to keep the excitement going to the end. D.H.

SCHUBERT: Symphony No. 4, in C Minor ("Tragic"); Symphony No. 5, in B-Flat Major. Vienna Philharmonic Orchestra, Istvan Kertesz cond. LONDON CS 6682 $5.98.

Performance: Big-scale
Recording: Solid

These are heavy, authoritarian—not authoritative!—performances. We get the worst of both worlds: bulky big-orchestra sound along with chug-chug express-train "neo-classicism." The playing and the recording are good, and the whole thing is a kind of tour de force, but a tour de finesse would be somewhat more appropriate. This one's a no-no. E.S.


Performance: Excellent
Recording: Fair

Perhaps, in the interest of true objectivity, critics ought to state the circumstances under which their reviews were written. You can imagine the sort of thing I mean: "Weather: hot and muggy, outrageous hit from the plumber; Gertrude left for her mother's this morning; slight case of indigestion after supper; didn't much care for Schnabel's Beethoven.

Well, these Scriabin sonatas were listened to, and this review written, on a stormy country day: darkness at noon, thunderstorms rolling up the bay, the music punctuated by flashes and crashes, buckets of rain on the roof and time out for power failures. "Boy," volunteered a young beach swimmer after the fourth soggy hour of enforced Scriabin, 'isn't the weather creepy enough without all that creepy music?"

Good weather or bad, Scriabin's music is sort of creepy, and the larger the dose, the creepier it gets. These seven sonatas, written in the decade between 1903 and the composer's death in 1913, constitute major landmarks of early modern music, as original and revolutionary in their way as anything by Stravinsky or the Viennese. Indeed, except for Debussy, Scriabin was probably the most original composer in Europe in the first years of the century; the Fifth Sonata, written in 1907, easily tops anything that Schoenberg had attempted in its tonal and rhythmic freedom and expressionist intensity. With each succeeding piece the vision becomes still more intense, more unbearable: tumultuous, exalted, vertiginously, with luminosity, ecstatic, mysterious, strangely, careening wave, the dream takes form, terror surges up, a mysterious call, joyous, triumphant, with exalted joy, delicious dance, with celestial voluptuousness, with a vibrantly luminous spirit—Scriabin's own performing directions suggest the intended character of his music far better than any poor adjectives a critic might summon up.

Each of these sonatas is a striking, ingenious, and evocative work, but six or seven of them in a row produce a bad case of progressive musical and spiritual indigestion—the "Scriabin creeps," my young friend might call it. Too many augmented and diminished chords, too much pedal, too many spiritual orgasms. All the pieces are alike: heaving fragments sliced out of the great Cosmic Sonata of which Scriabin was privileged to have been able to overhear a few bars.

Taken in small doses—i.e., one sonata at a time—the extraordinary character of this music can perhaps get through. Even so, a basic problem remains. Many really intense, inward experiences—especially those designated "mystical"—require a certain prior quality of sympathetic belief or acceptance. I suspect that even to the current mystical-religious-minded generation, Scriabin's turn-of-the-century, post-Wagnerian, Russian-mystical, chromatic-neo-romantic throbbing is not likely to produce much in the way of sympathetic vibration.

Still, this is remarkable music, and it is strikingly performed by Roberto Szidon. The young Hungarian-Brazilian pianist realizes the wave-like motion and intense dynamic of this music brilliantly. On the other hand, a bit more clarity in the playing and recording might have helped counteract a bit that vague, sinking-into-the-morass feeling that Scriabin's music tends to produce after a while. E.S.

RECORDING OF SPECIAL MERIT

SIBELIUS: Kullervo—Symphonic Poem for Soprano, Baritone, Male Chorus, and Orchestra, Op. 7; Kuolema—Incidental Music, Op. 44; Nos. 3 and 4. Scene with Cranes; Swanwhite—Incidental Music, Op. 34; No. 2, The Harp; No. 3, The Madens with the Roses; No. 4, Listen, the Robin Sings; No. 5, Swanwhite and the Prince. Ralf Kossja (soprano); Ukko Vitanen (baritone); Helsinki University Male Voice Choir; Bournemouth Symphony Orchestra, Paavo Berglund cond. ANGEL SB 3778 two discs $11.96.

Performance: Thrilling
Recording: Superior

SIBELIUS: Kullervo—Symphonic Poem for Soprano, Baritone, Male Chorus, and Orchestra, Op. 7. Liisa Linno (soprano); Matti Lehtinen (baritone); Helsinki City Symphony Orchestra and Male Chorus. Jussi Jalas cond. SATURNAR SJ-101 two discs $12.00 postpaid. (Private recording, available from Satur-nar Records, P.O. Box 493, Planetarium Station, New York, N.Y. 10024.)

Performance: Authentic
Recording: 1958 off-the-air mono

April 29, 1892, was a day of destiny in the musical life of what at that time was the Russian grand duchy of Finland. It was the date of the premiere in Helsinki of the epic Kullervo by the twenty-seven-year-old Jean Sibelius, who directed the performance himself. From that day the career of the then unknown but promising composer was virtually predetermined, at least in terms of his becoming a national culture-hero, eventually to be recognized such throughout the world.

For all the furor that the tragic work inspired by the Kalevala aroused among its first hearers, Sibelius never allowed the score to be heard again in its entirety, though in his last years he spoke of making revisions. Until the recent concerts preceding Paavo Berglund's recording under review here, Kullervo had never been performed outside Finland, though a tiny and powerful bit of it, Kullervo's Lament, was recorded by Tom Krause (London OS 26030).

(Continued on page 104)
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- KHAN: Raga Chandranandan (excerpt) + RODGERS: Roman Carnival
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The score stems from a somber Kalevala tale of a blood-feud, in which the orphaned and enslaved lad Kullervo makes good his escape, eventually finding his supposedly slain mother and father. The dark and faultless Kullervo's background and early days are evoked in the orchestral Introduction and Kullervo's Youth. Both are full-scale symphonic movements, rather sprawling but strong in thematic substance and thoroughly competent in developmental recollection. But it is in the third movement, Kullervo and His Sister, for soprano, baritone, and chorus, that we come face-to-face with genius. From the first bars, depicting Kullervo setting forth in his sleigh, the method is unmistakable, and with the entry of the chorus and then the soloists we understand the essence of the Sibelius idiom in its special aspect of turning Finnish-language speech-rhythm to the most powerful dramatic effect. The tragic ending of the Kullervo tale is set forth by Sibelius with elemental power, with the main theme of the introduction returning as symphonic capstone to the whole.

The Helsinki City Symphony Orchestra as of 1958 was no ensemble, to judge from the occasional bits of unsteady string and woodwind intonation that crop up in the recording of the festival broadcast, but there is no mistaking the vocal eloquence of Matti Lehtinen and of Liisa Linko, nor to mention the power and precision of the fine male chorus. Conductor Jalas is endowed with a powerful dramatic and architectural sense, which he brings into full play throughout the performance. Unhappily, the recording itself leaves much to be desired by contemporary standards. Much orchestral detail is lost as a consequence of "on location" mining, and there is an obtrusive hum.

Thanks to the imagination of someone at EMI in London, the 1970 visit of the Helsinki University Male Voice Choir to Bournemouth and London for the first performances of Kul- lervo outside of Finland was seized upon as the perfect occasion for getting the score properly recorded under the direction of Paavo Berglund, chief conductor of the Finnish Radio and, in my opinion (based on "live" concert hearings), the best of Finland's younger maestros.

The recording locale in the Southhampton Guildhall has provided an absolutely ideal ambiance for the huge tonal vistas of Sibelius' epic scope, and the EMI recording team has come through with results wholly comparable to the best of its major British, German, and Dutch competition.

The fourth side of this Kullervo recording offers some charming chips from the Sibelius workbench in the form of beautifully played theater-music excerpts—in the one instance from Strindberg's fairy-tale play Swanwhite, and in the other from Kuolema (Death), a 1903 drama by Arvid Järnefelt, Sibelius' brother-in-law. The first number from the latter incidental score was one that made Sibelius a household name throughout the world—Valse triste.

D.H.

RECORDING OF SPECIAL MERIT


Performance: Brilliant

Recording: Powerful

As a young man of twenty-four, Rafael Kubelik, in 1938, made his commercial recording debut conducting the Czech Philharmonic Orchestra in The Moldau and From Bohemia's Meadows and Forests. The performance, its special aspect of turning Finnish-language speech-rhythm to the most powerful dramatic effect. The tragic ending of the Kullervo tale is set forth by Sibelius with elemental power, with the main theme of the introduction returning as symphonic capstone to the whole.

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Everything that one sensed buried in the sonic murk of the broadcast recording springs to pulsating life under Mr. Berglund's baton. The Bournemouth Symphony musicians play their hearts out, the Finnish soloists are, if any-thing, even more eloquent than their colleagues the previous September in the age of ninety-one, and it is this performance which is preserved on the privately issued Saturnian discs.

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gone to his rest in Venice. Since I'm reviewing from an advance copy of this Seraphim disc, I have no information on the date of the original release. I would, though, based on the rather antique sonic stances and on the weariness of Stravinsky's interpretations, that the recordings date from quite far back (the Thirties). There is none of the astringency that came to be associated with Stravinsky's music over the years, thanks in part to his verbal insistence on authenticity, which is all the more reason to notice Philharmonia's Royal Philharmonic Orchestra, James L. and occasionally overmatched by the torrential singing that is bright and appealing in tone.

The Rodrigo of Sherrill force, given to considerable tonal unsteadiness (particularly in the Roman- odes and occasionally overmatched by the torrential singing that is bright and appealing in tone.

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CIRCLE NO. 4 ON READER SERVICE CARD

107
RECORDING OF SPECIAL MERIT

WAGNER: Lohengrin. Ludwig Hoffman (bass), King Henry, Franz Volker (tenor), Lohengrin, Maria Muller (soprano), Elsa, Jaro Prohaska (baritone), Telramund, Margarete Klose (contralto), Ortrud, Walther Grossmann (baritone), Herald. Chorus and Orchestra of Berlin State Opera, Robert Heger cond. PREISER @ LOH four discs $29.95.

Performance Excellent. Recording: Dated sound.

Though I have great admiration for the Austrian Preiser label (producer of many historical reissues of outstanding quality which are available here through a number of specialty shops), I approached this Lohengrin with some apprehension: can anything accomplished or perpetrated in the Berlin of 1943 be worth preserving? Well, this may be one of the exceptions. There are no explanatory notes with the set, but it is apparent that it is a radio broadcast of a "live" performance. (Stage movements are carefully noted and noticeable, though the applause has been edited out.) The orchestral sound betrays its age, all choral maximes are distorted, and the "presence" of the singers is variable according to their changing relationship to the microphone. But listeners tolerant of such shortcomings will be rewarded with a Lohengrin that no modern recording has equaled.

The cast consists of eminent Wagnerians who were the Bayreuth idols of that distasteful era. Even if they were all past their prime by 1943, individually and collectively they are a formidable group. Franz Volker (forty-four at the time) is an ideal Lohengrin: manly yet tender, a singer of intelligence and poetic imagination. The Elsa of Maria Mûller (forty-five) is more womanly than the character we are likely to encounter in most portrayals. But her interpretation is believable in its totality, and attractively vocalized, with a particularly affecting "Euch Lüften." I have never heard a more commanding Ortrud than the sumptuous-sounding, thoroughly evil realization of Margarete Klose (forty-one) in this performance, and although the tones of Jaro Prohaska (fifty-two) reveal some fraying, there is depth and authority in his Telramund. Ludwig Hofmann (fifty-eight) is also less than perfect vocally, but he is in admirable command of King Henry's wide-ranging music, and the natural flow of his declamation is a model. In general, the clarity of pronunciation and a really impressive attentiveness to textual nuances are among the many outstanding qualities offered by this exceptional cast.

It is not fair to judge conductor Robert Heger (then fifty-seven and now the only survivor among the principal artists) on the basis of an orchestral sound that is far below the current standard, but he maintains a fine ensemble throughout, never allowing the music to drag, and, as a matter of fact, provides constant forward momentum by pointing up such dramatic turns as the score affords. There are some choral imprecisions, and the brasses of the stage band are not the best imaginable, but such things must be expected in a "live" performance. High-fidelity champions should not touch this set with a ten-foot pole; connoisseurs of toponymic Wagnerian singing will find it cherishable in spite of its badly outdated sonics.

GJ

WAGNER: Parsifal. Thomas Stewart (tenor), Amfortas; Karl Ridderbuch (bass), Ti-turel; Franz Crass (bass), Gurnemanz; James King (tenor); Parsifal, Donald McInerney (baritone), Klingoro. DEUTSCHE GRAM- MOPHON DGG 2173 004 five discs $34.90.


For totally committed Wagnerites, Parsifal is the cumulative summation of the Master's artistic principles and a music drama expressive of the sanctity of religious rituals. It is fair to establish at the outset of this review that my commitment to Wagner falls several degrees short of total. I turn to his music with an enthusiasm that knows its bounds, and rarely are these bounds reached more quickly than they are during the four hours of Parsifal. But even Wagnerian nonbelievers will not deny that Parsifal contains vast stretches of noble, beautiful, and enchanting music that displays a supreme mystery of vocal and orchestral writing. So, though unmoved by the work's complicated and insincere religiosity, wary of its symbolism, tortured by its poetry, and regretful of its excessive length, I address myself in this review to the work's inextinguishable musical values.

Bayreuth was the scene of DGG's new recording, just as it had been in 1951 and 1962 when previous Parsifals were recorded at the Festival for London and Philips, respectively, under the leadership of Hans Knappertsbusch. In the present recording, taped in 1970, the conductor is the brilliant and almost always controversial Pierre Boulez. His way with the score has the value of transparency, an almost delicate quality one seldom associates with Wagner. But, to gain his clear textures, Boulez must sacrifice the lushness of sound we have learned to admire in the Wagnerian readings of a Knappertsbusch or a Solti. There is an unquestionable inner logic in Boulez's reading, and he knows how to build impressive climaxes. What his interpretation lacks, for my taste, is sustained grandeur and noble lyricism. And though he is always considerate of his singers in matters of dynamics, his frequently matter-of-fact and even hurried pacing inhibits their expressiveness.

In particular, James King would have benefited from a conductor who could have coaxed more expressive nuance from him, though his Parsifal is sung with taste and firmness of tone, except for a rather strained "Nur eine Waffe". By contrast, Thomas Stewart sings Amfortas with dignity and eloquent passion, and although his tonal strength by not pressing for volume, he is in admirable command of his Parsifal role. And although the voices are no longer as firm, his singing never loses its agreeable cantabile quality, and he rises to many of the roles in the Good Friday Scene. In the smaller role of Gurnemanz, Karl Ridderbuch is excellent.

Her good dramatic instincts notwithstanding, Gwyneth Jones is a disappointing Kundry, displaying a frequently shrill tone and a pronounced wavering in the upper midrange. These failings, alas, make her a vocally rather unalluring temptress in Act Two. As Klingoro, Donald McInerney has the required malevolence but not the steady "singing" quality imparted to this fascinating role by its previous recorded interpreters, Hermann Uhde (1951) and Gustav Neidlinger.

(Continued on page 112)
No need to Compromise
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Columbia Records
Popular
Lynn Anderson, Rose Garden
Blood, Sweat and Tears II
Johnny Cash at San Quentin
Chase
Ray Conniff, Love Story
Al Cooper, Mike Bloomfield & Steve Stills, Supersession
Miles Davis, Bitches Brew
Bob Dylan, Nashville Skyline
Percy Faith, Romeo and Juliet
Funny Girl, Original Sound Track
Janis Joplin, Pearl
Kris Kristofferson, Silver-Tongued Devil and I
Johnny Mathis, You've Got a Friend
Jim Nabors, Help Me Make It Through The Night
No, No, Nanette, Original Cast
Poco, Deliverin'
Ray Price, For the Good Times
Raiders, Indian Reservation
Santana, Abraxas
Sly and the Family Stone, Greatest Hits
Ray Stevens, Greatest Hits
Barbara Streisand, Stoney End
Ten Years After, A Space in Time
Andy Williams, Love Story
Tammy Wynette, We Sure Can Love Each Other

Classical
Bach, Switched-On Bach (Carlos)
Bernstein, Mass (Bernstein, Original Kennedy Center Cast)
R. Strauss, Also Sprach Zarathustra
(Morten Subotnick, Touch
Verdi, Requiem (Bernstein, Arroyo, Veasey, Domingo, Raimondi, London Symphony)

Vanguard Records
Popular
Joan Baez, Blessed are...
Larry Coryell, At the Village Gate
Country Joe and the Fish, From Haight-Ashbury to Woodstock (2 LP)
Buffy Sainte-Marie, Moonshot
Classical
"P. D. Q. Bach,"
The Stoned Guest (Schickele)
Berlioz, Requiem (Abravanel, Utah)
Handel's Messiah (Price, Minton, Young, Diaz, Somary, English Chamber Orch.)
Handel, Messiah highlights
Mahler, Symphony No. 3 (Abravanel, Utah)
Mozart, Divertimenti K287/138 (Blum, English Chamber Orch.)
Tchaikovsky Symphony No. 4 (Stokowski, American Symphony)
Tchaikovsky, Serenade Op. 48; Prokofiev, Classical Symphony;
Arensky, Variations (Somary, English Chamber Orch.)
The Virtuoso Trumpet of Martin Berinbaum (Somary, English Chamber Orch.)

Ampex Records
Popular
Anita Kerr Singers Grow to Know Me
Anita Kerr Singers with Royal Philharmonic, A Christmas Story
Bob Hinkle, Ollie Moggus
Melting Pot, Fire Burn and Cauldron Bubble
Mason Profit, Last Night I had the Strangest Dream
Purlie, Original Cast
Cris Williamson
Rome Philharmonic, Classical Movie Themes
The duet from the final act of Poliuto, recorded here for the first time, does not come off with much conviction. Vocally, the long duet from Act IV of Les Huguenots—one of the most impressive pages of Meyerbeer's writing—far outstrips the travesty perpetrated on this music in London's recent complete recording of the opera. Señor Marti's French pronunciation is hard to take, but the music is worth hearing. (Too bad that Nicolai Gedda's attractive wife is not a singer, but perhaps he can be persuaded to record a duet with this regime.)

Since Charles Mackerras has a reputation for fastidiousness, the occasionally uncomfortable tempos and instances of imprecision must be attributed to insufficient rehearsal.

CLASSIC AND CONTEMPORARY TWENTIETH-CENTURY PIANO MUSIC:


Performance: Excellent
Recording: Good

There is a little history of keyboard expressionism on this record. The Op. 11 Piano Pieces constitute Schoenberg's first large-scale atonal work and his Op. 19 Piano Pieces refine these principles down to their aphoristic minimum. Opus 13a is a major example of Schoenberg's first twelve-tone period and one of the last pieces he wrote in Europe. Stefan Wolpe was born in Berlin in 1902, and, after a Palestinian sojourn, came to this country in 1938, where he has been a potent influence in new musical circles although not well known to the general public. The Presse Agitato, written in 1929, shows an early and quite striking Central-European form of Expressionism. The Pastoral of ten years later suggests the simplification of atonality, the choice trends of the Thirties, but not the path of the Bloch-Piatti Form (1939) represents Wolpe's more recent and original style: the musical equivalent of Abstract Expressionism in painting.

Wolpe, like the painter Hans Hofmann, is a good example of an important and original European who developed his own individual and very contemporary form of expressionism in his own country and helped to form a widespread American Expressionist school. Both Howard Rovics and Raoul Pleskov show the strong influence of Wolpe, not only in technical matters, but in the strong fervor, intensity, and conviction that pervade their music.

Anne Chamberlain is a very good pianist, and it is highly desirable that as much of this music get recorded as possible before performers decide—at they will soon—that it is no longer worth the infirmities required. The recording is good, although it has to compete with noisy surfaces.

E.S.


Performance: Excellent
Recording: Very good
Some Pertinent Information on the Smaller Advent Loudspeaker

The original Advent Loudspeaker was designed to equal or surpass the audible performance of any speaker system used in the home, regardless of price. Its reviews, reprints of which we will be happy to send for the asking, indicate how well that objective was met.

The Smaller Advent Loudspeaker has the same audible performance, except that it will not play as loud. Since the original system was and is an unusual bargain at $116*, the newer and smaller system, at $70*, obviously deserves a full description to the prospective buyer. Accordingly, the following questions and answers:

What Is It For, and Just How Good Is It?
The Smaller Advent Loudspeaker is meant to make it possible to buy a complete stereo system in the $400 range, for use in an average living room under the usual listening conditions, that will provide the kind of sound quality associated with the most expensive stereo systems. Specifically, it exceeds the frequency bandpass and freedom from distortion of most far more expensive speakers, and provides the final, lowest octave of bass offered by only a handful of the most expensive speakers—and by none in or near its own price class. It is intended for use with any of the several sufficiently powerful present receivers in the $200-$250 price range (from Kenwood, Marantz, Pioneer, Sansui, Scott, Sherwood, Sony and others) that will deliver 18-25 watts per channel of continuous power into 4 ohms.

How Does It Do What It Does?
The overall sound quality of the original Advent Loudspeaker was achieved in a smaller and less expensive speaker through careful, unmysterious design that gives up some of the efficiency and maximum total loudness of the original, and through the choice of a 4-ohm voice coil impedance that draws about one-third more effective power (from present solid-state equipment) than an 8-ohm design.

A further reason for its lower cost was the selection of a walnut-finish vinyl cabinet of simple design.

Who Should Be Interested In It?
Anyone, we believe, who has a living room of average size (about 2000-3000 cubic feet) and no reason to play music at thunderingly loud levels under normal conditions. The speaker's maximum sound level is considerable (and well beyond what would be considered tolerable in most homes), but not as great as our larger and more expensive system's.

It's worth making clear that there is no real advantage in buying an expensive super-high-powered receiver or amplifier to drive the system, since the speaker is so exactly tailored to the power capabilities of moderately-priced equipment—with which it will sound as expensive as you please. But it's also worth stressing that the moderately-priced equipment for which the speaker was designed may not do the trick in the usual store (big, sound-absorbent, and full of people) where it's demonstrated. If a good receiver in the $200-$250 range sounds strained trying to drive the speaker in a showroom, it is still likely to be more than ample at home. Higher-priced equipment probably will have an audible advantage only in the showroom.

Any Special Limitations?
Because it is a 4-ohm design, the Smaller Advent Loudspeaker isn't ideal for use in multiples at the same time except with 4-channel systems. Specifically, we don't suggest running two main speakers and two extension speakers at high volume at the same time. For quieter, background music applications, two simultaneous pairs should be fine, and, of course, there is no problem in alternating two pairs in different household locations. You just can't play four systems loudly at the same time.

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* Slightly higher in some parts of the country.
The Composers String Quartet is, as its name implies, a performing organization largely (although not exclusively) dedicated to performing new and contemporary works. In collaboration with the New England Conservatory (where they are "in residence"), they recently sponsored a contest for new string quartets. This competition had several unusual aspects; for one thing, the music submitted (or at least a major portion of it) was actually performed for the aural edification of the judges. Surprising as it may seem, this almost never happens in such competitions; usually the lack of time, the unavailability of the proper performing forces, and the presumed ability of the jury to judge from the score rule it out. But the truth is that, because of the complexity of the music, the complexity or newness of the notation, and (yes) the actual lack of ability on the part of the judges, such contests are really decided by chance, neatness of the manuscript, recognition of the names of the composers (or their teachers), or some other equally irrelevant criteria.

At any rate, one can assume that this was not the case here, and the jury has selected—from over one hundred entries—four strong pieces. Only one of them is, in my view, exceptional: Peter Griffith's One String Quartet. Griffith, like the other composers here, is still in his twenties (Pollack was born in 1946, the others in 1943). Like the others, his work shows the strong influences of Elliott Carter and the serialists. And it is in some respects less surely rationalized than the others: it loses its way about three-quarters through and only finds it again near the end. On the other hand, it tries to do more; it is less dependent on its models, and the composer understands that music is a play of energies as well as of abstract planes and volumes. Pollack's work is probably the most accessible of the four (which isn't saying much), and it has character. George Edward's work, the most complex of the four and the most assured technically, depends a good deal on the quartets of Carter for its assurance. Leslie Thimmig's Profiles are a series of short studies realized with varying success. The performances are astounding (about normal for this group), and the recordings make it all quite clear. This music is certainly not for casual listening; indeed, it is rather a surprise to find young composers still trying to solve the intellectual problems posed (and certainly not always solved) by their elders. E.S.

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But when Per makes his case for the Tandberg 3000X, we can’t dispute him, either. After all, if a home recordist doesn’t need professional features like a limiter, stereo echo effects, and peak reading meters that show playback levels, why should he pay for them? Per swears that if he blindfolded Leif, he couldn’t tell the sound of the 3000X from the 6000X.

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BRONKSWICH label. Danise retired from the Metropolitan in 1932 and embarked on a successful teaching and coaching career. He had many pupils, and none more distinguished than his devoted wife, Bidu Sayao.

For those previously unfamiliar with the art of Danise this Operatic Archives release, assembled largely from original Bronswicks and a few accoustical Voice del Padrone items, will be a revelation. The voice was darkly hued, with a remarkable evenness of timbre from top to bottom, and strong in both extremes. He must have been an ideal Lago and Gerard (he sang the role at Andrea Chenier's Metropolitan premiere in 1920), but the more lyrical Ernani aria reveals equal skill, and the Rigoletto excerpts are in the grand tradition. Although a realistic singing actor in the Chaliapin-Ruffo mold, Danise was steeped in the tradition of bel canto, as evidenced by his aristocratic sense of phrasing. Completing the impressive operatic display here is an emotion-filled, powerfully projected Pietà Signore and a home recording of the madrigal Guarda la luna, in which Bidu Sayao and basso Virgilio Lazzari keep the artist company. The technical quality in the latter is below par, but this is the only known example of Sayao and Danise appearing on the same disc.

There is also an extended narration of reminiscences. Among other things, Danise reveals that before breaking into the big time in 1912, at the age of twenty-nine, he had accumulated a record of more than six hundred appearances as a repertory baritone with a touring company. The results of such schooling and experience are clearly audible in this sequence. The disc is warmly recommended to the specialized collector.

G.J.


Performance: Excellent
Recording: Excellent

Deutsche Grammophon, not satisfied with the best of American composers care to go about the world with a "serious-classical" air. "Heliotrope's" liner notes read: "The programming and recording of rags on classical labels signals its acceptance at last as a serious (but not solemn) music." 'Chickens' rather surprised to learn that it's necessary to call rags "serious" music in order to enjoy it. Personally, I've always found its special, old-fashioned, swinging-trotting syncopations quite enchanting enough as "popular" music from grandaddy's day. At this point, however, "serious" or not, it qualifies as first-rate American, and I'm pleased to have it back.

Seven of the ten rags on this recording are revivals from the first decade of this century. Scott Joplin (1868-1917) is represented by three fine numbers (his famous Maple Leaf Rag is on an earlier Nonesuch recording) while Tom Turpin, Joseph F. Lamb, James Scott, and Charles Luckeyeth Roberts are represented by one each. The biggest surprises of the set, however, are Seabiscuits, Graceful Ghost, and Brass Knuckles, written by—guess who—Bozol and Albright! Not only does Bolcom play the old-time rag music with great aplomb, and only an occasional hint of over-civility, but his own ragtime pieces are excellent. Brass Knuckles, written jointly by Bolcom and Albright, contains probably the loudest thumps in rag history, although not being a ragtime historian, I can't swear to that.

L.T.


Performance: Fascinating organs, dull playing
Recording: Excellent

This is another in Telefunken's fascinating series devoted to historic European organs. The first side splendidly reveals the capabilities of a fairly large instrument (forty-one stops, three manuals with pedals) built in the mid-eighteenth century and located in the church of the Augustinian Canons' Monastery in Herzogen- burg, Austria. The second side features the oldest organ in Vienna, one built in 1642, which has only twenty stops, including two manuals and pedals; it is located behind the high altar in the Franciscan Church. The Viennese performer Herbert Tachezi (he is the reg. (Continued on page 118)

STEREO REVIEW
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WERNER KRENN: Schubert and Schumann Songs. Schubert: Trauer der Liebe; Sehnsucht; Das Bild; Die Liebe hat gelogen; Abendbilder; Der Entfernten; Schwangen; Eingang; Stimme der Liebe. Schumann: Anfangs wollte ich fast verzagen; Es treibt mich hin; Dein Angesicht; Du bist wie eine Blume; Lohn dein; Lohn dein; Myrten und Rosen. Werner Krenn (tenor); Erik Werba (piano). LONDON OS 262 16 $5.98.

Performance Excellent. Recording: Excellent

The nine Schubert songs supplement this gifted Viennese tenor's recital debut (London OS 26063) of unfamiliar Schubert; the Schumann entries may seem more familiar at first glance, but they are hard to find on records. The choice of repertoire, then, is praiseworthy, and the execution deserves more than such a lukewarm adjective: it is delightful. The program highlights the singer's considerable gifts: a voice of ingratiating timbre, a style of unman-nered directness and grace, a flowing legato coupled with the agility needed for effortless decoration. Although the primary source of my enjoyment here is the singer's fine vocalism, Krenn is also a successful interpreter within a restrained dramatic frame. An intelligent judge of his virtues and limitations, he avoids venturing into personal zones in terms of range and dynamics. The near-operatic climax of Stimme der Liebe may call for stronger resources, and the compact drama of Die Liebe hat gelogen is rendered with more knowing theatricality by Dietrich Fischer-Dieskau, but Krenn's more modest solutions are never less than fully artistic.

Of the Schumann songs, all to Heine poems, three come from the Liederkreis, Op. 24, three from Myrthen, Op. 25, and two from the Tragödie, Op. 64. For the most part, they are in a tender, contemplative mood, and Krenn performs them masterfully. Die Lotosblume with its lovely mezza-voce conclusion providing special delights. Erik Werba's accompaniments create a worthy frame for Krenn's beautiful singing. I hope this attractive disc will stay in the catalog longer than lieder collections I usually do.

THE SERAPHIM GUIDE TO GERMAN LIEDER. Schuberts: Gretchen am Spinnrade; Erlkönig; An die Musik; Die Post; Die Gretchen auf dem Berge; Schumann: Widmung; Die beiden Grenadiere; Mondnacht; others. Loewe: Erlkönig; Edward: Braums; Sapphische Ode; Die Mai- nacht; Ständchen; Dein blaues Auge; others. Wolf: Nun wandre, Maria, Annaeorens Grab; Auch kleine Dinge; others. Misher: Das Anto- nius von Padua Fischpredigt; Ich atmete einen Linderduft; Um Mitternacht. Strauss: Die Tragodie, Op. 64. For the most part, they are in a tender, contemplative mood, and Krenn performs them masterfully. Die Lotosblume with its lovely mezza-voce conclusion providing special delights. Erik Werba's accompaniments create a worthy frame for Krenn's beautiful singing. I hope this attractive disc will stay in the catalog longer than lieder collections I usually do.

G. J.
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The Harman-Kardon 930. The first receiver with twin power.

CIRCLE NO. 45 ON READER SERVICE CARD
London, for example, would direct the user to Westminster Abbey, the Houses of Parliament, and Buckingham Palace, but not to St. Mary-le-Bow, the Temple, and Hampton Court. To change the metaphor abruptly, a mountain range is not all peaks, and the lied as a genre is not merely the sum total of the works of the great masters from Haydn to Strauss. But perhaps I am being captious: Karl Loewe, a lesser master, is included—a nice touch—and even with the archives of EMI, by far the richest anywhere in lieder recordings, to draw upon, there could have been no more than an isolated example or two of the works of Zelter, Mendelssohn, Marx, Franz, and Pfitzner, to pick a few at random. So what we get are the peaks.

But having disposed of this gripe, another crops up quickly. Does the album supply a rounded view of the peaks? With the best will in the world, it is hard to render a favorable verdict. Things start well with decent though scanty samples of Haydn, Mozart, and Beethoven. But then Schubert looms, and the trouble starts. "Selection of only ten songs to represent the wealth of Schubert's lieder is a frustrating problem," writes George Sponhaltz, the producer, compiler, and annotator of the album, and any sane and charitable person will sympathize with him. But Schubert's range can be better suggested than it is here. Fully half these disc side each—ten songs and nine, respectively—and it is difficult not to conclude that here Mr. Sponhaltz's judgment just caved in to his affections. In the Brahms group are Da unten in Tale, Mein Mädel hat einen Rosenmund, and Vergebliches Ständchen—all attractive songs, but so alike in style and structure that the three together don't tell us anything more about Brahms than any one of them would have. There's a similar overdose of Strauss, and yet the story of Hugo Wolf's scope as a song writer is barely begun by the five samples he is accorded.

But if you close your eyes and pretend the album is called "The Seraphim Lieder Sampler," there are goodies aplenty for a musical sweet tooth. The quality of the performances being obviously a secondary consideration here, it is sufficient to say that the general level is high enough that the uninitiated listener's attention will be held. And many of the performances do leap the gap that separates a mere attractive rendering of the music from a memorable communication of something unique: Janet Baker in Wolf's Herr, was trägt der Boden hier, Hans Hotter in Schumann's Erstes Grün, Dietrich Fischer-Dieskau in Wolf's Anakreons Grab, and Christa Ludwig in Brahms' Sapphische Ode are a few, and there are more.

The album is intelligently planned: to avoid the disconcerting effect of switching from voice to voice with each band, the songs are grouped in twos and threes by singer, and the sonic equalizing of recordings done in different places and different eras (including a couple of monos) is quite successful. The handbooklet contains the texts and good translations by Mr. Sponhaltz, and is illustrated with Biedermeier line drawings that nicely mirror the contents. Mr. Sponhaltz's notes on the composers and each of the songs are adequate and sometimes more, but his introductory remarks are disfigured by two bad errors: Peter Cornelius, who died when Strauss was ten years old, is cited as a composer who has carried on the tradition "since Strauss," and in a list of pre-war singers Igor Kipnis' name is substituted for his father Alexander's.

All in all, even with its shortcomings, I hope the album will find its way into many a record library—those of the converted, because several of the best performances here have never before been released on a domestic label, and those of the unconverted, because it provides an erratic but useful map of the magic-lantern world of the lied.

This release, incidentally, marks the fifth anniversary of the Seraphim label, to my mind the most distinguished of the major record firms' "budget" lines. Its service to the collector has been immeasurable, and I am confident that it will continue to be so through many another anniversary.

Robert S. Clark

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Shure Brothers Inc.,
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CIRCLE NO. 68 ON READER SERVICE CARD
THE BYRDS: Byrdmaniax. The Byrds (vocals and instruments). Glory, Glory; Pale Blue; My Destiny; I Trust; Citizen Kane; Tunnel of Love; and five others. COLUMBIA KC 30640 $5.98, © CA 30640 $6.98, © CT 30640 $6.98.

Performance: Byrds and whey
Recording: Glossy

A lumpish outing, surrounded with sumptuous production, that starts off in one place (clumsy satire like I Wanna Grow Up to Be a Politician) and then meanders around to pretty, empty songs such as I Trust and Tunnel of Love. At times I had a sneaky aperçu that the Byrds had been listening to some old Three Suns recordings, so thick was the choral blend and so innocuous the content. If any mileage is indeed left in the Byrds, I doubt that sweetness and light is the key to their revival. The production is Hollywood super-de-luxe and as booming and meaningless as that implies. P.R.

CHER. Cher (vocals); orchestra. The Way of Love: Fire & Rain; Touch and Go; One Honest Man; I Hate to Sleep Alone; and five others. KAPP KS 3649 $4.98, © K8 3649 $6.98, © K7 3649 $6.98.

Performance: Not in focus
Recording: Fussed over

Sonny & Cher, or at least Cher, have the TV executives at CBS jumping up and down in their Gucci loafers. Their summer replacement series was the hit of the season, and you can expect them soon on the permanent primetime schedule. As TV performers, they deserve their success. Their act, with a few mod embellishments, is in the great vaudeville tradition of, among others, Burns and Allen (with the roles reversed), and they have a hokey but seemingly genuine affectionate-married-couple rapport that transmits itself to the viewers. The act seems to be the almost total creation of Sonny Buono, whose supervision extends even to the choice of Cher’s clothes and fussing over her (pulling strands of hair away from her forehead, picking off imaginary bits of lint, etc.) like any loving husband whose wife is turning into a gold mine under his very eyes.

The latest bit of fussing is the release of this new solo album, ‘Cher.’ From the obligatory Avedon cover photos (his work is beginning to look as dated as the photo-portraits on Good Humor lids) to the perfumed arrangements to the clenched-teeth chic of the choice of repertoire to the Sirensound-soul performances, the album abundantly proves that Cher is a lot more interesting to see than to hear. Watching Cher sing can be fun—probably even if she’s singing something like I Hate to Sleep Alone or One Honest Man included here. There’s a lot to look at: her odd, expressive and striking face; her gestures and movements, which are those of an animated fashion mannequin; her fantastic hairstyles, which remind one of Mother Goldham and her casual projection of a witty intelligence that doesn’t take itself too seriously. It is the sort of thing that Gertrude Lawrence is reported to have been able to do on the stage, and is a precious and indispensable talent of all great cabaret stars. Very little of the album, and I suggest that you listen to it separately, at different times. But do listen to them, Coryell is a real artist. P.R.

SONNY AND CHER
In the great tradition of Burns & Allen

**Explanation of symbols:**
- Reel-to-reel tape
- Four-track cartridge
- Eight-track cartridge
- Cassette

Monophonic recordings are indicated by the symbol ©; all others are stereo
relative to the two guitars on some cuts, but maybe that's the way they wanted it. This group isn't as good as Pentangle and Fortheringay, but it's already better than many other groups. N.C.

BOB GIBSON. Bob Gibson (vocals and instruments); various accompanists. Fog Horn; Sam Stone; Learnin' for the Last Time; For Lovin' Me; A Hard Rain's a-Gonna Fall; and five others. CAPITOL ST 742 $5.98.

Performance: Country dull Recording: Very good

Gibson has been around long enough to attract a lot of admirers. His music comfortably mixes folk with country-&-western, and his easy-listening voice is pleasant enough. Unfortunately, he has an excruciatingly accurate ear for cliché, both musical and verbal. His original pieces are simply abysmal (especially those written in collaboration with Shel Silverstein—author of such enlightening pop songs as A Boy Named Sue). One Gibson original, Easy Now, has both chord changes and melody that seem to have been directly ripped off from Sinatra's hit My Way. Other pieces, filled with unfamiliar liberal political sentiments, are easy enough to agree with—does anyone not think the war is a horror anymore?—but not particularly relevant to the world of 1971. And maybe that's the problem with the whole album.

BARRY GORDON: Pieces of Time. Barry Gordon (vocals and guitar); orchestra. Deluge; Movin' Day; For the Children; Wonders Why; Conversation; and five others. CAPITOL ST 805 $5.98.

Performance: Professional Recording: Glossy

Barry Gordon is the former child actor who was a success as the boy in A Thousand Clowns. Time has passed, and now Gordon makes his adult debut as a composer-performer. Jimmy Webb hasn't got a thing to worry about. Gordon comes across as a very assured, very professional performer singing big, slick commercial ballads in a big, controlled, and equally slick voice. His songs aren't bad, but they seem contrived in a theatrical way that lessens their emotional tension. This is a thoroughly respectable effort in every way, but it is marred by a glossiness that makes Gordon seem much older than he is.

HEDGE & DONNA: Revolution. Hedge and Donna Capers (vocals); Hedge Capers (guitar); various musicians. Touch Cash on the Water; She Said She Said; Colorado Exile; Free and Easy; Aragon Ballroom; Heavy Ways of Moving; May 7th; Sail a Schooner; and four others. POLYDOR 24 603 $4.98.

Performance: Missing something Recording: Very good

The elements of this one somehow add up to less than they should. Hedge Capers is an easy, capable singer, and Donna is one of those soul queens of at least some quality. The arrangements are only slightly overblown. The songs are better than average (I'm especially fond of the lyric of lead guitarist Joe Walsh's Collage: "Winter time is a razor blade/That the Devil made/And the price we pay for the summer-time."). But some catalyst is missing. The thing just hangs there, promising but never delivering excitement. It comes close with Nickel A Night, but the arrangement goes sour near the end, ringing in a tacky ornamental woodwind. Perhaps it's significant that the title Revolution on the jacket has the "R" x-ed out—and these performances will grow on me eventually. Meanwhile, I find it too easy to be detached about this recording.

JEFFERSON AIRPLANE: Bark. Jefferson Airplane (vocals and instruments). When the Earth Moves Again; Feel so Good; Crazy; Arkansas; Pretty as You Feel; Wild Turkey; Law and Order; Houston; She Said She Said; Never Argue with a German if you're Tired or European Song; Thunk; Movin' Day; BAY BROTHERS. Hood, 1001 $6.95, © PKFT 1001 $6.95.

Performance: Losing altitude Recording: Very good

Last time, you'll remember, (or perhaps your correspondent was saying in a review of the electric Houston album) that he was the Jefferson Airplane still had singer Marty Balin and didn't have an electric violin. Well, guess what, fans? Marty Balin has left the Airplane and in his place there's an electric fiddler, the same one heard in the Hot Tuna album, that of Papa John Creach. The Airplane also has a new record label, Grunt, a subsidiary of RCA. "Bark" has some very fine moments, and the electric fiddle, restrained and well programmed into the maze of sound, actually helps, but not as much as the absence of Marty Balin hurts. Gone are those eerie vocal harmonies with Grace Slick and Balin wrestling with the top end while Paul Kantner wove in some of the best texture down below. Gone are those slow-working but great cuts like Turn My Life Down on the "Volunteers" album.

"Bark" is good because of a heroic effort by Grace Slick on the vocals, and bad because too much of it is given to Kantner's Jefferson-Starship-type preaching about revolution, which has by now started to sound dull, repetitious, and childish. When the Earth Moves Again by Kantner and Third Week in Chelsea by Jorma Kaukonen are fine songs, and so is the jazzy end. (Continued on page 126)
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little Pretty as You Feel by Kaukonen, Joey Covington, and Jack Casady. Grace’s Crazy Miranda is fine, but not as good as her Hey Frederik on “Volunteers.” But Rock and Roll Island and War Movie have typical Kantner lyrics (paranoid) and typical Kantner melodies (nonexistent), and Law Man. Feel So Good, Wild Turkey, and Thunk are nice but clearly minor works. That leaves Grace’s Never Argue with a German if You’re Tired or European Song, which has . . . ah . . . chutzpah, but what does it all mean? Grace was carrying the group when they made this record. N.C.


Performance: Good
Recording: Good

Jo Mama, whose musicians have backed James Taylor and Carole King, is better at perking along calmly than it is at jumping. The group is a little into jazz and a little into blue-eyed soul, and it’s the Motown gibberish that attends the latter that most harms the album. The band is quite facile and the production is tasteful, but the group went into the studio with several songs it should have left outside. Sweet and Slow is soft, jazzy, and sexy, simply done, a fine mood piece. Sho ‘Bout to Drive Me Wild and When the Lights Are Way Down Low, both the work of Mac Rebbenack (Dr. John the Night Tripper) with collaborators, are worth hearing several times—the band at last jumps properly on Wild—and Have You Ever Been to Pittsburgh is a fetching, funky blues take-off. Beyond that, the material runs thin, and not even Carole King’s help with the vocals gives it body. Her Smack Water Jack is typical of the fare—how Buffy Sainte-Marie managed to squeeze some life out of that song is beyond me, for nobody else has been able to. Diligence in selecting material is what the group needs most. N.C.

LABELLE. Patti Labelle (vocals); orchestra. Heart Be Still; Time; Wild Horses; You’ve Got a Friend; Shades of Difference; and six others. WARNER BROS. WS 1943 $5.98, © M 81943 $6.95, © M 51943 $6.95.

Performance: Imitative
Recording: Good

Aretha Franklin has recently succeeded Barbra Streisand as the most imitated female singer of the day. Labelle is the latest imitator, and one of the best. She has a big, immensely powerful voice that doesn’t go anywhere stylistically because it is such an accurate carbon copy of Aretha. Too bad that performers like this feel so insecure about their own talents (and in this case not inconsiderable ones) that they feel they must Xerox a proven success developed by an established star. In many cases I think it might just be misplaced idealization of their hero. (“If I could only someday sing/act/ dance like . . .”) All too often they find that they indeed can, which may give them a certain amount of pleasure and satisfaction but generally leaves audiences cold. Imitation may be the sincerest form of flattery, but it is also an almost certain way of stalling a career before it gets off the ground. P.R.
Among the “stereo set” it’s pretty much a toss-up.

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JAMES LATE: Fulton Fish Market. James Late (vocals, guitar, harmonica); various musicians. Fulton Fish Market; Very Good Man; Man on the Corner; Hard Hard Life; Baby Please Come Home; We Work Together; Lazy River; Make it on My Name; and five others. METROMEDIA MD 1043 $4.98.

Performance: Wholly mackerel
Recording: Good

You’re not going to believe this: James Late is a frail young man who by day works in the Fulton Fish Market, scooting heavy crates of fish around, and by night writes songs about working at the Fulton Fish Market and scooting heavy crates of fish around. Possibly he’s regarded as the house poet; at any rate, he has assumed the role of chronicler of the nonadventures of the big, strong men who work with him. The implication is that inside each big, inarticulate fish-handler, there’s a frail, inarticulate poet trying to get out. Well, Woody Guthrie had to start somewhere, right? Right. And if Woody had started out writing songs as terrible as these, we could be more hopeful about the future of James Late. He introduces each song with an earnest monologue, which always turns out to be more exciting and more musical—and closer to poetry—than the songs.

Late sounds like a pretty good guitar player, and the arrangements are exemplary in their cleanliness and simplicity. But the banality of the songs and the thin impotency of Late’s vocals make this just another gimmick record.

I’m having my copy analyzed to find out if it’s got mercury deposits.

N. C.

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MADRIGAL. Madrigal (vocals and instruments). I Believe in Sunshine; Picture Frame; Boog; Television Nightmare; Lady; and five others. SSS INTERNATIONAL 18 $4.98, © SST 18 $6.95, © SSC 18 $6.95.

Performance: Bright
Recording: Good

Tie-dyed music with an upbeat outlook is the stock in trade of this latest young group. They sing a lot about sunshine ("She's a sunshine girl"..."I believe in sunshine"), but every once in a while a cloud steals over the proceedings as these four twangy fellows with identical mops of varying hues take sideswipes at the Establishment in scornful references to "plastic underwear," "green stamps, and other sacred American institutions. And sometimes they just go "di, di, di, di," or "bop, bop, bop," which may or may not indicate the grinding of some axe or other between the lines. It's as up-to-date as the latest copy of Variety, and possibly just as ephemeral. I cry for madder music and for wilder hair!

P.K.

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NEW RIDERS OF THE PURPLE SAGE. New Riders of the Purple Sage (vocals and instruments). Henry; Glendale Train; All I Ever Wanted; Dirty Business; Portland Woman; and five others. COLUMBIA C 30888 $5.98, © CA 30888 $6.98.

Performance: Side-saddle
Recording: Good

My enthusiasm for things Western waned shortly after I learned that Roy Rogers, upon Trigger's demise, had him stuffed and set up as a permanent exhibit. I do hope that it didn't give Dale Evans any ideas for the future. But it might not be a bad idea for the perpetrators of this album. NROPS are someone's brain storm that rock and the sort of "Western" music that Atruy and Rogers used to "sing" in their hey-
days be combined. The results would be enough to make Trigger turn over in his grave—if he had one.

P.R.

THE PARTRIDGE FAMILY: The Partridge Family Sound Magazine. The Partridge Family (vocals); various musicians. One Night Stand; Brown Eyes; Echo Valley 2-6809; You Don't Have to Tell Me; Rainmaker: Summer Days; and four others. BELL 6064 $4.98, © M 8 6064 $6.95, ® M 5 6064 $6.95.

Performance: For zombies
Recording: Very good

This is what you call marketing, baby, so pay attention. The Partridge Family isn't quite as synthetic as the Archies, but like the Archies and the Monkees, the family was fabricated for television because a "rock-music family" was needed for another dumb, happy-go-lucky series. There is, of course, a rock-music family in real life, the Cowsills. You didn't think television producers thought up ideas for shows all by themselves, did you? I like to think the Cowsills turn down such parts, but it's more likely the producers never considered them—more marketing possibilities in creating a star (David Cassidy) from the ground up, for the kids, and bringing in Shirley Jones to hook the parents who remember her as the sweet simpleton in the film version of Oklahoma!

David is a mediocre singer, but hell, they sold Fabian, didn't they? Shirley no doubt does sing with the group, although I defy anyone to pick her voice out of the others on this record. Most of the singing is done by "background voices," and most of the instruments are played by sidemen who aren't privileged (or condemned) to be nominal members of the Partridge Family. The group now and then records a catchy tune—indeed, so did Fabian—and maybe one of these appears on each album. Here it's I Woke Up in Love This Morning, which wasn't catchy enough to deserve all the AM radio play it got a few weeks back, but that's marketing too, baby.

RASMUSSEN. Flemming Rasmussen (vocals, guitar); various musicians. Thousand Miles; Love Song; Sunday She's Leaving; A Song to the Children; Johnny Got His Gun; Sometimes; and four others. REPRISE RS 6449 $4.98, ® M 8 6449 $6.95, © M 5 6449 $6.95.

Performance: Mild-mannered
Recording: Good

Flemming Rasmussen, born in Copenhagen, has put together a listenable but not quite satisfying album. His songs are well-constructed and pleasant, with mild rock instrumentation, but not very distinguished. Rasmussen's voice, on the other hand, is closer to being distinguished than well-constructed. It sounds weak, as if he is not using his real voice, or as if he is too carefully shaping each sound.

His style both as singer and as songwriter seems to show Paul McCartney's influence. He seldom makes a clearly unpleasant sound, in either role. He's a good record producer—he's done an excellent job here with the arrangements. Lady Sunshine, with woodwinds, is a good example of what I mean. If the melodies were a little more original and if there were a jolt in the lyrics now and then, I could put his vocal limitations in perspective. Even so, I think he should definitely stay in the business.

Helen Reddy: I Don't Know How to Love Him. Helen Reddy (vocals); orchestra, DECEMBER 1971

WE NEVER HAVE TO GO TOO FAR to get our Christmas tree. The woods around Jack Daniel's Hollow are filled with them. We hope that you won't have to go to too much trouble getting ready for the holidays either. So you can sit back and truly enjoy this happiest of all seasons.

TENNESSEE WHISKEY • 90 PROOF BY CHOICE 
DISTILLED AND BOTTLED BY JACK DANIEL DISTILLERY • LYNCHBURG (POP. 361), TENN.
Nick DeCaro, Jimmy Haskell, and Bob Thompson, arts. Crazy Love; How Can I Be Sure?; Our House; I Am Woman; L.A. Breakdown; A Song for You; Don't Make Promises; and three others. CAPITOL ST 762 $9.98.

Performance: Misguided
Recording: Good

Helen Reddy is another of those poor souls swimming upstream all the way in a musical world that does not deserve her. She's wailing Van Morrison, but smoke gets in her eyes. At times her voice is cloyingly sweet, and there are all the icy mannersisms from Tammy Wynette to Per Clark. But there's some musical know-how here, she sings in tune, and self-confidence is not a thing she lacks. There's nothing wrong with Helen Reddy some decent backing and a set of reliable tunes couldn't cure. But Nick DeCaro, who has performed admirably as an arranger for Streisand, lets her down on I Don't Know How to Love Him; Helen's own song I Am Woman, a sort of rock tribute to Women's Lib, screeches while it preaches; and the best song on the album, L.A. Breakdown, really breaks down. When I think of the sensitive treatment Jack Jones gave to this song, I wonder why anyone would want to murder it. There are tunes by Leon Russell, Tim Hardin, and Van Morrison in this batch, but all of them have been sung better by others. Nowhere is there any indication that Miss Reddy has established her own style, her own attitude toward this music, or her own distinctive way of dealing with it. She needs some talismans to live by. 'The swim is still uphill, and the strokes are getting harder. R.R.'

Spirit in Flesh. Spirit in Flesh (vocals and instruments). Fine Line; Flesh & Gun; Deny to Me; Clear the Way; Hear My Plea; and five others. METROMEDIA MD 1041 $4.98.

Performance: Cheerful
Recording: Excellent

Here is a youthful-sounding, beautifully produced, and at times almost joyous album. Spirit in Flesh has a cheerful and energetic attack, some fine drum playing by Johnny America, and a propelling rhythmic beat. As with many new groups, however, they seem so delighted with their own found sound that they repeat it on every track. Clear the Way, the last song here, is as good a song, and as well-performed, as Weight of the World, the first one. But by the time you get to it you can anticipate most of what's going to happen. Right now Spirit in Flesh should be able to make it big on the singles market, but I suggest their next album be delayed to allow time for a little more variety to develop in their work.

Mark Spoelstra: This House. Mark Spoelstra (vocals and guitar); Doug Clifford (drums); Duck Dunn (bass); Stu Cook (guitar); Steve Miller (keyboards); the Stovall Sisters (vocals). Dirty Movie Show; Better Butters; Amazon Song; Pretty Bird; Let Your Fingers Do the Talkin'; This House; and five others. FANTASY 8412 $4.98.

Performance: Enthusiastic
Recording: Fine

Spoelstra's music sounds like a remnant from the early-Sixties folk revival. All those simple, familiar chord patterns and reminiscent melodies that weren't new even when Dylan and Ochs discovered them are dragged out again. All the familiar socially-conscious topics and personal reminiscences are here. It's certainly not offensive music; it just isn't particularly interesting. Spoelstra sings pleasantly, and plays fairly well; he's backed by Creedence's Doug Clifford and Stu Cook, by Nashville's Duck Dunn, and by the fine keyboardist Steve Miller. On one track the Stovall Sisters fill in the backgrounds. To me it sounds dull, but if you insist upon recalling those dear, dim days of a decade ago, maybe Spoelstra's your man.

D.H.

Dakota Staton: I've Been There. Dakota Staton (vocals); orchestra, Melba Liston and Dave Blumberg arr. One Less Bell; I Can't Quit You Baby; Young Generation; Buy Myself a Man; Blues for Dakota; More Today than Yesterday; and four others. VERVE V6 8799 $4.98.

Performance: Wasted on trashy material
Recording: Good

It's good to have Dakota Staton, the "Late, Late Show" jazz singer from the Late, Late Fif...
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*Hirsch-Houck Laboratories, Stereo Review*

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Larry Zide, *The American Record Guide*

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Barbra Streisand: Artistic purity and funky soul

You learn new things with each new Streisand album. This time, I learned her middle name is Joan. Also, I learned a bit more about her musical agility: a professional slickness that can ease itself into any kind of musical form, embrace it, get the most out of it, leave it a bit fashionableness disguised?). Through-out, a big group is involved in the background instrumentation—drums, guitar, bass, record-er, even a cello in the moon tune—but none of these ever obtrudes, and the singing style al-ways is unforced, direct, and pure.

This puzzling album is no doubt worth pondering over and playing many times—a break-through, it may be, moving beyond the sim-plicities of the conventional folk ballad without abandoning its basic honesty.

P.K.

Barber Storch: 40 Miles Past Woodstock

Jeremy Storch, with this album, mostly tells a story, we've had artistes come away with the "Bless-my-soul-i-just-discovered-me" sort of story, we've had artistes com-
ing down the pike in mournful numbers telling us all about themselves, their identity crises, and their latest flashes of insight. Why, there are places in California where insight is all they ever talk about. Nobody knows anything about baseball strategy, or which car can outrun which, or anything real like that. But I digress.

Jeremy Storch, with this album, mostly tells you who he thinks he is. He does it in such bug-eyed, shaky-voiced wonderment that after a while you want to say something like, "Damn it, kid, let me alone so I can concent-rate on this racing form." But you'll probably listen long enough to notice that his vocal style owes much to Neil Young. He does write me-lo-dies, which is more than you can say for some more famous songwriters. Horse is a nice hunk of melody, though not a whole one, and since it is blessed with no lyrics at all, it is easily my favorite on the album. As for the rest of this record. Even though every last word Stookey sings is supplied in a run-on liner note, I was at a loss to understand certain passages, especially since one entire piece is in moon-lang- uage, or esperanto or something ("Gagar in-male xe: Ileon ovluv niketh reece, rogas candin ...or words to that effect). Other texts, to be sure, are plain enough—memories of country walks and rides on river-boats, quotations from the New Testament, complaints of road-weariness—but what are we to make of lines like "Sebastian arrived in a cardboard suitcase," or "Oh boy, another gig with the tiger?"

And what is the music? Is it folk? Is it rock? Is it folk-rock? It is all of these, with something extra—wistfulness, a hushed gentleness in an idiom that takes us a step further into some-thing rather new. At times, as in Lucy Went Riding on a River Boat, a subdued romantic softness is sustained, as though a French art song had been transmuted into a Western bal-lad by a long sojourn in Montana. At other times, as in a song about the Urban Coalition's slogan "Give a Damn," which ends with a kind of plea for involvement and even for funds, there's an evangelical cast to things. And in Wedding Song, which has already achieved some popularity, we have a kind of hymn to Hymen with a curious blend of sensual and reli-gious overtones. Occasionally there seems to be a deliberate reaching for eccentricity (or is it just fashionableness disguised?). Through-out, a big group is involved in the background instrumentation—drums, guitar, bass, record-er, even a cello in the moon tune—but none of these ever obtrudes, and the singing style always is unforced, direct, and pure.

This puzzling album is no doubt worth pondering over and playing many times—a breakthrough, it may be, moving beyond the simplicities of the conventional folk ballad without abandoning its basic honesty.

P.K.
The best of both whirls

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You’ve Got a Friend. I’ve heard it before, most recently performed by Miss King herself. But listening to a real actress interpret it, I find the song takes on new emotional shadings. I listened to Streisand sing this particular song five times in a row, and the effect is as close to a rock aria as a song is likely to get.

It’s hard to explain exactly what she does with the rock material in this album. A lot of it has to do with acting. But there’s more, too. She takes each song, divides it into movements as if it were a symphony, then smooths the wrinkles—like ironing out a piece of cloth—until the song is dry. It’s as though she knows, understands, and cares about each song, as if it were written by a Sondheim or an Arlen. I suppose that’s why she transcends fads and fashions, and why she seems equally at home in all kinds of musical forms. The girl is a true musician. She has artistic purity and funky soul at the same time. I can’t think of many rock musicians I can say that about.

Of course it is true, as some of Barbra’s detractors have unkindly pointed out, that an air of pretentiousness does surround some of the selections on this disc. A piece of trash like Space Captain is unmistakably from another bag of sore throats, so I can scarcely blame her for flailing the living daylights out of it. Sometimes she seems to try too hard to convince the kids and the freakouts on the narrow-minded rock scene that she is one of them, that she just does those jazzy items like His Is the Only Music That Makes Me Dance so she can still play Vegas. This leads to unwise material selection. Beautiful proves Carole King is capable of writing garbage, and Mother proves John Lennon has his moments of musical shipwreck. But for every flaw on this album, there are four or five wonderful surprises—good odds these days.

Some of the other things I especially liked are I Never Meant to Hurt You, a gorgeous new Laura Nyro song, Billy Preston’s positively dirty organ on Where You Lead, the sequined arrangement by Kenny Welch on Burt Bacharach’s One Less Bell, the carnal knowledge of Larry Muhoberac’s sensual piano on You’ve Got a Friend. There are enough highlights on the session to make me forgive (almost) the corny seagulls screeching away in the background on the Theme from Summer of ’42. Barbra just keeps growing as an artist. I wouldn’t care if her middle name was Adolph. Musically, she knows where it’s at.

R.R.

KEITH TEXTOR AND FRIENDS: Hold Me. Keith Textor, Lesley Miller, Juli Christian, Jerry Duane, Bill Dean, Gene Steck (vocals); Keith Textor arr. and cond. / Want to Get to Know You; He Has a Way; You’ve Got a Friend; Take Me to Tomorrow; Hold Me; and five others. A & R ARL 7100/006 $4.98.

Performance: Pleasant
Recording: Good

This group is composed of six talented vocalists who lean slightly toward gospel and blues, with material ranging from such familiar chestnuts as Carole King’s You’ve Got a Friend and the Lennon-McCartney Fool on the Hill to more adventurous outings like Gene MacLellan’s Put Your Hand in the Hand. There is nothing wrong with what they do, the trouble is, it is entirely too predictable. The voices blend, modulate, hum away like a ceiling fan, and rise occasionally to passionate crescendos, but it all has a studio sound to it—it is so slick and so relaxed and so unoriginal that it begins

(Continued on page 136)
**Cartridge Identification Chart**

*Approved for 4 channel*

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Yet I have to admit I enjoyed Keith Tex tor and his singers. They are easy on the ears, all highly trained professional musicians instead of raw rock freaks, and the back-up is full of pleasant things. Some of the highlights are the pulsating build on You've Got a Friend, with the girls throbbing in the upper register, some nice uncredited piano, a lush blending of flutes and woodwinds at just the right places, and a wistful solo by J ulie Christman on Hold Me that convinced me she deserves more sophisticated material. The second time I played this disc, I enjoyed it even more. But it is only a pleasant listening experience; it won't win any medals and it doesn't break any new ground. The record market is overcrowded already, this group needs to find something new to say. They've already got the musical know-how; now they need the repertoire that will help their talents to be noticed.

R.R.
JAZZ

HADLEY CALIMAN. Hadley Caliman (tene-
or sax and flute); Larry Vuckovich (piano); John White, Jr. (guitar); Clarence Becton (drums); Bill Douglas (bass). Cigar Eddie; Comencio; Little One; Blues for L.L.; and two others. MAINSTREAM MRL 318 $4.98.

Performance: Coltrane revisited
Recording: Very good
Caliman has respectable credentials as a mid-
period Coltrane-style tenor player and flut-
ist. He's been around for a while, mostly on
the West Coast big-band scene, has spent some
time at Synanon, and seems to have gotten his
music together. Yet what he plays suggests
so strongly another man's style that I find diffi-
cult to hear Caliman underneath all the Col-
trane-isms. I suppose that's an inevitable conse-
quence of the strength and influence of a fig-
ure as important as John Coltrane, but it's a
shame that players like Caliman can't find a
way to function creatively within the bounds
of what is, after all, a kind of classical jazz style.
In any case, my reaction is to want to pull out
my Coltrane originals and listen to them. Too
bad, because Caliman seems to have something
to say, if only he could work out his own
language. D.H.

BOBBY HUTCHERSON: San Francisco/
Featuring Harold Land. Bobby Hutcherson
(vibes, marimba, percussion); Harold Land
(tenor sax, flute, oboe); Joe Sample (piano,
electric piano); John Williams (bass); Mickey
Roker (drums). A Night in Barcelona; Goin
Down South; Procession; Ummh; Jazz; Prints
Tie. BLUE NOTE BST 84362 $5.98.

Performance: Jazz looking for rock
Recording: Very good
In its still-tentative efforts at revival, jazz is go-
ing to have to avoid the temptation of follow-

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DECEMBER 1971
It's Make-Believe Ballroom Time again!

RCA's "The Big-Band Era"

BY PAUL KRESH

NOSTALGIA seems to have us by the lump in the throat, for the past is pulling at our sleeve these days on every street corner. Now it's the Big Bands. Whoever thought those tuxedoed and dinner-jacketed sticklers would come back into fashion? Having long let the dust gather on ancient Victor "black-label" discs of Bunny Berigan, Benny Goodman, Glenn Miller, and Duke Ellington—and the dubious memories that went with them—I, for one, could no more bring myself to play them again than to drag out all my old Koolschniders of ancient trips to Chicago. Oh, there was going to come that rainy Saturday when I would tape all those breakable 78's to preserve them for my old age, but how many of us ever get around to such things? In countless collections, as in mine, those musical mammoths of yesteryear lie silent in the graves of their envelopes. But RCA has now done our archeology for us, and it's Make-Believe Ballroom Time again. So roll back the rug! The saxes are crooning, the drums are thumping, and the beat that all America once box-stepped and hopped to is swinging out again.

The first thing that catches the ear of the tourist on this expedition into the day before yesterday is the caliber of the men who played in that big-band era, which solemn jazz historians say started in the 1920's and faded out sometime in the mid-Fifties: Harry James and Ziggy Elman on trumpet and Gene Krupa on drums with Benny Goodman, Bunny Berigan playing the trumpet for Tommy Dorsey, then for Goodman, then founding his own suave group; Sonny Greer the drummer for Lionel Hampton, then going to work for Duke Ellington; Johnny Hodges on sax for Ellington; Al Caiola strumming guitar for Larry Clinton...headliners all. And the songs! (or rather the arrangements, for there is very little singing here): Benny Goodman's tour de force with Sing, Sing, Sing; Lionel Hampton and the Twelfth Street Rag; Earl "Fatha" Hines in his famous Boogie Woogie on the St. Louis Blues; Artie Shaw's Frankie and Johnny, which of some of us would have driven us crazy if the neighbors didn't stop playing it on their booming Carharts; Duke Ellington running his "A" train up to Harlem from every juke-box in the land; the smooth-prom music of Glenn Miller's blue, blue In the Mood and that opalescent String of Pearls; Bunny Berigan turning adolescents into world-weary sophisticates every time the phonograph played I Can't Get Started, with that extraordinary trumpet solo. And Count Basie—oh man! And Charlie Barnet—wow! Did you know that the once-adored swing hit And the Angels Sing started out in life as Fraulein in Swing—inspired by a Yiddish wedding dance? I thought not!

Recently it's become the vogue for today's dinosaur-sized groups such as Enoch Light's Light Brigade to cut new discs imitating the big-band sounds, but the real thing reveals itself in this set as utterly inimitable. Commercial it all was, to thehit—big-box-office, big business—but also genuine in its ways. To be sure, another jazz—a tougher, earthier, freer, more muscular music—existed underground beneath the glitter and the glamour, but never mind. The big bands offered a pulse and a verve, even a spaciousness and splendor, evident from the very first notes of South recorded by Benny Moten's Kansas City Orchestra in 1928 and continuing, without a lemon in the lot, until Larry Clinton and His Orchestra sign off here with Study in Brown, taped June 1, 1976.

In his remastering, producer Don Miller has preserved the period sound, eliminating only the surface noise that once seemed part of the music on all records. So why fight it? Bring Gene Krupa and Harry James, Jess Stacy and Tony Pastor, Johnny Hodges and Buddy Rich out of their silent shellac coffins and back to the stage of your own private Paramount. Revel in your reveries. And if you've never heard these big moments from the past before, well then, it's history, right?

THIS IS THE BIG-BAND ERA. Original big-band recordings: South (Benny Moten's Kansas City Orchestra); Song of India (Tommy Dorsey and his Orchestra); Sing, Sing, Sing (Benny Goodman and his Orchestra); I Can't Get Started (Bunny Berigan and his Orchestra); Don't Be That Way (Benny Goodman and his Orchestra); Begin the Beguine (Artie Shaw and his Orchestra); And the Angels Sing (Ziggy Elman and his Orchestra); Twelfth Street Rag (Lionel Hampton and his Orchestra); Cher- okee (Charlie Barnet and his Orchestra); In the Mood (Glenn Miller and his Orchestra); Boogie Woogie on St. Louis Blues (Earl "Fatha" Hines and his Orchestra); After Hours (Erskine Hawkins and his Orchestra); Take the "A" Train (Duke Ellington and his Orchestra); A String of Pearls (Glenn Miller and his Orchestra); Opus One (Tommy Dorsey and his Orchestra); Tippin' In (Erskine Hawkins and his Orchestra); Mister Roberts' Roof (Count Basie and his Orchestra); Study in Brown (Larry Clinton and his Orchestra). RCA VPM 6043 two discs $11.96.
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Either the Wollensak 4760 or the 4755 can complement your present component system with cassette advantages. Hear them both at your nearby dealer. Then answer the question: Dolby or not Dolby?
BACH: Passacaglia and Fugue in C Minor (BWV 582); Preludes and Fugues in C Major (BWV 547) and G Major ("The Great," BWV 544); Toccata and Fugue in D Minor (BWV 565). Organ of the Thomaskirche, Leipzig. E. Power Biggs (organist). COLUMBIA 6 T 30648 $6.98.

Performance: Biggs' best
Recording: Flutter and constriction
Playing Time: 40' 41".

This is an especially interesting program, not so much for the music, which has been recorded so often (and by Biggs himself a number of times), but because of the place of recording, which is Bach's own church in Leipzig. Columbia claims that this is the first recording made there by an American; I don't remember having run into any recorded solo performances from the Thomaskirche before, although they may exist. The interesting point is that the acoustics, with a fairly extensive reverberation time, are excellent. It must be pointed out, however, that Bach's original organ, which had been rebuilt a number of times since Bach's death, was razed in 1889. Whether the one supposed to have been Dolbyized. No such information is contained on the cassette itself, and, in fact, it merely sounds dull in my player's Dolby position.

RECORDING OF SPECIAL MERIT

BEETHOVEN: Egmont—Complete Incidental Music, Op. 84: Overture; Die Trommel geruht; Entr'acte I; Entr'acte II; Freudvoll and Leidvoll; Entr'acte III; En-
tr'acte IV; Death of Klarchen; Melodrama; Victory Symphony. Pilar Lorengar (soprano); Klausjuergen Wussow (narrator); Vienna Philharmonic Orchestra, George Szell cond. LON-
DON 5 SCS 6775 $6.95.

Performance: The best
Recording: Likewise
Playing Time: 57' 40'.

In my Best-of-the-Month review of this recording in the March issue, I observed that the late George Szell could not have reared a more perfect monument to his musical and personal ideals than this complete performance of Beethoven's incidental score for Goethe's Egmont. Upon hearing the performance again on London's Dolbyized cassette, I would now go so far as to say that this is the finest recorded performance George Szell ever gave us during his long and distinguished career. I don't know what magic London has worked in its Dolbyized cassettes, but even heard on non-Dolby equipment, the sound simply leaps out of the speakers—and by the time I had heard Egmont's final score over the menacing roll of the snaredrums at the place of execution, the hairs on my forearms were standing straight up. Most striking on the London Dolby tapes is the increased volume level—considerably more than on DG's product, up to now the most consistently high-quality prerecorded cassettes I have heard. Yet the London Egmont shows no signs of overload, even at the most strident climaxes at the end of the Overture and in the final pages.

Klausjuergen Wussow does a superb job with both the connecting narration devised by Franz Grillparzer and with Goethe's own lines for Egmont, and Pilar Lorengar brings both youthfulness and passion to her delivery of the two songs of Klarchen, whose love for the hero forms a sub-plot. London's cassette package includes the program notes that came with the original disc release but, regrettably, none of the text or translation for the German narration and songs.

D.H.


Performance: Technicolored
Recording: Bright and detailed
Playing Time: 48' 21".

Debussy's La Mer can be interpreted from either of two opposite points of view: symphonically (Toscanini and Boulez) or coloristically, of which the present Stokowski reading is the most vivid example I've heard yet. Stokowski's reading is highly effective and further enhanced (for those who like such touches) by London's detailed microphoning of solo and small-ensemble episodes. More to my personal taste is Stokowski's rhythmically straightforward and gorgeously colorful reading of the Second Daphnis et Chloé Suite, complete with the original wordless choral scoring—but why, oh, why did he take it upon himself to extend the final measure of the music with an additional swelling chord for chorus alone not written by Ravel? It is a glaring blemish on an otherwise fine rendition. Stokowski's rather slow and heavy-handed treatment of Berlioz's Dance of the Sylphs from The Damnation of Faust is a curious choice for a filler.

One noteworthy aspect of this particular recording is the expert balancing of chorus with orchestra in the Ravel, where both the impact

Explanation of symbols:

® = reel-to-reel tape
® = four-track cartridge
® = eight-track cartridge
= cassette

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

Mono phonics recordings are indicated by the symbol ©; all others are stereo.
and the “offstage” quality (as called for by Ravel) are admirably achieved. However, the climaxes, especially where rolled cymbals are involved, are not as clearly reproduced on this Ampex-processed cassette as similar material is on London’s own Dolbyized product, which seems to have a more solid bass foundation as well. Ampex, by the way, includes no program notes in its package.

D.H.

RECORDING OF SPECIAL MERIT


Performance: Dynamic
Recording: Good
Playing Time: 62’20’’

In reviewing the London set of Schumann symphonies on discs some months ago, I complained about the discrepancy in sound quality between the 1968 recordings—the “Rhenish” and D Minor symphonies—and the later recordings in the album. Low volume level and muddiness at the ends of the two very long record sides seemed to afflict both earlier recordings. In this Dolbyized cassette, London has made handsome amends for the shortcomings of the disc issue: the sound is solid, bright, and clean, and with no inner-diameter deterioration factor to worry about in the tape format the ends of the two symphonies sound beautifully full and clear. The Solti readings are satisfyingly urgent in their dynamics, phrasing, and rhythmic momentum.

There is no tape competition for this particular coupling, and this is one instance in which I would recommend emphatically the purchase of cassette rather than disc if you want to hear the Solti performances to best advantage. D.H.

RECORDING OF SPECIAL MERIT


Performance: Incisive and insightful
Recording: Superb
Playing Time: 65’20’’

Two of the richest Romantic works in the repertoire are given searching and sensitive performances in this generous package. Sibelius wrote his violin concerto in 1903 and rewrote it in 1905; the applause of audiences through­out the world must have rung in his ears steadily from that time forward. Tchaikovsky had the usual trouble with his. After alerting Madame von Meck to his new project in 1878, he dashed off his Concerto in D in a month, only to hear from Leopold Auer, the teacher and violinist whom he had dedicated it, that the work was “unplayable.” Three years later it was played in Vienna and, like so many of the gloomy Russian’s great works, got the cold shoulder. Eventually, however, the concerto became a hit, and, as in a Hollywood movie, Auer apologized and began teaching the piece to his students. (What an ending!) The name of Jascha Heifetz is linked, through countless performances and a number of fine recordings, with both these concertos, and I have no wish to put down his virtuoso treatments. It must be said, however, that Kyung-Wha Chung’s performances are in a class by themselves. Her approach to the Sibelius Concerto is a breathtaking blend of fleet­ness and profundity as she probes, with mar­velous collaboration by Mr. Previn and his forces, for fresh meanings beneath this work’s smooth melodic surfaces. During the second movement, in particular, she achieves a kind of serenity that mere skill could never evoke. In the Tchaikovsky concerto Miss Chung never forces her tone nor overstates a passage, but never skims on drama either. In the closing pages, with the orchestra reveling in those al­tering Italianate orchestral rhythms, she is sin­gularly glorious, the sound of her violin emerging from the ensemble like the full­throated song of a bird. The Dolbyized sound does excellent justice to these performances, and there are unusually complete musical analyses of both works in the liner notes by Neville Marriner.

P.K.


KYUNG WHA CHUNG

Breathtaking fleetness and profundity

cond. DEUTSCHE GRAMMOPHON © 3300 107 $6.98.
Performance: Mostly very good
Recording: Gorgeous
Playing Time: 44’

I have little to add to my earlier review of the disc issue of this Tchaikovsky recording by Michael Tilson Thomas. I regard the First Symphony as a charmer of a piece by the way the fox trots. The Dolbyized sound is simply gorgeous. There is a vast range in both volume and clarity. Sometimes the orchestra is remarkably well balanced; sometimes it is strangely lopsided. Save for a heavy-handed touch in the second fugato episode of the finale, Thomas treats the music lightly and affectionately. The recorded sound is simply gorgeous. There is some over­balancing of horns when they take stage center, with the big tune of the slow movement, but except for this and for lowish volume level the cassette matches the quality of the disc remark­ably well.

D.H.

ENTERTAINMENT

BARRY ALLEN. Barry Allen (vocals), unidentified accompaniment. See the World; A Wednesday in Your Garden; I Need Someone

(The Painter); Darlin’ Be Home Soon; Never Comin’ Home, Lifetime, Prophecy; and four others. UNI © 3104 $6.98, ® 73104 $6.98.
Performance: Anonymous
Recording: Fair
Playing Time: 42’35’’

Duane Allman has said that any group that can strike three chords together can get recorded these days. I bring that up not because I regard Barry Allen and his backers as incapable of striking four and more chords together, but be­cause there are a lot of albums that sound like a lot of other albums, and this is one of them. Apparently, the record companies, not having the vaguest idea what might sell, assume the thing to do is to keep hammering away at the same tired and true formula. Allen’s voice has possibilities, but these songs just don’t allow those possibilities to come to much. On a better than average song, John Sebastian’s Darlin’ Be Home Soon, Allen takes a wakush approach. The arrangements are anonymous rock of the sort you’ve heard often. Comin’ Home is by far the most successful cut, involving a song of some promise, but even it fails to set Allen apart from countless others.

N. C.

THE FRIENDS OF DISTINCTION: Friends & People. The Friends of Distinction (vocals); unidentified accompaniment; People; Faces on the Bus, I Can’t Get You Out of My Mind; Down I Go; Dying to Live; Let Me Be; and four others. RCA ® PK 1698 $6.95, ® PFS 1698 $6.95.
Performance: Fluffy
Recording: Excellent
Playing Time: 48’40’’

The Friends of Distinction continue to sound as though some television variety show pro­ducer and a computer created their sound which is approximately the same as that of every other act on a typical TV variety show. No matter the impact of a song, they undercut it with their bitty-boppity style—Faces on the Bus for example. Save for the last tune, the sound of the Dolbyized recording in this set is perfect. The Grease Band seems to slip every which way, never the impact of a song, they undercut it with their bitty-boppity style. The Grease Band is a by far the most successful cut, involving a song of some promise, but (as Dick Martin might say) that’s the way the fox trots.

N. C.

THE GREASE BAND. The Grease Band (vocals and instrumental); My Baby Left Me, Mistake No Doubt; Let It Be Gone; Willie and the Pig, Laugh at the Judge; All I Wanna Do; and four others. SHELTER © 4XW 8904 $6.98.
Performance: Very good
Recording: Good
Playing Time: 44’53’’

This recording captures the essence of an underplayed, gloves-on kind of rock that should have broad appeal these days because it empha­sizes the song instead of the group’s personality. The Grease Band seems to slip every which way to serve the song, yet the group is able to find their own trademark on each piece of work. The old rocker My Baby Left Me and the bal­lad Mistake No Doubt are as different as night and day or Laurel and Hardy, and the band gives each a good treatment. Generally the band’s identity is established with acoustic gui­tars, some noir-so-fancy slide work, a tight rhythm section, and some of the most tasteful possible arrangements. This recording is among the finest of their kind.

D.H.
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DECEMBER 1971
**TAPE HORIZONS**

By CRAIG STARK

**TAPE VS. DISC**

This is the season when many families will be deciding that the time has come for them to get their first good stereo system. Having selected a pair of speakers, most will probably buy a receiver as well, partly because of its built-in FM facility. However, since the music you want to hear isn't always on the air when you want to hear it, even the newcomer to audio will usually want a second program source. Budgets being what they are, this usually means at least an initial choice between discs and tape.

If tape weren't my favorite medium I wouldn't be writing this column to help audiophiles get more out of their recorders. On the other hand, the beginner in high fidelity is likely to view a tape deck less favorably than you who has a good deal of experience with both. The reason that though catalog selection is less extensive than for discs, tapes preserve their high frequencies over a greater number of playings, have a greater dynamic range, and don't develop the pops and ticks which often mar enjoyment when listening to music on discs. And this may be worth the extra dollar or so which the commercially taped version usually costs.

On the other hand, while the best open-reel pre-recorded tapes do rival, but seldom exceed, the quality of good discs, on many tapes the hiss level is annoyingly audible, as if an abnormally low recording level had been used in making the copies. Moreover, the treble response on some tapes tends to be shrill, and on others somewhat muted, so that a number of readers have reported that by dubbing their own mint-fresh discs onto tape they often achieve a better result than with the commercially duplicated product!

Undoubtedly, the greatest interest today centers on the cassette. Competitively priced and almost as easy to use as a record, the cassette presents monumental problems in retaining the very high frequencies and in keeping hiss at an inaudible level because of its very slow speed (1 7/8 ips) and extremely narrow track width (0.026 inch). Yet the development of new tape oxides, when combined with Dolby noise-reduction processing, has made for some very impressive demonstrations. On the other hand, available selections in this format are still limited compared to disc. And we must wait to hear whether the newer cassette transports can overcome the wow and flutter problem that frequently imparts a slight but annoying vibrato to music.

In sum, don't intend to sell you on records instead of tape, for the latter's advantages in recording are unquestionable. But if your interest is in playback only, don't sell the disc short, either!
Sure, you can do without Edi-Q and BiaTron.
But think what you can do with them.

In talking about the fine TEAC semi-pro 1230 four-track, two-channel reel-to-reel deck, we may have given you the idea that its Edi-Q and BiaTron features are just the frosting on the cake. That's what happens when you take a classic deck in the consumer best-buy class, and then decide to outdo yourself.

If your name isn't TEAC, you add on the latest kluge and veeblefetzer, and call yourself a pro.

But when you're TEAC, it's noblesse oblige all the way. You have to integrate into the design a sophisticated edit/cueing/pause system that would do credit to a recording studio. The kind that lets you edit out unwanted material while you're recording. Smoothly. Instantaneously. With two flicks of a toggle. This is all incorporated in an inconspicuous control lever on the panel, so to call your attention to it, we've named it Edi-Q.

Then to versatilize the 1230 for both standard and low-noise, high-output tapes, we've enhanced it with a bias-current switching capability that lets you choose the correct bias for the tape you're using. But a panel switch is pretty unassuming, so we've given this one the catch-name BiaTron.


If you're an audiophile with a case of noblesse oblige like ours, we have a sneaking suspicion there'll be Edi-Q and BiaTron on your next deck.

Frequency response—30 to 20,000 Hz (40 to 18,000 ± 3 dB) at 7½ ips
Signal-to-noise ratio—Better than 55 dB at 7½ ips
Wow and flutter—0.08% at 7½ ips
Rewind time—1200 ft in 90 seconds
Microphone input—600 ohms
A superb condenser microphone for just $39.75. What's the trick? Brilliant engineering.

Condenser microphones have long been known for their sound...and their cost, and their complexity. Now Electro-Voice introduces a series of genuine condenser microphones that provide sound embarrassedly close to the most expensive studio models, without the high cost and complexity.

A big problem with conventional condenser microphones has been the need for a high voltage power supply to polarize the diaphragm. E-V has eliminated it completely with its new electret condensers. We've found a way to permanently trap this voltage right on the surface of the diaphragm, thus doing away with the need for bulky, expensive power supplies.

How do the new Electro-Voice electrets sound? Response is clean, flat, and transparent, with very high output for full recording volume. It's just what you would expect from condenser microphones costing much more, and by far the best sound-per-dollar you've ever heard.

A simple FET circuit inside each E-V electret microphone matches both professional and home tape recorder inputs with equal quality. This low-noise, high-output circuit operates from a single "AA" penlite battery for as long as 1200 hours of use.

Choose either omnidirectional or Single-D cardioid types. The chart shows the prices, and some of the reasons for the difference in cost. Whichever model you choose will give you excellent transient response, high sensitivity, and uniform polar response. Our "second-generation" electret design offers vastly improved protection against extremes of humidity and temperature. And the ruggedness of E-V electret condensers is rivaled only by E-V dynamic models. All-in-all, new E-V condensers are a significant improvement over less sophisticated condenser microphones (electret or otherwise).

If your goal is to record natural sound, or natural music—try an E-V electret. Or in the PA field where condensers have never been sufficiently reliable—try an E-V electret. But don't tell your listeners how much you paid for your new microphones. They'll never believe you!

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Single-D Cardioid
80-13,000 Hz response
Unbalanced 150 ohm output
-53 dB output level
45.00

MODEL 1751
Single-D Cardioid
60-15,000 Hz response
Balanced 150 ohm output
-50 dB output level
59.70

Output level ref. to 1 mw/10 dynes/cm². The smaller the number, the better. Prices shown are suggested retail.

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