LAB TEST REPORTS
Teac A-24 cassette deck
Bose 501 speaker system
Fisher 4-channel receiver
E-V 4-channel decoder
Garrard Zero 100 changer

What You Should Know About Amplifiers

The Coming Season's Recordings

The New JFK Center
A Federal Commitment to the Arts at Last?
a button and move across the FM dial, electronically, silently. Lift up your finger and stop in the exact center of a channel. What could be easier than that?

Remote control is easier.
Remote control isn't new, either. It's available with either the Fisher 500-TX or the Fisher 450-T stereo receivers. But the remote control on those receivers isn't wireless. There's a wire that leads from the receiver to the control unit you hold in your hand.

Tuning a stereo receiver by wireless remote control is new.
Now Fisher is introducing the 401, which ultrasonically extends the push buttons that operate the AutoScan, doing away with the need for wires. We feel that with this innovation we have given the audiophile the best of all possible tuning methods. But of course there's more to a receiver than its tuning conveniences.

The rest of the tuner section.
The tuner section of the 401 is extremely sensitive, thanks to some sophisticated circuitry that uses IC's and FET's to good advantage. And we didn't neglect the AM section. It's capable of making AM sound so close to FM mono that there'll be times when your ears won't be able to tell which band you're listening to.

4-channel compatibility.
The Fisher 401 was designed with the idea that 4-channel stereo is rapidly coming into its own. So we made it easy to adapt to the 4-channel stereo broadcasts we expect will become more and more common in the next year or so. The entire FM multiplex section is complete on a plug-in circuit board, which will be easy to replace with an FM 4-channel adapter, when one of the systems for 4-channel FM transmission now being considered is adopted as an industry standard.

Power.
Fisher receivers have always been known to deliver a lot of power for their price class, and the 401 is no exception. It has 150 watts of clean, undistorted power, which will drive both a main and a remote pair of speakers (four speakers in all) at concert volume without distorting the music.

Controls.
As you would expect of the world's first receiver with wireless remote-control tuning, the other controls are also quite sophisticated. Bass and treble controls are of the Baxandall type, allowing you to boost or cut back the extremes of the frequency spectrum without affecting the midrange.

Even the volume control is special. Instead of turning, it slides, like the kind you'd expect to find in a broadcast or recording studio. There's also a loudness contour switch, an FM muting switch, a high filter, a balance control and a speaker selector switch.

One convenience feature that you don't often find in a stereo receiver is a front-panel tape-recorder output jack, which lets you hook up a recorder without having to turn the receiver around to get at the back.

The cabinet.
Since the 401 is probably the most luxurious receiver Fisher makes, it stands to reason it would have a beautiful cabinet. It does. The cabinet, which is included in the $449.95 price, has an attractive wood-grain finish.

We feel that you should be able to have as attractive a cabinet when you listen to stereo as when you watch TV.

Other receivers with remote control.
The Fisher 401 costs $449.95. But you can buy a Fisher receiver with remote control for even less money than that, if you don't insist on its being wireless. We're talking about the 180-watt Fisher 450-T, at $399.95. (We're not the only ones who are talking about it. It has received the kind of reviews from High Fidelity, Stereo Review and Audio magazine that we like to quote in an ad.)

If you want a little more power than the 401 can give you, you want the Fisher 500-TX. It has 200 watts of power, provides four methods of tuning: manual, AutoScan, remote control (not the wireless kind), and Tune-O-Matic® push-button electronic tuning that remembers your four favorite stations so you can tune them by pressing a button. The price, $499.95.

The new Fisher 401. $449.95.
Introducing the world's first stereo receiver with electronic tuning by wireless remote control.

In the past, it has been the makers of television sets who have placed the greatest emphasis on convenience features like wireless remote control. The hi-fi manufacturers have concentrated their efforts, by and large, on reproducing sound with top fidelity. But at Fisher we feel that making a product a pleasure to use is almost as important as making it a pleasure to hear. Which is why we created the 401.

A word about automatic push-button electronic tuning.
Electronic tuning is not new. Fisher has been using it for some time now on several Fisher receivers. But though AutoScan (our name for automatic push-button electronic tuning with no moving parts) is convenient, convenience was not the reason for including it in a receiver.

The real reason for Autoscan was (and is) that you can tune more accurately with it than you could tune manually, even if you used a meter or a scope. We quote Audio magazine: "AutoScan is probably more accurate in tuning to center of desired channel than can be accomplished manually... Station lock-in is flawless. That is, when the AutoScan stops on a station, it stops on the exact 'center' of that channel."

But the AutoScan, besides being more precise than any other tuning method, is also more convenient. Press


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Long Island City, N.Y. 11101

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Address
City State Zip

* Please glue or tape coin on picture of handbook above.
Fisher believes you should be just as comfortable when you listen to FM as when you watch TV.
Playing records with some cartridges is like listening to Isaac Stern play half a violin.

The trouble with some stereo cartridges is that they don’t offer even reproduction across the entire musical spectrum. In the important upper audio frequencies, some cartridges suffer as much as a 50% loss in music power.

So, there’s a lack of definition in the reproduction of violins, as well as clarinets, oboes, pianos, the organ and other instruments which depend on the overtones and harmonics in the upper frequency range for a complete tonal picture.

The Pickering XV-I5 cartridge delivers 100% music power 100% of the time. Which is why we call it “The 100% Music Power Cartridge.” At 100% music power, all the instruments are distinct and clear, because the XV-15’s have no music-robbing output drop anywhere in the entire audio spectrum.

Pickering XV-15 stereo cartridges are priced from $29.95 to $65.00, and there’s one to fit anything you play records with. For more information write: Pickering & Co., Inc., 101 Sunny-side Boulevard, Plainview, N.Y. 11803.

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An International Calamity

DEAR READER:

As of this coming January 1, according to a New York Public Library announcement, scholars, teachers, students, writers, and researchers from all over the world (and just simply the curious) will find the NYPL's research doors closed. From that date, and barring a miracle, there will be no public access to the music library, the Rodgers and Hammerstein Archives of Recorded Sound, the theater library, or the dance library—all now housed in Lincoln Center—or the science and technology libraries in the main building at Forty-second Street and Fifth Avenue. (The main circulating and branch libraries will remain open.)

This would be a calamity of international proportions, comparable to the destruction of the Alexandria libraries a millennium and a half ago. The New York tragedy may hopefully be less permanent than the Alexandrian, but the NYPL's use, and usefulness, is infinitely greater than the ancient institution's.

The root of this looming evil is, of course, money—not the love of it but the lack of it. Frank Campbell, chief of the Music Division, wrote to us that "the Research Libraries draw their support from three major endowments, i.e., the Astor, Lenox, and Tilden Foundations. (It is a popular misconception that the Library is supported entirely by the City of New York.) Although the Library has annually raised large sums to meet its deficit, it was never enough to avoid dipping into the principal of the endowments." As a result, "each year the rate of income has been reduced." The endowments' income is now down to little more than $3 million annually. New York City provides some $600,000 a year for maintenance of the central building, New York State has been appropriating $2.8 million, and fund-raising generally brings in another $800,000. This still leaves the NYPL some $2 million short each year. Thus the dip into principal. Last year the City University of New York provided another million dollars, but as of this writing there is doubt that it will continue to do so. Unless CUNY, or someone, can scrape up the million for operating expenses, foundations are loath to give anything to modernize the facilities or conserve the treasures. (Operating expenses themselves are apparently not glamorous enough to entice foundations.)

Although the NYPL is not encouraging donations earmarked for any particular research library, it can hardly refuse them—although there is little likelihood that any of the Lincoln Center arts libraries will open unless the music library, its major component, also operates. This would take $250,000 annually. The R&H Archives of Recorded Sound would need another $100,000 and the theater and dance libraries $200,000 and $100,000 respectively. Certainly the billion-dollar record business, through its spokesman, the Recording Industry Association of America (RIAA), should be able to come up with $100,000 to keep the R&H Archives alive. It is the permanent documentation of their best efforts, their jewel, their immortality. (And just think of the promotional benefits that would accrue to such an action.)

Of course if the Federal Government would contribute the equivalent of, say, two tanks, the entire international calamity of the NYPL's research bibliocide could be averted.

Next month is our annual NEW PRODUCTS ISSUE. And if you are willing to go in for some older equipment for yourself or your children, you can learn how to AMASS A STATE-OF-THE-ART COMPONENT SYSTEM FOR $10. The October issue will also contain a publishing coup: THE UNPUBLISHED MEMOS OF CHARLES IVE'S. And if you've never read any of the old Yankee iconoclast's Menckenenesque diatribes—you ain't read nuthin'.

Leonard Marcus
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 and has an acoustic suspension woofer and tweeter with a fantastic off-axis response and a 3-position high frequency control and costs just $89 and gives you true stereo separation anywhere in the room and is, for the money, truly the very A-1 HOT SHOT MOSTEST BEST. But on paper so is theirs. However keep this in mind. Marantz speaker systems are built by the makers of the most expensive stereo equipment in the world. And exactly the same quality that goes into Marantz receivers and Marantz amplifiers goes into the Marantz Imperial 5 speaker system.

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

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September 1971
An infinite choice of speeds.

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

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

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

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

Lenco turntables from Benjamin

Dynamic Dynaquad

I am writing in reference to the fine article by Morley Kahn, “Uncover Extra Stereo Channels” [June 1971]. I have been following the progress of quadisonic stereo for some time, and I must admit the so-called Dynaquad method appeared to be the least promising. Your January 1971 issue described Dynaquad, along with its counterparts, and encouraged experimentation. I had been meaning to try just that, but was finally prodded into experimenting with the method after reading Mr. Kahn’s article.

To my surprise the results were fascinating. I had never realized how much I had been missing by playing my records through a conventional (two-speaker) system. Mr. Kahn mentioned the Blood, Sweat and Tears Spinning Wheel as being a particularly effective cut. I was not especially impressed with this selection, but the entire first album by the group, “Child is Father to the Man,” exhibited what I believe to be effective were “On the Threshold of a Dream” by the Moody Blues, particularly Are You Sitting Comfortably?, the Crosby/Stills/Nash Wooden Ships, and 49 Bye-Byes, Tommy. By the Who. And, finally, the cut that I found to be the most enhanced, George Harrison’s What Is Life? from his “All Things Must Pass.”

I noticed, however, that there are a few drawbacks. First, on certain records the amplitude of the vocal track was cut considerably (usually when it was recorded monophonically and not being reproduced in the rear speaker). When I disconnected the differential speaker, the volume returned to normal. I would appreciate your thoughts on this.

Second, the differential effect of reproducing the left-minus-right signal has a nullifying effect with records that make use of a dynamic, or moving stereo effect (shooshing the signal or portions of the recording from the left channel to the right, and vice versa). The Dynaquad method reproduces the “movement” as if it is coming from one source only, the rear speaker. The effect is distracting—as in Whole Lotta Love on “Led Zeppelin II” for example. These flaws notwithstanding, the Dynaquad method is a fascinating concept. If nothing else, it opens a previously unknown dimension to those of us who will not be able to convert our present systems to four-channel stereo.

Lewis T. Rogers
Albany, N. Y.

Dynamic Dynaquad

Without knowing more specifically what program material Mr. Rogers used, it is hard to determine just why he hears the effects he reports. Our experience with Dynaquad hookups does not tend to confirm those impressions, indeed the “humming bee” that flies through the room in one cut of the Pink Floyd album cited in Mr. Kahn’s article really does move with startling realism in a good room with good speaker placement and balance. We don’t wish to imply from this that our setup was right and Mr. Rogers’ was wrong, however, The techniques with which we are dealing here are still essentially experimental, and their results largely unpredictable in many details. Therein lies their fascination for anyone willing to go beyond a purely passive approach to high fidelity. Since Mr. Rogers is one such reader, we say more power to him.

Opera for the People

I would like to second the recommendations for new Strauss opera recordings made by Mr. Cordova in his letter to High Fidelity published in May 1971. In only wish had he included a plea for Die schwiegruane Frau, another score that deserves a recorded performance.

Thinking over the implications of Mr. Cordova’s letter, it occurs to me that despite the fact that records are supposed to be a consumer product, the consumer’s wishes are not always solicited. When a company embarks on a worthwhile project with enthusiasm and taste (witness the recent Trojans of Berlioz), the results seem to be financially successful, but these enterprises are all too few. Why don’t we have a Benvenuto Cellini, or a Verdi Serenata, a good modern recording of Guillaume Tell or The Planung Angel? And what possible logic is there behind another RCA Aida or another Ballo in maschera from London?

I would like to suggest that High Fidelity take up the function of serving as a regular channel for consumer suggestions for new recordings. Responsible and imaginative suggestions made to your editorial board by readers for specific recordings could be screened and presented to a panel of a few women representing the major classical recording labels once or twice a year at a round-table discussion; the discussion itself could be published as an article in the magazine. In that way we might all learn a good deal about the realities of the recording business, and the companies might hopefully come to take an increased responsibility toward satisfying the public’s desires.

J. Thomas Riner
Clayton, Mo.

Slighted Sound Effects

Re the article on sound effects by Eugene Endres in your June 1971 issue ["There’s a Tweeter in My Tweeter"]; we feel that Mr. Endres did our company a great disservice by glossing over our contribution to the sound-effects industry. For that reason we think that some points in the article should be corrected.

1) Gennett Records was the first in this industry to produce sound-effects records, not Folkways Records. Gennett began in 1931 and produced until 1936. It should be noted that Thomas J. Valentiono, Sr., did most of the recording for them during this time.

2) Our label major Records, started producing sound-effects records in 1934 before companies like Folkways, Audio Fidelity, and Elektra were formed.

3) We do not produce "Some" sound.

Continued on page 12
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CIRCLE 17 ON READER-SERVICE CARD

September 1971
effects records as was noted in the article. Sound effects account for 60% of our catalogue and production music for the remainder. We offer a standard package of 500 sound effects on fifteen 1 P albums. We also have a backup library of 150 78-rpm records containing over 300 sound effects which are used for play productions throughout the entire country. We also offer an entire production music library for both amateurs and professionals which contains over seventy-three hours of music on 115 1 P albums.

We therefore feel that Mr. Endres unduly slighted Major Records, probably the largest producer of sound-effects records in the world. Francis T. Valentino
Executive Vice President
Thomas J. Valentino, Inc.
New York, N. Y.

Mr. Endres replies: I regret that Major Records feels I have done them a great disservice. I thought I had given them courteous mention in the article. But there is that matter of being "first." Indeed they were first in the area of production sound effects, but then, Fulton did not make the first steamboat and many dispute DeLorean's priority in making the first tricycle amplifier. Such claims are the meat for litigations that can extend over decades.

In my article, I was writing from the standpoint and interest of the average record buyer. While it is true that Major was first, their product was and is aimed at the professional user of recorded sounds, not at the casual listener— who sometimes listens to music instead of sound—no even at the home movie-maker who wants the recorded sound of a baby crying.

The sound effects on Folkways, Audio Fidelity, and Elektra were the first specifically marketed for the general record buyer, and also the first to be marketed through normal consumer channels. Major's records are still found in very few record stores, or sold only by mail direct from the company (at 150 West 46th Street, New York, N. Y. 10036).

This is not to say that one company's records are better than another's or that I was paid off with a free barrel of records (though I am open to negotiation). Perhaps I'm a victim of advertising, since I've rarely seen published ads for Major Records. Suffice it to say, they have a good, complete library of sounds, and so do other companies mentioned.

As for the qualification that Major produces "some" sound-effects records, I will stick by what I said in the article. Their library is reasonably complete, but I can conceive of more sounds than anyone could hope to fit on fifteen 1 P's. Don't forget that the whole of the Schnarman catalogue is devoted to the manipulations of mere twelve tones of the tempered scale (at least until electronic music came along).

So I concede Mr. Valentino's claim to firstness. I only wish that he could find time to write a history of the sound-effects business, which he has apparently been close to. I, for one, would be interested to see it.

Manon and Maturity

What a plethora of critical comments concerning soprano Victoria de los Angeles the June 1971 issue contained. On page 95 ("Recitals and Miscellany"): "Another delight from this charming artist" (her new "Spanish Folk Songs" disc). On page 13 of Musical America: "... full, rich, even sopranos that remind [italics mine] me often (in this role) of Victoria de los Angeles" (Adriana Malipour's Met debut). Then one comes to page 73 and the review of the Sills Manon: "To check my own judgment I played the 1956 EMI mono set of Manon (now on Sirelaphe) in which the heroine, the well-remembered and loved Victoria de los Angeles, gives a fine performance in her secure and melodic fashion." But now the consensus suddenly turns decidedly murky. "It was for long the standard by which I judged; but it is no longer Manon to my ears—just a very fine singing job by a mature lady." The enigma here is that George Movshon wrote all three reviews—same soprano, same critic (a man should never review for the same publication wearing two faces; it draws attention). Mr. Movshon continues: "Comparison with some of the great Manons of the past—Fanny Heldy, Ninon Vallin, Geraldine Farrar, and Galli-Curci—confirmed the stature of Miss Sills's achievement." Which was tremendous, to judge by the critical betrayal contained in the quoted passages. I frankly refuse to discuss what anyone should be able to hear for himself. Whatever merits one derives from Miss Sills's achievement need not lead one to the caddish conclusions expounded so smoothly by Movshon. But perhaps I chide him charitably: Mr. Movshon is an appointed arbiter on maturity. I cite this same review: "Miss Sills, to be ungentle, is no chicken." By George, you've said it!

On well, Angel has reissued the De Los Angeles/Monieux Manon on Sirelaphe regardless. Should we tear up everyone has his fond memories erased by renewed contact with this superseded set? Should we, Mr. Movshon? Even superstars will have to bear such scrutiny some day. Soon.

Robert Archdael
New York, N. Y.

Mr. Movshon replies: Mr. Archdael has a case with words and a needling disposition, but I am not sure what grave charge he levels at me. Miss De Los Angeles is a superb artist and my admiration for her has long been unabated. It is a measure of my praise for Miss Sills that her way of singing Massenet's Manon (in the new recording) reveals the character of the heroine more deeply and perceptively than even Miss De Los Angeles was able to. Youth is one of the attributes of Manon, an important element in any interpretation. The American soprano carries it; the Spanish one (for all the loneliness of her singing) does not.
Previn Meets Shankar

Previn's first EMI job was conducting the LSO in the Sitar Concerto of Ravi Shankar, with the composer as soloist. The problems of bringing two cultures together were formidable (especially considering that Shankar does not read Western notation), but the world premiere in London earlier this year revealed the work as sweet and amiable, nicely calculated to give Western listeners a painless lesson in raga forms.

The recording sessions in EMI's Abbey Road studio had their problems, since it was a bit difficult to get the composer's authoritative opinion on disputed notes in the score. The work has also grown considerably longer since its premiere (and not just because of freer improvisations from the soloist). It will now fill two LP sides. Christopher Bishop was the recording manager, and Previn was delighted to find a collaborator who shares his own dry sense of humor. Bishop's finely tuned impressions of certain recording artists (generally kind rather than malicious) always provide ample control-room entertainment at this producer's sessions.

Creepy Tuba. Previn's relations with RCA are still of the most cordial, and naturally he will complete the cycle of Vaughan Williams symphonies. The latest to be recorded is No. 5—taped just after a live performance at the Royal Festival Hall—and the four-session stint took in as well the rarely heard Vaughan Williams Tuba Concerto as well as The Wasps Overture. The soloist was the LSO's principal tuba—a Cambridge graduate still in his twenties—John Fletcher. I quoted Previn's recent comment that Fletcher's virtuosity on his unwieldy instrument is "creepy." After one of the more fantastic takes in these concerto sessions Previn suggested to

Continued on page 17
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Friends of "The Boy Friend." It was the morning after a concert of the International Society for Contemporary Music's Festival, at which Peter Maxwell Davies had directed his chamber ensemble, The Fires of London, in a brilliant performance of his Revelation and Fall. 1

I quickly learned why: the opening fanfare led to a richly scored climax in which the title tune was scored climax in which the title tune was

What the session (devoted exclusively to the orchestral tracks, with the singing to be overdubbed later) demonstrated immediately was that Davies is a dab hand at 1920-style orchestration, complete with banjo, slide whistle, and dirty trombone. There is more to it than that, of course; in his recent music the fox trot has been used on occasion as a stylistic background (rather as popular dances of earlier centuries served earlier composers), and The Boy Friend scoring is full of very subtle and personal touches.

The next sequence, an overture-medley, was recorded in three segments. The first was code-named "Elgar" for purposes of reference, and I quickly learned why: the opening fanfare led to a richly scored climax in which the title tune was decked with Engmatic and Pompous-Circumstantial counterpoints before breaking into dance tempo. There was some difficulty about balancing all these lines clearly, but Russell (whose BBC-TV biographies of musical figures, as well as the feature film The Music Makers, demonstrate a finely-tuned sense of the editorial uses of music) was insistent about their importance. As the section was being worked up, pianist Pruslin could be observed taking lessons on the slide whistle—a sight that would doubtless have surprised the audiences who attended his commendable recitals of Byrd, Beethoven, and Xenakis at the Queen Elizabeth Hall. Eventually "Elgar," followed by "Sousa" (another reference that was clear enough when heard) and "Rolls-Royce" (I'll have to see the film to figure that one out, however) were taken and sent off for copying.

Russell, a stocky, elegantly dressed man with a sort of shaggy greying pageboy haircut, and Davies, a thin intense figure in bright red tunic and blue trousers, make an oddly assorted pair, but their collaboration is obviously more good in her new role as a song-and-dance girl.

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Those thirty-two bars took nearly an hour before everybody was satisfied. A major difficulty was tempo—this was dance music, and it had to be danceable. Fortunately, someone had forgotten to remind the choreographic department about the session, but eventually a lis-some redhead, not yet quite awake, arrived and graced the studio floor with some fetching steps to certify the tempo.

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CIRCLE 57 ON READER-SERVICE CARD

Continued from page 17

than a casual one. Ken Russell Productions has underwritten the recording of two recent Davies works (negotiations for American release are in progress), and the director will stage the composer’s opera Taverner at Covent Garden next summer, with Colin Davis conducting. And there will no doubt be soundtrack albums of The Devils and The Boy Friend at the appropriate times. It promises to be a partnership that will enliven more than one art form for some time to come.

DAVID HAMILTON

LOS ANGELES

A Varèse Sonic Spectacular

Each April, when the Los Angeles Philharmonic subscription series ends and the Decca/London recording sessions begin, the orchestra moves out of its home in the Music Center Pavilion and onto the huge UCLA campus. This spring, from April 19 to 27, the orchestra and its music director Zubin Mehta were in residence in the university’s old, large Royce Hall for over twenty-seven hours of sessions with producer John Mordler and three Decca/London engineers.

Generally filled with students during the day, the corridors around the auditorium were quiet and relatively empty; the hall itself, its lobby, and its backstage area were off-limits to the unauthorized. Only once did I hear a barking dog (the campus has a notable canine population), and the only extramusical audio trouble during the sessions came from a thump-grind that was attributed to the aging elevator.

A room that generally hosts postconcert receptions housed London’s mobile control panel (which Mehta once used as a footrest, obviously without thinking), a closed circuit TV, playback equipment, and both loudspeaker and phone systems through which conductor and producer communicated. The stage was extended out over the seats, exactly halfway between proscenium and balcony, to put Mehta in the middle of the most resonant part of the hall. UCLA officials would like to believe that recording takes place in Royce Hall because the acoustics are so good. Actually, aside from the Philharmonic, very little recording has been done there, and some of the musicians seemed eager to be back in their familiar quarters. Several other players could be heard reminiscing nostalgically over the old days when the Hollywood Bowl Symphony recorded in the Goldwyn Studios.

These sessions filled three quarters of the Mehta/L.A. Philharmonic annual obligation to Decca/London. An all-Varese disc took care of the one-record-a-year of modern-music clause, and Holst’s Planets and a Liszt triple-I (Mazeppa, Orpheus, and Battle of the Huns) filled up the schedule. Mehta prefers to perform works with the Philharmonic before he records them, and he did so in this case.

The most interesting hours were spent on Varèse’s Arcana (Integrales and Ionisation complete the record), when Nikolas Slominsky, who conducted the first performance of the work, and Gerhard Samuel, the orchestra’s associate conductor and ex officio twentieth-century specialist, were on hand for consultation with Mehta. Samuel had been in charge of the preliminary rehearsals for Arcana, back before the orchestra began its 1970–71 season. During one of the breaks, the three conductors compared beat techniques for this difficult work. Slominsky, the oldest of the trio, was going at it wildly: “You’ll be ready for the revolution,” Mehta praised him. “I’ve already been through that,” retorted the Russian-born lexicographer/composer/former conductor.

On each recording day, but particularly when recording Varèse, Mehta was intent on as few spills as and as little tampering as possible—yet the takes still exceeded 300 by a healthy margin at the end of the penultimate day of sessions. Mehta wastes very little time rehearsing, gets almost everything on tape, and knows quickly what he wants or doesn’t want during playbacks (sometimes he even recalled the exact number of the take that took). Though hampered occasionally by recurring back trouble, the conductor still seems to exert even more energy in recording than he does in concert—he moves more, turns to the first violins or cellos more directly, offers more coaxing or warning facial expressions. But he too was under strain from the schedule. He impatiently waited for Mordler to announce “take 67” or whatever, and as the days passed he mimicked the producer’s British accent less frequently, moved faster, got more music played.

The Varèse works are more troublesome by nature than the Liszt or the Holst—percussion balance is crucial, textures tend to get too thick, a quintuplet can’t be a triplet plus a duplet. But at the point when Mordler asked for more Chinese block, the musicians seemed to have a hard time taking it seriously, and Mehta concluded that the producer just happened to like Chinese blocks.

“This is the only music where you can hear a high C on the trumpet,” Mehta said during one of the Arcana playbacks when transparency was still a problem. Then he summed up the work facetiously—and threw it into historical perspective: “Varèse the Wagnerian got himself overly influenced by Stravinsky this time around!”

KAREN MONSON

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Preview of the Coming

speaking of records

With a crescendo of rumors foretelling the imminent doom of classical records surging and eddying about them, the recording companies have continued defiantly to plan and record—at least as far ahead as next year.

Most of these forthcoming releases are listed below, and a glance tells us that some companies so far seem undaunted by the prophets of doom. Angel and DGG lead the pack with more projected releases than the other major labels and they are offering their customary quota of operatic undertakings, the most economically asphyxiating of recording projects. Many are of unusual interest: from Angel's Soviet affiliate, Melodiya, comes a complete recording of Mussorgsky's Sorochinsky Fair; on Angel itself, Klemperer's controversial Marriage of Figaro plus Karajan's Fidelio, and a new Meistersinger recorded in Dresden with the famous Staatskapelle also under Karajan.

This will be, incredibly, the only available stereo version of the opera. From London comes Boris Godunov, again with the ubiquitous Karajan; a Tannhäuser led by Solti; two Britten operas, Owen Wingrave and The Rape of Lucretia, both with the composer conducting; and the expected Italian opera vehicles—this time Un Ballo in maschera for Tebaldi and L'Elisir d'amore for Sutherland. DGG, aside from their praiseworthy Wagnerian enterprises of Lohengrin, and a live Parsifal from Bayreuth, with Philips, showing no sign of leaving the field to their older competitors, will serve up a Colin Davis Marriage of Figaro; American Columbia, generally not a reality, Europe will (hopefully) continue to supply hungry audiences with the familiar and intelligent extension into interesting, untried repertoire. But even more outstanding and important is the urgent need to re-evaluate the stranglehold of the musicians' unions.

Until the seriousness of those last two points is accepted as a reality, Europe will (hopefully) continue to supply hungry Americans with a generous array of music and talent, with catalogues brimful of "something for everyone," including large amounts of reissues of old recordings (indicated in the listings by a &); a plentiful collection of new names like Christopher Parkening, John Lill, Roberto Szidon, Michael Tilson Thomas, and Kyung-Wha Chung. And of course an abundance of "superstars" such as Karajan, Davis, Bernstein, Price, Nilsson, Richter, Askenazy, and Heifetz. And it goes without saying that the omnipresent Mr. Fischer-Dieskau, the "inseparable Superstar," will echo endlessly from every corner, on every label, in every guise, to remind us that his output alone can support the entire classical record industry!

Angel


Beethoven: Symphony No. 7. Chicago Symphony Orch.; Giulini, cond.

Brahms: Die schöne Magelone. Fischer-Dieskau; Richter.


Cabell and Marti: Great Opera Duets. London Symphony Orch., Mackerras, cond.


Saint-Saëns: The Complete Piano Concertos.

HIGH FIDELITY MAGAZINE
Season's Recordings

An Elisabeth Schwarzkopf Songbook, Vol. 3.
Geoffrey Parsons and Gerald Moore, pianos.
Sibelius: Kullervo; Swanwhite Suite; Scene with Crows from Kolvenia. Raill Kostiia, Uso Vitanen; Bournemouth Symphony Orch., Paavo Berglund, cond.
Verdi: Don Carlo Caballé, Verrett, Domingo; Royal Opera House Orch., Giulini, cond.
Wagner: Die Meistersinger von Nürnberg. Donath, Adam, Kollo; Dresden State Orch., Von Karajan, cond.

Handel: Judas Maccabaeus. Harper, Watts, Young; English Chamber Orch., Somary, cond.
Trumpet Concertos. Works by Haydn, Hummel, Albinoni, Torelli, Marin Binbaum; English Chamber Orch., Somary, cond.


Carambula: Rigoletto. Rossini; London Symphony Orch., Boult, cond.
De Pablo: Modus V for Organ; Organum I for Organ. Xavier Darasse.

Monteverdi: Madrigals. Purcell Consort of Voices; Grayson Burgess, dir.
Music of the Crusades. The Early Music Consort. David Munrow, dir.
Rachmaninoff: Cello Sonata. George Isaacs, cello; Valerie Tryon, piano.
Rachellse Award Winning Quartets. Allegri String Quartet.
Schütz: The Christmas Story. Ian Partridge; Heinrich Schütz Choir, Norrington, dir.
Schütz: Cantate Domino (Double Choir Motets). Heinrich Schütz Choir; Symphonie Sacrae Chamber Ensemble. Norrington, dir.
Schütz: The Christmas Story. Ian Partridge; Heinrich Schütz Choir, Norrington, dir.
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Columbia MASTERWORKS


Cambridge RECORDS

Handel: Agrippina conduit a marie; Arias from the Opera Agrippina. Carole Bogard.
Works for Percussion by Verdi: Lylyoff, and Norgaard. Bent Lylyoff; percussionist.

September 1971

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Brahms: Piano Quartet No. 1 in G minor.
Gilels: Members of the Amadeus Quartet
Brahms: Symphony No. 2. Berlin Philharmonic Orch., Abbado, cond.
Contemporary Wind Music. Works by Penderecki, Mayuzumi, Williams. Eastman Wind Ensemble, Donald Hunsberger, cond.
Ferrari: Presque rien No 1, Société II. Contemporary Instrumental Ensemble of Paris, Konstantin Simonovitch.
Scriabin: Piano Sonatas Nos. 4-10. Roberto Szidon.
Tchaikovsky: Piano Concerto No. 1. Argerich; Royal Philharmonic Orch., Charles Dutoit, cond.
Wagner: Lohengrin. Janowitz, King, Stewart; Bavarian Radio Symphony Orch., Kubelik, cond.
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LONDON RECORDS

Beethoven: Piano Concerto No. 3; 32 Variations on an Original Theme. Radu Lupu; London Symphony Orch., Lawrence Foster, cond.
Brunn: The Rape of Lucretia. Baker, Luxon;
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Tchaikovsky: Romeo and Juliet; The Tempest.

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HIGH FIDELITY MAGAZINE

Tchaikovsky: Suite No. 3. Moscow Philharmonic Orch., Bohm, cond.

Donizetti: L’Elisir d’amore. Sutherland, Pavarotti; English Chamber Orch., Ronyng, cond.


Mahler: Symphony No. 7. Chicago Symphony Orch., Solti, cond.


Verdi: Un Ballo in maschera. Tebaldi, Resnik, Pavarotti; San Cecilia Orch., Bartoletti, cond.


Wagner: Tannhäuser. Dernesch, Ludwig, Kollo; U.S.S.R. Army Chorus and Band; Columbia Symphony Orch., Walter, cond.

Wagner: Tannhäuser. Dernesch, Ludwig, Kollo; U.S.S.R. Army Chorus and Band; Columbia Symphony Orch., Walter, cond.

Bernstein: Music from Fancy Free, West Side Story, etc.; Royal Philharmonic Orch., Eric Rogers, cond.


The Impressionists. Works by Debussy, Ravel, Fauré, and Honegger; London Philharmonic Orch., Herrmann, cond.


Ravel: Boléro; La Valse; Pénélope. Royal Philharmonic Orch., Claude Monteux, cond.

Tchaikovsky: Symphony No. 4. Royal Philharmonic Orch., Fissoulari, cond.

Wagner: Great Moments. David Ward; New Philharmonic Orch., George Hurst, cond.

MELODYIA


Kalinnikov: Symphony No. 1. Moscow Philharmonic, Konstdarin, cond.


György Philharmonic Orch., Sándor, cond.


Tchaikovsky: Suite No. 3. Moscow Philharmonic, Konstdarin, cond.

Trumpet Concertos. Works by Arutyunian, Kryukov, Vainberg, Dokschitzer; Bolshoi Theatre Orch., Rozhdestvensky and Zurasin, cond.

Vasov: Concerto No. 1 for Cello. Sauguet: Mélodie concertante. Rostropovich; Moscow Radio Symphony Orch., Rozhdestvensky and Sauguet, cond.


Boxtuhbale: Solo Cantatas. Donath, Allmeyer, Stumpff; Bach-Collegium, Stuttgart, Kilving, cond.


Mozart: 6 String Quintets. Anna Mauhner; Tatrai Quartet.


Tardos: Various Works for Piano, Winds, and Strings. Andre Gentil, violin; D. Andersen, D. Ranki, pianos; Tatrai Quartet.


PHILIPS

Mozart: Clarinet Quintet, K. 581; Trio. K. 498. Bishop, piano; Brymer, clarinet; Allegri Quartet.

Mozart: Concert Arias. Werner Helmweg, tenor.


Mozart: Flute Quartets. Bennett, flute; Grumiaux Trio.

Mozart: The Marriage of Figaro. Freni, Gazzarri; Wixell; BBC Symphony Orch., Davis, cond.

Music from the Court of Burgundy. Musica Sacra; John Beckett, dir.


Tchaikovsky: Symphony No. 6. Concertgebouw Orch., Haitink, cond.

Vivaldi: The Four Seasons. 1 Musici.

Wolf: Lieder. Ameling; Baldwin.

EDITIONS DE LOISEAU-LYRE


Stuart Burrows: Songs of Love and Sentiment. Constable, piano.


RED SEAL

Alkan: Concerto for Solo Piano. Ogdon.


Handel: Messiah (highlights). Shaw Choral and Orch., Shaw, cond.

Mozart: The Piano Quintets. Rubinstein; Guarneri Quartet.


Leontyne Price: I Wish I Knew How It Would Feel to Be Free. Rust College Choir, Mrs. L. van Buren Holmes, dir.

Leontyne Price: 5 Great Operatic Heroines.

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The equipment reviewers of leading hi-fi and other technical publications have gone on record that there's nothing better than this $279 floor-standing speaker system, regardless of type, size or price. (Reprints on request.)

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

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Schumann: Symphony No. 9; Quartet No. 3. Juilliard String Quartet; Philadelphia Orch., Ormandy, cond.

VICTROLA STEREO

The Seraphim Guide to German Lieder. Baker, Fischer-Dieskau, Schwarzkopf, etc.
Stravinsky: Capriccio, Serenade in A; Duo concertante; Piano Rag-mus. Stravinsky. Piano: Samuel Bashkin, violin; Straram Concerts Orch., Ansermet, cond.

STEREO Treasury SERIES


Bach: Cantatas Nos. 1-10. (First in a series which will comprise all the cantatas.) Esswood, Equiluz, Van Egmon; Vienna Choir Boys; King's College Choir; Concentus Musicus; Leonhardt; Consort; Willcocks, Harnoncourt, Leonhardt, cond.

High Fidelity Magazine
THE SANSUI QS-I
QUADPHONIC SYNTHESIZER

SANSUI QS-I

4-CHANNEL SOUND FROM ANY 2-CHANNEL SOURCE

Senses and recovers the ambient information hidden in your stereo discs, tapes and broadcasts

After having discovered that the ambient components of the original total sound field are already contained in hidden form, in conventional stereo records, tapes and broadcasts, Sansui engineers developed a method for sensing and recovering them. These subtle shifts and modulations, if re-introduced, breathtakingly recreate the total of the original sound as it existed in the recording or broadcast studio.

The heart of the Sansui Quadphonic Synthesizer* is a combination of a unique reproducing matrix and a phase modulator. The matrix analyzes the 2-channel information to obtain separate direct and indirect components, then redistributes these signals into a sound field consisting of four distinct sources.

This type of phase modulation of the indirect components, applied to the additional speakers, adds another important element. It sets up a complex phase interference fringe in the listening room that duplicates the multiple indirect-wave effects of the original field. The result is parallel to what would be obtained by using an infinite number of microphones in the studio (M₁ through Mₙ in the accompanying illustration) and reproducing them through a corresponding number of channels and speakers.

The startling, multidimensional effect goes beyond the four discrete sources used in conventional 4-channel stereo, actually enhancing the sense of spatial distribution and dramatically expanding the dynamic range. Also, the effect is evident anywhere in the listening room, not just in a limited area at the center. And that is exactly the effect obtained with live music! This phenomenon is one of the true tests of the Quadphonic system.

The Sansui Quadphonic Synthesizer QS-1 has been the talk of the recent high-fidelity shows at which it has been demonstrated throughout the country. You have to hear it yourself to believe it. And you can do that now at your Sansui dealer. Discover that you can hear four channels plus, today, with your present records and present stereo broadcasts. $199.95.

*Sansui®
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*Patents Pending

CIRCLE 48 ON READER-SERVICE CARD

SANSUI ELECTRONICS CORP.
SANSUI ELECTRIC CO., LTD., Tokyo, Japan • Sansui Audio Europe S. A., Antwerp, Belgium

SEPTEMBER 1971
CBS Demonstrates Compatible Four-Channel Disc

The CBS dark horse in the quadriphonic sweepstakes finally stepped up to the starting gate as CBS Laboratories vice-president Benjamin B. Bauer and his associates demonstrated their version of a four-channel disc at the recent Montreux, Switzerland international conclave of the music and high fidelity industries. Sponsored jointly by CBS and Sony Corporation, the new disc is called SQ and is compatible with existing stereo (or mono) playback equipment. That is to say, it will render four separate sound channels when played on an existing stereo system to which has been added a special decoder, another stereo amplifier, and two more loudspeakers. Played on a system without the added hardware, the SQ disc will sound like any conventional stereo disc.

This compatibility also extends to broadcast use: for quadriphonic transmission, the SQ disc may be played in the normal manner at the station and sent out as a mono or stereo signal in the usual way. If the broadcast is in stereo, listeners at home can hear it that way or—with the added hardware—in a four-channel presentation.

In listening tests that permitted instant comparison of the master four-channel tape and the four-channel disc processed from it, we seldom were able to detect differences between the two formats. We also could cut out the rear loudspeakers and hear a normal "up front" stereo version of the matrixed program; it sounded comparable to good regular stereo, with appropriate channel separation and full-range tonality.

The CBS process uses a double-helical modulation concept that permits the record-cutting head to engrave the record-groove walls in the normal stereo manner while simultaneously encoding the groove with the two additional "back" signals. The technique is suitable for all kinds of music including classical and "surround-sound" pops; and Columbia Records plans to release fifty titles in the new format by the year’s end. The new SQ discs will list for $1.00 more than conventional stereo discs.

Sony is involved in the SQ project in two ways. CBS/Sony Records (a venture jointly owned by Columbia Records and Sony Corp.) will be distributing the SQ discs in Japan. Sony also is making the necessary hardware, and SQ decoding components are expected on the American market this fall.

Also scheduled for early release are the first Columbia four-channel tapes—both on open reels and in eight-track cartridges. Like tapes previously released in these formats by other companies, the Columbia issues will play on the four-channel tape equipment that is now available. (For recent announcements in this field, see our report in this column last month.) That is to say, the tapes will represent discrete—rather than encoded—four-channel sound.

Ampex: New Head, New Tape, New Format

Ampex Corporation has, in rapid succession, made three announcements recently that will be of interest to high fidelity equipment owners. All three concern a product that has not previously been available from Ampex, and one in fact features a product that has never been marketed before in the consumer products field.

This last is a six-element cassette head, containing two erase gaps and two pairs of record/play elements. The head is intended for use in the new Ampex bi-directional cassette equipment and does not require repositioning when tape-travel direction is reversed. By mounting the erase elements on the same head and using a dual capstan drive (one capstan uses the "window" in the cassette normally occupied by a separate, single-direction erase head), Ampex says it achieves greater stability of motion and accuracy of erase-head tracking than can be achieved by conventional designs.

Then there is Ampex’s new tape, with a chromium-dioxide (rather than iron-oxide) magnetic coating. It will be available as the 363 Series of blank cassettes and, according to Ampex, will be appropriate for use on all equipment provided with compensation for chromium-dioxide tapes. Among the newer units with this compensation are several now being introduced by Ampex itself.

The new format is the eight-track tape cartridge for which Ampex had not previously made any equipment. Among the models the company is now introducing are some designed to play four-channel cartridges for discrete (nonencoded) quadriphonic sound.
The experts agree on the Citation Eleven Preamplifier.

The Citation Eleven is unquestionably one of the best preamplifiers we have measured. It would take better ears—and instruments—than ours to find any unintentional signal modification in the output of the Citation Eleven. As a rigorous test of the Citation Eleven's "wire with gain" properties, we connected it up so that a signal could be led either around it or through it on the way to the power amplifier. Any response aberration introduced by the Eleven would then be audible during A-B comparisons. Perhaps needless to say, the Eleven left the signals (including white noise) completely unaffected in any way detectable by our ears. It is an ideal companion for any really good basic power amplifier. In combination with the Citation Twelve, it would be hard to beat.

Using and listening to the Eleven is a music-lover's delight: the unit does nothing to the source material that you don't want it to do. It is one of those superior audio devices that functions without seeming to be in the circuit; it lets you listen through the system back to the program material. We have no doubt, in fact, that the performance capabilities of Citation equipment exceed the response capabilities of commercial program material. Just to nail home this point we played a stereo tape that had been dubbed from master tapes containing a variety of orchestral and vocal selections which we could now hear several generations earlier than we normally would in their commercial-release versions. Their superiority was clearly audible on Citation equipment, once again demonstrating that "Citation sound" is nothing more or less than accurate reproduction of musical sound.

Let me say it right out. The Citation Eleven is a fitting companion to the power amp I wrote about last time. That is, the pair of units represent no-compromise audio. The Citation Eleven does away with the need for any frequency shaping devices, since it has practically all that anyone could desire. With music, you can correct for recording misequalization, if it exists, or you can add your own. You can compensate for room acoustics to a remarkable degree, increasing the bass to make up for speaker deficiencies, and boosting or cutting the highs—extreme or middle—to make up for room furnishings. In short, there is very little that you cannot do with the Citation Eleven. It is a worthy addition to the already distinguished reputation that the name Citation has achieved over the many years since they first made their appearance.

Stereo Review:

Audio:

We're eager to send complete information.
Write Harman-Kardon, 55 Ames Court, Plainview, N.Y. 11803

CIRCLE 26 ON READER-SERVICE CARD

The state of the amplification art moves inexorably on. Just as I get to a point when I begin to believe that preamps hardly can be improved, some manufacturer proves me utterly wrong. Harman-Kardon has done it this time—and not for the first time, either. I might add that the Citation Eleven is now the preamp that acts as the control of my own music system. And there it will stay for the foreseeable future. What more can I say?
Citation circuitry in H-K receiver

Harman-Kardon's premium line of Citation components has given some of its circuit design to a new stereo receiver, the 930, according to the company. Two separate power supplies deliver regulated voltage independently to left and right channels of the receiver's power-amplifier section. The FM/AM tuner section includes dual tuning meters. Monitoring is provided for two tape recorders. Price is $369.95.

Panasonic's deluxe cassette deck

Among the unusual features of the Panasonic RS-275U stereo cassette deck are separate capstan and "reel" motors, a (non-Dolby) noise suppression system, Panasonic's Hot Pressed Ferrite heads (claimed to outlast and outperform conventional heads), a "memory" system that allows you to return to a preselected point in the cassette, and a high-density/standard tape bias switch. The unit sells for $249.95.

Fairfax offers Wall of Sound speaker system

Within its unusual proportions (4 ft. high, 2½ ft. wide, 6 in. deep) the Fairfax Wall of Sound contains twelve drivers: two for the low bass, two for the low midbass, two for the upper midbass, four for the midhigh range, and two wide-dispersion tweeters. The internal construction of the enclosure is described as containing eight separate chambers and an "integrated cyclone labyrinth system," plus crossover networks with unusually sharp roll-off characteristics. The system sells for $399.50.

Dolby units from Teac

Several versions of the Dolby noise-reduction circuitry (Type B, for home use) have been announced by Teac Corp. Shown here is the Model AN-180 with four separate Dolby circuits, allowing recording through one pair and simultaneous off-the-tape monitoring through the other pair. The unit includes mike preamps and sells for $289.50. A simplified model, the AN-80, contains only one pair of Dolby circuits and sells for $129.50. A compact version of the AN-80 is planned, as the AN-50, for use with Teac's A-23, A-24, and A-25 cassette decks. In addition, the new Model 350 cassette deck contains built-in Dolby circuitry and sells for $279.50.

Sherwood's digital FM tuner

Sherwood Electronic Laboratories has announced availability of the SEL-300 stereo FM tuner featuring dual tuning meters and crystal-controlled digital-tube frequency readout. Sherwood rates the SEL-300's sensitivity at 1.5 microvolts (IHF). The unit has direct outputs for two tape recorders. It sells for $579.
THE CRITICS HAVE PUT THE
COMPETITION
IN THEIR PLACE

Specifically, the leading consumer testing publications have continually top-rated Sherwood receivers over all others. Our S-8900 shown here leading the pack is no exception.

Of course, we worked hard to get those ratings.

The S-8900 has a powerful 225 watt (± 1dB) amplifier (48 watts RMS per channel at 8 OHMS). FM distortion is the lowest in the industry—0.15%. There’s an impressive 3 year parts warranty, plus 1 year labor, too.

The S-8900 features solid-state ceramic FM IF filtering. Exclusive FET FM interchannel hush control. A zero-center tuning meter. There’s an extra front panel tape record/dubbing jack. And six pushbuttons for every effect you could possibly want.

At $399.95, our S-8900 gives more top-rated quality than any comparable or lower priced model.

That’s what we’ve always said. Only now you don’t have to take our word for it.


SHERWOOD SOUNDS EXPENSIVE
Approved for 4-channel

Empire's top of the line cartridges now feature new high performance parameters designed for 4-channel capability. With even greater frequency response and compliance than ever before, these cartridges will track at forces so low they barely touch your records.

999VE/X Professional—Recommended tracking force ¼ to 1¼ grams. List price $79.95.

1000ZE/X Measurement Standard—Tracks as low as .1 gram in laboratory playback arms. List price $99.95.

Each 1000ZE/X and 999VE/X cartridge is individually adjusted to have a flat frequency response within ± 1 dB from 20-20,000 Hz. Stereo separation is better than 35 dB at 1 Hz and remains 25 dB or better all the way out to 20,000 Hz. Overall frequency response is a phenomenal 4-40,000 Hz. There are no electrical or mechanical peaks and total THD distortion at the standard 3.54 cm/sec groove velocity does not exceed .05% at any frequency within the full spectrum. Uses a .2 x .7 hand polished miniature diamond for exceptionally low mass.

Empire cartridges are enthusiastically acclaimed by the experts; for example:

Stereo Review Magazine who tested 13 different cartridges rated the 999VE tops in lightweight tracking ability.

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

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

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

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

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

Popular Science Magazine picked the 999VE hands down as the cartridge for "the stereo system I wish I owned" designed by Electronic Editor Ronald M. Benrey.

X designates newest improved version.

For further details write: Empire Scientific Corp., 1055 Stewart Avenue, Garden City, N. Y. 11530.
First Quadriphonic Receiver
Does Fine Job in Stereo Too


Comment: The Fisher 701 differs from conventional stereo receivers in two respects: it has four amplification channels (rather than the usual two), and it incorporates the extra switching facilities to handle four-channel sound (matrixed or "discrete") or to feed four speakers from stereo or mono sources in a variety of ways. No dematrixing circuitry is built in; a suitable accessory decoder must be used to reconstruct the intended four-channel effects from "4-2-4" matrixed program material. The FM tuner section similarly includes no provision for receiving four-channel broadcasts by any of the proposed special multiplex techniques. Should such a broadcast method be approved by the FCC, Fisher says it will make available a special multiplex board to adapt the 701 to receive these transmissions.

Since the control functions are the key to the 701's operation, let’s examine the faceplate. In the upper section from left to right are a signal-strength tuning meter with mode indicators and Stereo Beacon (stereo FM indicator) above it, the tuning dial, tuning knob, two horizontal sliders for front and rear volume settings, and (below them) four Autoscan tuning buttons—whose functions will be explained later. On the bottom section of the front panel are a headphone jack, a four-position tape monitor switch ("front and rear" for monitoring four-channel tapes, "off" for monitoring other program sources, "front" to pick up the normal stereo pair of tape tracks, and "rear" for hearing only the other two tracks), and the selector (phono, FM, AM, and two aux positions). Next comes the mode switch: mono (identical signals fed to all four speakers), two-channel stereo (both left speakers receive left signal, both right speakers the right signal), four-channel stereo (all four channels are independent of each other), four-channel reverse (front-right and back-left signals are interchanged), and two-plus-two-channel (back signals are derived from front signals on the same side, but reduced in level by 3 dB to simulate reverberant sound coming from the rear of the hall). Next comes the bass and treble controls and the left-to-right balance control. (The
previously mentioned volume sliders double as the front-to-back balance control.) Bass, treble, and balance all have separate sections for adjusting front and back channel pairs. The last knob controls outputs: to headphones, main speakers, remote speakers, or all speakers. At the end of the bottom section are separate high-pass filters for front and back, an FM-muting defeat button, and separate loudness buttons for front and back channel pairs.

At first glance the back panel is somewhat intimidating: aside from the antenna connections at the top of the right end, all connections are made along the bottom. First, beginning at the left, are the AC line cord and fuse, then a pair of convenience outlets. Next is a DIN socket used for in plug in the remote tuning control, then all sixteen (!) speaker connections: hot and common terminals for four main speakers plus four remote speakers. Finally, ranged in the usual left-and-right pairs, are the input and line output connections: tape monitor in, back and front; recorder output, back and front, aux 2 in, back and front, aux 1, back and front, and phono in—a total of eighteen jacks. Oh yes, there’s also a connection for “ground from turntable or tape recorder.”

The FM tuning system is like that of any conventional receiver unless the Autoscan button (the first of the four we passed over in our description of the front-panel controls) is pressed. When it is pressed, the station may be selected in either of two modes (continuous or one-station) by using the appropriate buttons on the front panel or their equivalent on the remote-control unit that plugs into the rear panel. In either case the tuning meter now becomes a tuning dial, and special calibration for that purpose lights up. If you press the “continuous” button, the tuning system will scan the FM band from bottom to top until you release the button; then it will zero in on the next station of sufficient strength to pass the circuit’s threshold. The “one-station” button changes tuning one station at a time. The fourth button in the Autoscan group switches in an AFC (automatic frequency control) feature.

In performance, both AM and FM sections of the 701 are at least as good as the tuner portion of a very good two-channel stereo receiver. IHF sensitivity was measured as 1.9 microvolts, and for stronger input signals the quieting descends rapidly to better than –48 dB and remains there. And lab findings further confirm the tuner’s excellence in terms of capture ratio and freedom from noise and distortion. In our cable-FM test we logged some fifty-five stations, of which thirty-nine were received well enough for long-term listening or recording—a very good count. AM reception was clear and trouble-free.

For purposes of stereo listening, the 701’s amplifier section may be rated at a conservative 40 watts per channel into 8-ohm speakers with low distortion. In four-channel operation the extra demands on the power supply reduce this per-channel figure to something closer to 30 watts per channel, but they’re still good. Clean watts and power is sufficient for just about any four speaker systems in just about any room—or a full complement of eight speakers if they are reasonably efficient and/or the rooms in which they are used are neither too large nor too “dead.”

The front-panel switching is complex, but it is well thought out and we could see no way in which it could be simplified significantly without hampering flexibility of operation. That flexibility—really excellent in the 701—will be of paramount importance in any four-channel product of this sort, in our view, until the present welter of competing technologies has been thinned out.

The multiposition monitor switch on the 701 is particularly significant since it allows the receiver to be used in conjunction with such accessory four-channel devices as the EVX-4 decoder. (See separate story.) In using the 701, we developed a number of quite different hookup schemes, combining stereo, decoded four-channel, and discrete four-channel operation in various ways, and even working a separate Dolby unit into the system in different configurations. At no point did the 701’s controls let us down by preventing any reasonable and desirable setup; the limiting factors, when we encountered them, invariably were elsewhere in the system. But these systems were complicated and frequently produced no sound simply because a monitor or decoder switch somewhere had been left in the wrong position—a price one simply must pay if one wants to experiment with quadriphonics as they now exist.

Before leaving the subject of controls, we should mention the 701’s balancing system. Much four-channel equipment has two balance controls: left-right and front-back. The second of these is handled in the 701 by the relative positions of the front and back volume sliders, an arrangement we tended to favor because we found that we altered front-back balance frequently and often killed back response altogether—either for purposes of comparison or to remove an unwanted four-channel effect. Once set for the room the left-right balance remained untouched. Perhaps if quadriphony becomes standardized the front-back balance also will remain untouched; until then, the Fisher system seems appropriate.

Of the various possible modes of operation with the 701 we found we used regular stereo, discrete four-channel, and encoded four-channel (via an accessory decoder) most frequently. Desirability of both the two-left-plus-two-right and left-and-right-plus-simulated-ambience modes would appear to depend to a large extent on room acoustics. These modes might be desirable in solving specific acoustic problems, but offered relatively little in a normal room.

All things considered, Fisher has done a remarkable job of solving the problems of so new an equipment format. The 701 offers excellent performance in either stereo or any of the quadriphonic modes suggested in this report (to say nothing of mono, of course). But there is a price to be paid both in terms of the added complexity of the system and in dollars: the 701 costs considerably more than a stereo receiver of comparable quality. Some readers will prefer to invest the extra money in better stereo; but those bent on exploring the wonderful world of quadriphony have, in the 701, a product that really does the job.
Fisher 701 Additional Data

**Tuner Section**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capture ratio</td>
<td>1.5 dB</td>
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<tr>
<td>S/N ratio</td>
<td>-71 dB</td>
</tr>
<tr>
<td>IM distortion</td>
<td>0.2%</td>
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**Amplifier Section**

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</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>40 Hz</td>
<td>0.45%</td>
</tr>
<tr>
<td>400 Hz</td>
<td>0.37%</td>
</tr>
<tr>
<td>1 kHz</td>
<td>0.30%</td>
</tr>
<tr>
<td>19-kHz pilot</td>
<td>-47 dB</td>
</tr>
<tr>
<td>38-kHz subcarrier</td>
<td>-52 dB</td>
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**Input characteristics (for 40 watts output)**

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<tr>
<th>Source</th>
<th>Sensitivity</th>
<th>S/N</th>
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</thead>
<tbody>
<tr>
<td>phono</td>
<td>2.7 mV</td>
<td>58.0 dB</td>
</tr>
<tr>
<td>aux 1</td>
<td>200 mV</td>
<td>67.5 dB</td>
</tr>
<tr>
<td>aux 2</td>
<td>193 mV</td>
<td>67.0 dB</td>
</tr>
<tr>
<td>tape mon</td>
<td>290 mV</td>
<td>70.0 dB</td>
</tr>
</tbody>
</table>
E-V’s Quadriphonic Decoder


Comment: The EVX-4 is an accessory device designed to be inserted between a stereo control preamplifier and a four-channel power amplifier—or between the appropriate sections of a receiver, using either the preamp/amp jumpers sometimes provided for that purpose or the tape monitor circuit. It can be used with a four-channel receiver (such as the Fisher 701 reviewed above) or with any stereo receiver supplemented by a separate stereo power amplifier and an additional pair of speakers. (In any four-channel system, of course, a total of four speakers will be needed, no matter how they are driven.)

The basic purpose of the E-V decoder is to reconstruct four channels of information from recordings that had previously been appropriately matrixed into the two channels of a stereo disc or a stereo FM broadcast. Program material so matrixed will reproduce as stereo on conventional equipment; with the EVX-4 or equivalent circuitry they can be used as four-channel source material. Electro-Voice also makes the necessary encoder, which has been used by several recording companies and a number of stations to prepare discs and FM broadcasts for public consumption.

Unencoded recordings and broadcasts also contain relationships between the two signals of the stereo pair that, as it happens, will be “read” as four-channel encoding by the EVX-4 circuit, producing quadriphony where none was intended. Hence the decoder can be used as a way of synthesizing four-channel effects from your present stereo library and regular stereo broadcasts—an interim road to quadriphony until such time as “the real thing” may become commonplace.

Bench tests confirm the circuit to be well designed in terms of the usual criteria. The frequency-response curve is virtually flat across the audible range. The slight droop between 10 and 20 kHz (less than 0.3 dB) is visible only because we have expanded the usual scale in drawing the curve. At more than 68 dB, the signal-to-noise ratio is greater than you are likely to find in most other components of your system and better than you will find in commercially available program materials. (The over-all S/N ratio of good, “clean” FM reception, for example, generally will be no better than 50 dB, if that.) And distortion is very low. Note that here, like E-V in its published specs, we have chosen 0.25 volts as the reference level. Actual levels of the loudest musical passages may run higher or lower than this figure depending on the program source and the design of your preamplifier. If loud passages actually deliver the nominal one volt of tape recorder line connections on your equipment, for example, you can expect a working S/N ratio of 80 dB. Input voltages, however, should not run higher than the 2.5 volts at which clipping begins.

The accompanying table of relative output values per channel gives some indication of the effects that can be expected when playing conventional stereo program materials through the decoder to provide a simulated quadriphonic effect. When both channels are driven equally the input represents that from a mono source—for example, a soloist centered in the original stereo perspective; the left-only input represents a sound source at one extreme side of the stereo image. That centered soloist continues to appear front-center in the
simulated quadriphonic image, with the signal intended for the back speakers some 17 dB lower than that for the front speakers. When the source is at one side (at the left in this test) the two outputs (front and back) for that side will deliver a higher level than the outputs for the opposite side. The back speaker on the side toward the original source will be fed by a signal only 2 dB higher than that feeding the back speaker on the far side, however. This minimal separation between back speakers appears to be the reason for the vagueness or instability of location that we noted on listening to sound sources located at the extreme sides in stereo recordings, heard via the decoding circuitry.

The back panel of the EVX-4 contains the AC line cord plus ten phono jacks, left and right pairs for each of five functions: input, tape out, tape in, front out, and back out. (Note that here, as elsewhere in HIGH FIDELITY, we have used the word “back” instead of the actual marking, “rear,” to simplify the process of abbreviation—otherwise “R” would have to do double service for both “right” and “rear.”) On the front panel there are two controls: master gain and mode (source decode, tape decode, and two-channel tape monitor).

These designations presuppose that normal use will be in conjunction with the tape-monitor facility in the stereo system. Leads are run from the tape monitor output on the preamp or receiver to the input connections on the EVX-4, from the line output on the tape recorder to the tape-in connections on the EVX-4, and from the decoder’s tape-out jacks to the line inputs on the tape recorder. If you are using a four-channel receiver, all four outputs on the EVX-4 would be connected to the appropriate monitor jacks on the receiver; if separate amplifiers or power amplifier sections are used, as in adapting a stereo system to four-channel use, the front outputs of the EVX-4 would be connected to the monitor jacks on the main stereo system, and the back outputs to the added power amplifier.

With either type of system you may listen to decoded sound by setting the main system’s switch to the tape monitor position and switching the EVX-4 to source decode (if the source is a two-channel stereo tape, you would, of course, use the tape decode setting.) Should you want to return to conventional stereo, you need only turn off the monitor switch (or switch to the two-channel monitor position). While you are listening to quadraphony, the master gain on the EVX-4 will control all four speakers. We found ourselves leaving this control set to the maximum-gain position, however, since the output level then matches that of the input (“unity gain”) and hence the levels produced by the system in the regular stereo mode. Otherwise a return to stereo operation can entail a startling (and, from the speakers’ point of view, dangerous) increase in levels. But note that the master control must be used in systems in which a simple stereo power amplifier, without volume control, is used on the rear speakers. If you plan such a system, we would advise that you choose an accessory amplifier somewhat less powerful than that in your main stereo system so that you can use the volume control of the latter to balance front and back outputs.

A conventional two-channel tape recorder can be used effectively in conjunction with the EVX-4's tape terminals, and can even make quadraphonic recordings under some circumstances. Since the pair of signals that enter the input terminals of the EVX-4 are fed unaltered to its tape output connections (that is, they are not decoded regardless of switch position on the EVX-4), you can continue to make stereo recordings in the usual way. If what you are recording happens to be encoded four-channel sound—meaning, normally, that the program source is either matrixed four-channel discs or FM—the recording you produce also will be so encoded. Either the original source or the recorded signal from the tape can be monitored quadriphonically, although the signals handled by the tape deck are, from its point of view, indistinguishable from conventional stereo.

Real quadraphony buffs, if the breed exists, may find one point to disparage. The EVX-4 does not adapt easily to a system including sources for both encoded and discrete four-channel sound. By discrete we mean, of course, a system in which all four signals retain their separate identities, unencoded, throughout the reproduction chain. Since there are no connections for the back channels of a discrete (four-channel four-track open-reel or four-channel eight-track cartridge) tape recorder, extra switching normally will be needed to select either the output of the tape deck or that of the EVX-4 as the source for the back-speaker amplifiers. The difficulty of managing this extra switching will vary considerably with the equipment chosen for the system, of course, but it could have been solved altogether by adding extra jacks to the back of the EVX-4 and extra contacts to its mode switch. Since quadraphonic tapes can be made from encoded sources on a conventional deck using the method described above, however, the ability to play four discrete channels from tape likely will be of interest only in working from commercially recorded tape or, in the case of the no-holds-barred home recordist, four-channel tapes made “live” using four microphones.

**EVX-4 Decoder Additional Data**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
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<tr>
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<tr>
<td>Maximum input at clipping</td>
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<td>S/N ratio (ref. 0.25 V rms output)</td>
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<td>IM distortion (at 0.25 V rms input)</td>
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</tr>
<tr>
<td>THD (at 0.25 V rms input)</td>
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<tr>
<td>Relative signal distribution in decode mode</td>
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</tr>
<tr>
<td>(at 1 kHz, 0 dB equals 0.25 V)</td>
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<tr>
<td>RF ch: 0 dB</td>
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<td>left input drive (0 dB)</td>
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<td>only (0 dB)</td>
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</tr>
<tr>
<td>RB ch: -16.5 dB</td>
<td></td>
</tr>
<tr>
<td>RB ch: -15.5 dB</td>
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<tr>
<td>LB ch: -6.0 dB</td>
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**IM distortion (at 0.25 V rms input)**

<table>
<thead>
<tr>
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<th>IM distortion</th>
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<tbody>
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<td>2 KHz</td>
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</tr>
<tr>
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<td>0.02%</td>
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**S/N ratio (ref. 0.25 V rms output)**

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**THD (at 0.25 V rms input)**

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>THD</th>
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</thead>
<tbody>
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<tr>
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<td>100 KHz</td>
<td>0.0005%</td>
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**Relative signal distribution in decode mode**

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<th>Relative Signal Distribution</th>
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</thead>
<tbody>
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<td>-1.5 dB</td>
</tr>
<tr>
<td>5 KHz</td>
<td>-4.0 dB</td>
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<tr>
<td>10 KHz</td>
<td>-17.5 dB</td>
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<tr>
<td>20 KHz</td>
<td>-16.5 dB</td>
</tr>
<tr>
<td>50 KHz</td>
<td>-15.5 dB</td>
</tr>
<tr>
<td>100 KHz</td>
<td>-6.0 dB</td>
</tr>
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</table>
Instant Quadriphony

How the Fisher and E-V Worked Together

by Robert Long

What good, you might ask, are the four-channel products reviewed in this issue if so few broadcasts and recordings are available in quadriphonic form? The question obviously has bothered manufacturers as well as consumers. All quadriphonic equipment is designed to be used for regular stereo as well, and the "compatibility" of quadriphonic recordings and broadcasts with respect to stereo reproduction systems has been a major concern of companies venturing into four-channel program material.

And yet four-channel equipment continues to appear much more rapidly than four-channel recordings. It is with a certain air of glee, then, that manufacturers of decoding equipment capable of sorting out four channels of sound from two-channel matrixed program material have discovered that quadriphonic effects can be derived from conventional stereo recordings and broadcasts as well. "Now you can enjoy the wonders of four-channel sound even without the real thing to play on our equipment," they say to us. Copout? Stopgap? Snowjob? I decided to find out.

The system I set up in my living room consists of the Fisher 701 four-channel receiver with the EVX-4 Stereo 4 decoder inserted between preamp and power amp sections via the tape-monitor connections. The front-channel amplifier pair drive Heathkit AS-38 speaker systems, the rear pair feed AR-6s. For source material I used a number of open-reel (Sony and Ferrograph) and cassette (Harman-Kardon and Teac) decks, with and without Dolby circuitry (Advent's), and a turntable (usually a Lenco L-75 with a B&O SP-12 cartridge)—in addition to the FM tuner section of the Fisher 701.

Since my living room is on the large side and fairly live, tending to blur stereo images, the normal listening area is toward one end. I set up the speakers in this area with the "back" pair toward the unused end of the room. The speakers ended up spaced approximately in a square. The "front" wall is the deadest, being solid bookshelves, while the open space at the back seems to produce some ambience simulation, increasing the sense of front and back by contrast to the more usual demonstration setup with speakers in the room's four corners. Whether or not this is the cause, the effect is appreciably more spacious than that in similar demonstrations I have heard elsewhere.

For over a month now I have been living with this setup and playing my regular stereo records and tapes through it. But before describing what I hear let me point out that my experience may or may not be a valid index to what you will hear if you set up a similar system. For one thing, we are talking only of conventional stereo recordings, never intended for playback in this fashion. The quadriphonic effects they display are accidental and vary drastically from recording to recording; if you play different recordings, all bets are off. The room, the speakers, and so on can and do influence the end result. Most important of all is the question of what you expect from your recordings. Some effects that delight one listener may offend another. Would-be conductors will revel in a wraparound orchestra; the more passive may prefer the musicians to keep their distance.

One of the first recordings I tried was Maazel's reading of Stravinsky's Firebird Suite (DGG 138006). The expected bass reinforcement was evident in the opening section, the perspective solidly up front with only a subtle sense of extra space added by the rear speakers: a convincing concert-hall effect in fact. If this is the way stereo recordings were going to sound through the EVX-4, I began to think, those who complain of being in the center of the orchestra need have no fear. But then came the explosion at the beginning of King Kaschel's dance. Percussion instruments rattled from the back speakers or jumped about from one speaker to another. The serene concert-hall mood was destroyed.

This instability of placement is in evidence from time to time in playing many classical records, and is one of the less attractive aspects of instant quadriphony. (Again, the recordings were not made for quadriphonic playback; the effect therefore is unpredictable.) In many cases, however, there is very little sense of specific instrument location—just an impression of being surrounded by music. How pleasurable the impression is depends to a large extent on the music. In the elegant formality of a Haydn symphony, for example, I find it quite out of place. In the late Romantics I don't. Particularly striking is the way the opening section of Haydn's Creation (Karajan, DGG 270 7044) came across in synthetic quadriphony. His carefully placed dissonances—so evocative of the chaos described in Genesis when heard in the normal stereo context—seem more like an inept attempt to prefigure Berlioz. When the listener finds himself in the orchestra, the natural order of things—an order that Haydn intentionally violates to create his "chaos"—is broken and the effect destroyed.

Would this also be true of stage music—opera for instance? Some operatic recordings are hurt by "decoding," but Puccini and his contemporaries tend to come out clearly the better for it. To be on stage with Tosca as she kills Scarpia is far more effective than peering at her through opera glasses. Magda Olivero's recordings of Fedora (London OSA 1283) and scenes from Francesca da Rimini (London 26121), galvanizing enough in conventional stereo, are overwhelming heard this way. The voices, incidentally, keep their frontal perspective since they are normally centered in the original stereo. The effect is like that of sitting on the hood of the prompter's box during a performance. (Having some open space, rather than a dead wall, behind the back speakers may contribute to this impression.)

Chamber music lends itself to instant quadriphony less gracefully. On some recordings (the Beethoven woodwind pieces in Vox Box SVBX 580, for example) the instability of placement is all too apparent at times. Occasionally an individual note from a particular player may show an affinity for one speaker, while the instrument otherwise seems to be located elsewhere. Re-
cordings with a more spacious sound generally are more pleasing, though here the effect is of several musicians at some distance from each other in a large room. (Perhaps they "aren't speaking.")

Pops—and particularly rock—by and large come off best of all in decoded sound. The more conventional the recording (a singer backed by a fairly large orchestra with strings, for example) the less obvious is the effect. Often it is no more than an added, but unspecific, sense of space. The Band, which had annoyed me in its best-selling LP (Capitol STAID 132) by the acoustic vagaries of the recording (the epitome of multiple mono, as opposed to true stereo), was aided little by contrast to some of the bigger groups recorded in a more natural-sounding way. Individual tracks on some of The Band's cuts bear no sonic relationship to each other, being much deader, much liver, or what have you. Spreading the sound around the room doesn't help it coalesce into a united whole. The advantages of quadrophonic listening lie more in the opposite direction: the disentanglement of tracks that tend to obscure each other in stereo. Even on The Band's record this sorting-out adds transparency to some of the more massive effects.

It pays off in a really big way for Simon and Garfunkel. On Columbia CS 9363, Scarborough Fair/Canticle is utterly spellbinding with the four-channel setup. The Silent Night cut, which had struck me as a bit gimmicky in stereo with its radio announcer droning news of war, assassination, and depravity against the sotto-voce carol, is deeply moving in expanded form. The room fills with quiet singing, while the radio—sharply in focus near the right front speaker—seems to have been left on by accident, making its bitter contrast to the song far more poignant than when the sound is collapsed into a single wall. That one cut alone is worth the fuss.

This has been a fascinating month—and full of surprises, not all of them pleasant. The playing of stereo recordings through a Stereo 4 decoder obviously is no thoroughgoing substitute for true four-channel sound. At no time—either in my own living room or in the public demonstrations I've heard—has this way of listening to records struck me as approaching the convincing spatial ambience or the specific, detailed localization of the best discrete four-channel demonstrations (using four-channel tape equipment). But it presents some provocative possibilities that give me reason for both hope and fear: hope that quadraphony eventually can be worked out in terms that will make it a viable (meaning, among other things, affordable) commercial reality, and fear that the temptation to record gimmicky effects in order to sell recordings and to compromise technical standards in order to keep costs low may undermine, rather than enhance, the listening experience.

One of a number of interconnection setups used to derive quadrophonic effects from stereo program sources, using the Fisher 701 receiver and Electro-Voice EVX-4 Stereo 4 decoder. Open-reel and cassette decks can be interchanged; discrete-four-channel (O-8 cartridge or open-reel) playback equipment can be connected to aux. 2 inputs for comparison purposes.
First Automatic to Offer Tangent Tracking


Comment: Newest and best of the Garrards is the Zero 100 which, for the first time, offers the advantages of tangent tracking in an automatic record player. The trick is accomplished by an articulated arm/head system: parallel to the tone arm and linked to it by pivots is an auxiliary arm. As the pickup moves across a record, the head or shell pivots (in response to movement of the auxiliary arm) so that the stylus remains tangent to the record groove. This action is not quite the same as radial tracking but its effect is very similar: it permits the playback stylus to traverse the disc while remaining tangent to the groove, thus eliminating tracking-angle error. The actual "error" read by CBS Labs using the new arm was within plus or minus 0.25 degree which is the accuracy limit for reading its test instrument.

The use of a pivoted/articulated arm to achieve tangent tracking permits its combination with a turntable for automatic changer use since it is the inward swing of an arm that triggers the change mechanism. The Zero 100 thus may be used as a fully automatic for a stack of records, as an automatic single-play unit, and as a completely manual player, including the option of letting the platter rotate first and cueing the disc at will. In the latter two modes, the short spindle rotates with the record, a desirable feature that eliminates possible enlarging of center holes. A built-in cueing device permits raising and lowering the arm in any mode, and a locking device secures the arm when the unit is turned off.

Aside from tangent tracking, the new arm has many other worthwhile and advanced features. A platform slides out of the shell for convenient installation of the pickup, a gauge supplied with the unit permits adjusting the pickup position for correct stylus overhang. Another adjustment, on the front of the shell, sets the vertical angle for manual or automatic play; in the latter mode the pickup angle is optimized for the third record in a pile, which is the generally accepted compromise setting for changer use. The arm is balanced initially by a movable rear counterweight; vertical stylus force then is set by moving a sliding weight along the underside of the arm, measuring the stylus force applied against an engraved scale. CBS Labs found this adjustment to be absolutely accurate; there was no measurable error in the arm's scale when checked against laboratory instruments.

Anti-skating compensation is applied in an ingenious and effective way by means of a built-in magnetic system: a pair of opposing ceramic magnets are mounted in the arm pivot together with a magnetic shield. The shield, which may be moved by a topside control, regulates the amount of magnetic repulsion, and thus the amount of anti-skating, exerted on the tone arm. The anti-skating control itself has two scales, one for elliptical stylis, the other for conicals. Again, CBS Labs found that the amount of force applied was correct across the diameter of a record. In passing, we also might note that the absence of springs—and the use of precision sliding members—for these adjustments tends to make them more accurate and more stable over long periods. Arm friction laterally measured 0.1 gram—not the lowest ever measured but low enough. Vertically, the friction was very low, below 20 milligrams. Stylus force needed to activate the automatic trip was 0.3 grams. Tested with a Shure V-15 Type II Improved cartridge, the arm showed a resonance at 6 Hz, with a 7-dB rise—lower (better) than average. Altogether, this new arm strikes us as an excellent piece of engineering; it probably is the best arm yet offered as an integral part of an automatic player.

The two-speed (33 and 45 rpm) platter is driven by Garrard's synchronous motor which proved, in CBS Lab tests, to run absolutely accurate, with no measured speed error, at test-voltages of 105, 120, and 127 volts AC. To deliberately vary the speed (and thus the pitch of recorded music) there's a control that permits modifying either speed by 3.5 per cent either way. Average flutter was insignificant at 0.07 per cent. Rumble, measured as -56 dB by the CBS-ARLL method, compared favorably with that measured in other top-line automatics. For record stacking, the Zero 100 employs the "two-point" support system found in other recent Garrards: a combination of the retracting member in the long center spindle and a small plastic platform at the outer edge of the platter. In addition to the controls and adjustments already described, the Zero 100 has a record-diameter selector concentric with the speed selector and vernier adjustment. An illuminated built-in strobe indicator peeps out near the front of the turntable. An escutcheon at the right holds three tab controls for automatic stop/start, manual off/on, and cue play/lift. Operation is simple, quiet, and reliable. The change cycle in automatic mode takes 7 seconds with the turntable set for 33 rpm.

All told, we feel that Garrard has come up with a real winner in the Zero 100. Even without the tangent-tracking feature of the arm, this would be an excellent machine at a competitive price. With the novel (and effective) arm, the Zero 100 becomes a very desirable "superchanger" with, of course, manual options.

The Zero 100 is supplied with stereo signal cables, a short spindle, a long spindle, and a single-play 45-rpm doughnut adapter. Available accessories include three optional bases: Model WB-2, walnut, $19.95; Model B-2, molded plastic, $6.50; Model B2P Powermatic (controls power to system), $15.95. A hinged dust cover, Model D-2, $6.50, fits all three bases. Also available is a mounting board, Model MB-17, $12.25, for custom built-ins. An automatic 45-rpm doughnut spindle, Model LRS-100, lists for $3.80; additional cartridge side-holders, Model C-3, are priced at $1.75 each.
Bose Offers Reflected
Sound in Low-Cost Version


Comment: The much acclaimed Bose 901 speaker system (see HF test report, August 1968) now has a lineal descendant that shares some of the original's features but which costs much less, can be placed flat against a wall, uses no equalizer, and operates on lower amplifier power. The new Model 501 uses three speakers in an arrangement that is, vis-à-vis Bose's original design, a compromise but which nevertheless does present a blend of direct and reflected sound and which, regardless of design theory, sounds superb for a speaker in its price class.

A two-way system, the 501 employs a 9-inch woofer installed in a sealed chamber. On the topside of this chamber are mounted two tweeters, angled so as to radiate "backwards" against the wall, from which the sound is reflected into the listening area. A dividing network provides frequency crossover at 1,500 Hz, with a fairly broad overlap of coverage on both sides of the nominal dividing frequency. Rated input impedance is 4 ohms. Efficiency is moderate, and Bose recommends at least 15 watts continuous power per channel, with a maximum rated capacity of 100 watts per channel.

When judged against the 901, the 501 sounds—as expected—second-best. The bass response of the lower-priced model is not as deep or as distinct, and its clarity on complex orchestral passages is not quite as open. But compared with other speakers in its own price class, the 501 emerges as distinctly above average.

The impedance curve measured at CBS Labs shows a 5.3-ohm value following a small bass rise; the curve across the audio band is unusually smooth and never goes below 5 ohms. Over-all frequency response was clocked as within plus or minus 6.5 dB from 37 Hz to 17.5 kHz and a comparison of the three curves shown here indicates that the middles and highs are indeed strongest in the "omnidirectional" mode, which of course confirms the system's design aim. In supplemental listening tests we found the bass doubling slightly at about 45 Hz, although at 40 Hz the response was still strong and clear. Doubling did not increase as we went down the scale, and a 30-Hz tone, while sounding weaker, remained as clear as the 40-Hz tone. Middles and highs were of course beautifully dispersed; there was no evidence of beaming at any frequency. A slope toward inaudibility began at 15.5 kHz. White noise response was very smooth and similarly very well dispersed. The Bose 501 has no tone adjustment con-

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*Distortion data is taken on all tested speakers until a level of 100 dB is reached, or distortion exceeds the 10-per-cent level or the speaker produces spurious output known as buzzing, whichever occurs first.
trols and indeed none are needed: the system is inherently well balanced and sounds good in various sizes and types of rooms. Any minor touching up for tonal preference can be accomplished by the controls on one’s amplifier.

Speaking of amplifiers, the Bose 501 is not nearly as power hungry as its predecessor, the 901. It needed only 6.25 watts input to produce a level of 94 dB at 1 meter. It also is quite robust and could take steady-state power of 100 watts to produce an output of 108.5 dB without distorting significantly.

Installing a pair of the new 501s is simply a matter of standing them on the floor against or away from a wall, and then adjusting their relative positions from each other and from the adjacent walls, the only proviso here being to leave at least 18 inches on either side of each 501 so that the sound from the tweeters can follow the optimum path for the bounce-and-reflect pattern. The 501 thus offers above-average performance for average requirements in terms of cost, amplifier power, and installation. As such it can bring a good measure of the superior sound of its costlier prototype to a wider listening public.

Teac Produces a Cassette Deck—
and a Superior One


Comment: Teac’s reputation in this country is founded almost exclusively on a series of solidly built open-reel tape decks whose performance characteristics average well above those of most tape recorder lines. It was with particular interest, therefore, that we approached the A-24, a first-generation cassette model from the same company. Teac had let it be known in the trade several years ago that cassette hardware was in preparation, but actual availability was repeatedly postponed “until we are entirely satisfied with the product.” With what would Teac be entirely satisfied?

The answer, presumably, is the A-24. It is a deck of quiet excellence that contains some unusual features but no frills—that is, no Dolby circuitry, bias switching, or similar technical elaborations. The A-24’s performance specifications don’t match those of Teac’s open-reel equipment, of course—that would be too much to expect of cassettes as they now exist—but the unit resembles the open-reel decks in its solidity of construction, handsomely subdued styling, and excellent performance with respect to other cassette equipment.

The three controls at the right of the top panel betray some differences between Teac’s thinking and that of other companies on the subject of cassette hardware. To the rear of this panel is a four-position mode switch: record from mike or DIN connections, record from tuner, record from line, and play. This multiplicity of inputs (all easily accessible on the back panel) offers considerably more flexibility in hooking the A-24 into your stereo system than one usually finds on cassette equipment. Most users probably will make their connections only to the line inputs (and the output jacks, of course), so the extra flexibility will be of limited value to them. Of value to all users, we think, is the separate playback position on this switch, a feature that prevents accidental erasure, even in using cassettes on which the erasure-prevention key has not been punched out. These keys or tabs—one for each direction of play—are at the back of the cassette. When they are pushed firmly with an appropriate instrument they will break off, allowing a record-defeat switch on the A-24 and equipment.
NEEDS NO NEW AMPLIFIER FOR 4-DIMENSIONAL SOUND

Connect the inexpensive Dynaco Quadaptor™ to your existing stereo amplifier (or receiver). Keep your present two speakers in front. Then add just two matched, eight ohm speakers in back. That's it. Now you can enjoy four-dimensional stereo—a significant increase in realism.

The Quadaptor™ provides four directions of sound from new material specifically recorded for the purpose. Equally important you can presently enjoy all the depth and concert-hall sound already on your existing stereo recordings but which have not been audible until now due to the limitations of conventional two-speaker playback. The manner in which the Quadaptor™ sorts out the four different stereo signals unmask this hitherto hidden information to utilize everything that has been present on your stereo recordings all along. The Quadaptor™ adds nothing to the recording. It is not a synthesizer. It brings out directional information which has previously been hidden in the recording.

The Quadaptor™ provides four-dimensional stereo from today's FM stereo broadcasts and tapes as well as discs. No modifications are required on any of your existing stereo equipment.

Most satisfying results are derived when high quality, full-range speakers are used in back, since it is faithful reproduction of all the audio frequencies that provides the greatest sense of spatiality. Fortunately, you do not have to spend a lot of money to buy good speakers. At $79.95, the compact Dynaco A-25 provides highly accurate reproduction, so much so that the Stereophile Magazine calls them "probably the best buy in high fidelity today."

Write now for the name of the nearest dealer where you can now hear the Quadaptor™ and four-dimensional stereo.

*$19.95 kit,
$29.95 factory-assembled.
like it to trip and preventing erasure. The play-only position on the A-24 is a more easily reversible way of achieving the same end.

The other two knobs in this top-panel group control recording level and output level. Each is a double knob allowing individual control of front and back channels. Many cassette decks do not have the output level control, relying on a master gain control or input level control on the associated equipment to achieve appropriate listening levels. In terms of matching the A-24 to the levels presented by other program sources, we find its output control a valuable addition. Since it influences meter readings when the deck is switched to the playback mode, the meters can be used as a quick check of levels being fed to the listening system.

When the mode switch is in any of the recording positions the meters read the incoming signal, making it possible to preset recording levels without pushing the record button on the so-called piano-key control bank. Controls in this group are fairly standard: record, stop/eject, rewind, fast-forward, "play" (actually the forward-motion control for either recording or playback), and pause. The action of these controls is solid and positive—noticeably better in this respect than most cassette equipment. To the right of the piano-key group, beyond the meters, is the power on/off switch. At the far left corner of the top plate is a three-digit index. Microphone inputs (miniature phone jacks) and headphone jack are on the bottom front panel below the meters.

The meters, because their two scales are close together, allow the eye to evaluate a stereo pair of signals with exceptional ease. They are designed for a peak-reading action whose overload point falls where one would expect the "0-VU" indication; i.e., where the white section of the dial joins the red section. (Actually there is no 0-VU point, since the meters are uncalibrated. Teac says simply that the recording level should be chosen so that the needle "has maximum swing in the white area of the scale, but does not enter the colored area.")

In testing the A-24, CBS Labs used TDK type SD cassettes, recommended by Teac for use with the deck. The results of those tests show the A-24 to be a deck of excellent quality. Particularly striking is the flatness of the response curves. Totally absent is the peak in high-end response sometimes designed into playback electronics in an attempt to overcome the limitations of cassettes in this area. Teac's approach has two advantages: an intrinsic naturalness to the sound it produces, and avoidance of the exaggerated tape hiss that goes with a peak in playback response. The A-24 is, in fact, one of the quietest non-Dolby decks we've used, approaching even the Dolbyized equipment.

Mechanically too it is excellent. The hysteresis drive motor is uninfluenced by normal fluctuations in line voltage (though Teac recommends adding a voltage regulator where the AC power is particularly erratic). When the tape runs out, the transport automatically stops and retracts the pinch roller—an important feature if mechanical parts are not to be damaged by static contact. And even in playing piano passages in cassettes whose tape previously had exhibited a tendency to bind, introducing serious wavering of the tone, the sound was full and true, devoid of audible wow. The solidity of the A-24 is particularly welcome since this is a point on which manufacturers generally seem most willing to skimp. In sum, the A-24 is an excellent choice for a well-built basic cassette deck.

**Teac A-24 Additional Data**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed accuracy, 1½ ips</td>
<td>105 VAC: 0.3% fast</td>
</tr>
<tr>
<td></td>
<td>120 VAC: 0.3% fast</td>
</tr>
<tr>
<td></td>
<td>127 VAC: 0.3% fast</td>
</tr>
<tr>
<td>Wow and flutter, playback</td>
<td>0.15%</td>
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<tr>
<td></td>
<td>record/playback: 0.20%</td>
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<tr>
<td>Rewind time, C-60 cassette</td>
<td>1 min. 7 sec.</td>
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<tr>
<td>Fast-forward time, same cassette</td>
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<tr>
<td>S/N ratio (ref. 0 VU, test tape)</td>
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<tr>
<td>playback</td>
<td>L ch: 52.5 dB</td>
</tr>
<tr>
<td>record/playback</td>
<td>L ch: 49.0 dB</td>
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<tr>
<td>Erasure (400 Hz at normal level)</td>
<td>56.0 dB</td>
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<tr>
<td>Crosstalk (400 Hz)</td>
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<tr>
<td>record left, playback right</td>
<td>35.0 dB</td>
</tr>
<tr>
<td>record right, playback left</td>
<td>35.0 dB</td>
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<tr>
<td>Sensitivity (for 0 VU recording level)</td>
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<tr>
<td>line input</td>
<td>L ch: 89.0 mV</td>
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<td>tuner input</td>
<td>L ch: 85.0 mV</td>
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<tr>
<td>mike input</td>
<td>L ch: 0.27 mV</td>
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<tr>
<td>Accuracy, built-in meters</td>
<td>Left: exact</td>
</tr>
<tr>
<td></td>
<td>Right: exact</td>
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<tr>
<td>IM Distortion (record/play)</td>
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<td></td>
<td>L ch: 5.5%</td>
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<tr>
<td></td>
<td>R ch: 7.5%</td>
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<tr>
<td>Maximum output, 0 VU</td>
<td>L ch: 0.84 V</td>
</tr>
<tr>
<td></td>
<td>R ch: 0.84 V</td>
</tr>
</tbody>
</table>

**REPORTS IN PROGRESS**

Scott 433 Digital FM Tuner
B & O SP-12 Phono Cartridge
Telex 811R Eight-track Recorder
The Scott Innovators have done it again with 18 exciting new models for 1971-72.

<table>
<thead>
<tr>
<th>Component Description</th>
<th>Model</th>
<th>Power Ratings</th>
<th>Price (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 channel stereo Quadrant® components</td>
<td>443 AM-FM 4 or 2 channel receiver 4 x 18 or 2 x 35 watts*</td>
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<td>499 4 channel amplifier 4 x 40 watts</td>
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<td>367 AM-FM stereo receiver 2 x 32 watts</td>
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<td>477 AM-FM stereo receiver 2 x 70 watts</td>
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<tr>
<td>AM-FM stereo tuners and amplifiers</td>
<td>431 AM-FM stereo broadcast monitor tuner</td>
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<tr>
<td>433 FM stereo digital frequency synthesizer tuner</td>
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<tr>
<td>490 stereo amplifier 2 x 70 watts</td>
<td>299.90</td>
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Controlled impedance full range speaker systems

<table>
<thead>
<tr>
<th>Model</th>
<th>Power Ratings</th>
<th>Price (USD)</th>
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<td>S-51 two-way speaker system, 10&quot; woofer</td>
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<tr>
<td>S-11C three-way speaker, 10&quot; woofer</td>
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Decorator controlled impedance full range speaker systems

<table>
<thead>
<tr>
<th>Model</th>
<th>Power Ratings</th>
<th>Price (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-41 two-way speaker system, 8&quot; woofer</td>
<td>69.90</td>
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<tr>
<td>S-51 two-way speaker system, 10&quot; woofer</td>
<td>89.90</td>
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<tr>
<td>S-11C three-way speaker, 10&quot; woofer</td>
<td>99.90</td>
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Console stereo systems

<table>
<thead>
<tr>
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<td>Salem AM-FM stereo console 140 watts IHF</td>
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<td>Carlisle AM-FM stereo console 80 watts IHF</td>
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<tr>
<td>Decorator AM-FM stereo control console with pair of S-10 speakers 90 watts IHF</td>
<td>499.90</td>
<td></td>
</tr>
</tbody>
</table>

Al Scott stereo consoles feature Garrard automatic turntables and Pickering V-15 AT2 cartridges.

Before you buy any stereo component or system, ask your dealer to show you the new Scott line for 1971-72.
These are the new KLH Model Eighty Professional Headphones.
**This is their frequency response.**

![Frequency Response Graph](image)

**Naturally.** We’re sure that you’re not surprised that our headphones are virtually distortion-free. What probably surprises you is that you can get KLH headphones in the first place. Actually, it makes a great deal of sense. We know that many people who own our loudspeakers also listen to headphones. Why shouldn’t they be able to get the same quality of sound from their headphones as they get from their speaker systems? So we’ve introduced the new KLH Model Eighty Professional Headphones. We call them “professional” because you can actually plug them into a 600 ohm studio line, as well as use them with practically any home music system. Also, you can wear them for hours without any strain because they are much lighter and sleeker than conventional headphones.

But what really makes our Model Eighty Professional Headphones so unique is their sound. If you can imagine headphones that sound more musical than electronic, you’ve got a pretty good idea of what ours are all about. Stated simply, they sound like our loudspeakers. And that has got to make them the most unique headphones you’ve ever heard.

The Model Eighty Professional Headphones cost $49.95.† They’re at your KLH dealer now. Hear them soon. We think you’ll love them a lot.

Naturally.

For more technical information on the Model Eighty, write to KLH Research and Development, 30 Cross St., Cambridge, Mass. 02139. Or visit your KLH dealer.

†Suggested retail price.
* A trademark of The Singer Company
It took an assassination to bring it about, but there is finally a Federal commitment to the arts, as exemplified by the opening this month of

The JFK Center for the Performing Arts

by Byron Belt

Crystal and carpet, even marble and mirrors do not culture make; yet they may prove harbingers, if Washington's new John F. Kennedy Center for the Performing Arts does indeed reflect a new commitment to the latest American revolution. Life and liberty through the pursuit of the arts may not bounce fully formed from Edward Durrell Stone's monumental Kennedy memorial construction, but it is certain that the arts in America are destined for considerable change, and probably for the better.

The massive one-building complex of four auditoria will debut starting on September 8 with a gala month-long festival that will surpass the cultural binges associated with Chicago's famed Columbua Exposition and the multi-event openings of Lincoln Center.

More importantly, the sort of governmental disinterest and neglect that have impoverished our arts to a degree unknown in any other wealthy nation should never again be possible. The JFK Center alone can never reconcile Congress or the people to the sort of commitment envisioned by Amyas Ames and his associates in "Partnership for the Arts," whose aim is an annual Federal provision for the performing and fine arts equal to 6½ miles of superhighway construction ($200 million). The new center is, however, a pretty vivid example of the kind of co-operation between government, foundations, business, and individuals that is nec-
necessary if the arts are to survive, much less thrive, in an age desperately in need of their insights and inspiration.

America has traditionally been more willing to build grand monuments to art than to support the spirit or sustain the intellect, but Washington—for all its edifice complex—has been sadly lacking in providing even minimal physical facilities for the performing arts.

President John Adams made the first official pronouncements in favor of a national center for culture, but not until Dwight D. Eisenhower signed the authorization for the National Cultural Center Act on September 2, 1958, did another American President attempt anything concrete. In spite of Eisenhower's statement that the challenge of the cultural center's development "offers each of us a noble opportunity to add to the aesthetic and spiritual fabric of America," sheer public lethargy required President John F. Kennedy to extend the fund-raising deadline in 1963. Only the assassination of President Kennedy, and the subsequent bipartisan designation of the center as the sole official memorial in Washington, provided sufficient impetus for the project to get under way financially.

President Lyndon B. Johnson turned the first shovel at the magnificent 17-acre Potomac River site in 1964, and construction was begun in 1966. Presiding opening night in the President's Box (a pretentiously regal feature of each of the three major auditoria) will be Richard M. Nixon, whose political mentor had begun it all a baker's dozen years before.

The man given greatest credit for bringing the JFK Center from planning to fruition is Roger L. Stevens, the millionaire businessman and Broadway producer who has been the nonpaid chairman of the board of trustees since his appointment by President Kennedy in 1961.

Stevens, who was special assistant to the President for the arts from 1964 to 1968, and chairman of the National Council on the Arts from 1964 to 1969, is seen by everyone in Washington as the difference between complete disaster for the project and its glistening completion this month.

In talking with congressmen, artists, business leaders, and the JFK staff, I found the admiration for Stevens almost worshipful. The quiet, unpretentious man hardly appears the dynamo he is reputed to be, but he has stamped his imprint indelibly on the entire project.

Stevens' first task, and surely the one for which he was better equipped than the usual arts-society leader, was to win the trust of Congress. His down-to-earth simplicity and easy, straight answers to all questions seemed to calm the fears of those members of both the Senate and House less than dedicated to the role of the arts. An astute ability to maneuver and apply appropriate pressures has enabled Stevens to build successfully on the confidence he inspires.

As originally conceived in the Eisenhower era, there was a rather naive assumption that the national cultural center would be built and supported entirely by private money. The government was willing to provide the land, but no real funding.

The location and financing of the proposed facilities offered the bloodiest and most time-consuming battles. Washington business generally favored a midtown site, and struggled to make the center a part of urban renewal plans. Congress, however, strongly favored the river location with its dramatic setting, and Congress won.

Since Washington hosts more than seventeen million visitors every year, and the JFK memorial will be a prime goal of nearly every one of them, the Potomac setting offers practical as well as scenic advantages. Parking, for example, a horror in the center of town, should be ample, with a 1,600-car garage facility augmenting nearby space. The garage itself was financed by a special Congressional loan of some $20 million, with repayment to begin in 1978. Months before the center's debut, the garage was already paying its way by renting space during the day to Federal workers at the State Department and other agencies who park at the river front and are bused to their overcrowded office areas in town.

Basic financing of the JFK Center was, of course, not quite so easy, nor expected to be reimbursed in financial terms. Until the death of President Kennedy, the efforts to raise funds were only marginally effective. When designating the center as the official national memorial, Congress was able to rationalize a major investment, and approved $15.5 million as a challenge to matching funds from nongovernmental sources. At the time, this was the largest grant of any kind to the arts, and happily it helped establish a pattern for more. In October 1969, as inflation boosted costs, President Nixon signed a bill authorizing $7.5 million more in matching funds, in addition to the loan for the underground parking facility.

All of the government funds have been matched privately. Five million dollars came from the Ford Foundation, one million from the Rockefeller Foundation, and half a million each from the Old Dominion and Joseph P. Kennedy, Jr. foundations. Another five million dollars or so have been contributed by some 400 firms, and the remainder from smaller foundations and individuals.

William McCormick Blair, Jr., the JFK Center's general director since 1968, is currently in charge of raising another three million dollars or more to

Byron Belt is a syndicated critic for the combined Newhouse/Chicago Daily News-Sun-Times Service. He served as the first Director of Performing and Fine Arts for Nassau County, New York.
wind up all the building and initial launching expenses, and to assure large blocks of seats at modest prices for senior citizens, students, and such.

The dapper, witty former ambassador to Denmark and the Philippines seems to have the knack of putting the touch on potential benefactors, and Blair has already supervised receipt of gifts from more than thirty countries that have made unsolicited major contributions in honor of the slain president.

Among the gifts, none was more important than 3,500 tons of Carrara marble, cut to specifications (and worth in excess of a million dollars), donated by Italy. Others of the more spectacular gifts include eighteen crystal chandeliers (which viewers will either love or loathe) provided by Sweden for the Grand Foyer; a handsome red and gold curtain for the Opera House from Japan, and other major furnishings from Denmark, Ireland, Israel, Germany, and Norway. All the fancy trimmings are, or should be, incidentals. The facility itself is valid only insofar as it meets the serious needs of people and the arts.

That Washington was in dire need of appropriate space for the performing arts none but the dullest Philistine could deny. While the city is blessed with splendid art museums, the performing aspects have been seriously neglected. Constitution Hall, with its 3,800 seats, has been the home of the National Symphony and other concert groups. It has frequently proven too large, its acoustics and ambience less than conducive to audience development.

Because the Arena Stage now has two superb facilities, the needs of local theater are well provided for; but there is little other than the aging National Theater available for touring attractions and big musicals. Opera and ballet have been relegated to make-shift halls, and resident organizations have suffered accordingly.

The new facilities include an opera house seating 2,322, a concert hall for 2,762, a theater named in honor of President and Mrs. Eisenhower in appreciation of their having provided the initial plans (and to soften the objections of some potential contributors less than enthusiastic over giving to anything named for a Kennedy) and a film theater for 500.

Each of the three larger halls features, in addition to a Presidential Box accommodating twelve people, separate reception areas which connect with the Grand Foyer. The latter, described in promotional material as "one of the largest rooms in the world," runs along the entire 630-foot length, overlooking the Potomac. In spite of personal reservations about the severe but gaudy chandeliers, the Grand Foyer, with its windows soaring six stories, may well prove the greatest joy of the massive edifice.

The building designed by Edward Durrell Stone has been termed everything from awe-inspiring to awful, magnificent to moribund, "Miami Beach on the Potomac" to "the jewel of the city." There is some truth in almost anything one may say about Stone’s creation. It is certainly glittering nouveau riche. But in considering its size and that the design strives for grandeur, it must be recognized that in a city of monuments, if the arts were to make any real impact, their symbol in stone would have to be just a bit more impressive than anything nearby.

Thanks to a spectacular natural setting, reflecting pools and elaborate plantings outside, and shiny marble and crystal within, the John F. Kennedy Center for the Performing Arts cannot help but make a big impression. Stone, whose architecture displays not a hint of fancy or humor, revealed a touch of each during a conversation when he noted that he didn’t know about death and taxes, but "fountains and chandeliers, along with sex, are surely here to stay."

The architect’s decision and execution of a complex of four theaters under one roof will provide lasting fuel for argument, but his contention that
each of the auditoria was designed to "provide for the needs of the art, artists, and audience" and not the box office should earn praise from everyone but commercial managers.

The opera house, for example, has a stage and backstage area comparable in size to the Met's Lincoln Center home, but the seating capacity is over a thousand less. It is thus likely that acoustical properties and sightlines will be more satisfactory than a larger hall could provide, and performers should be able to deliver their best with greater comfort and consistency.

The concert hall, which in shape and atmosphere is very akin to Boston's famed Symphony Hall, is larger than the opera house, with most of the capacity on the large, oval orchestra level. Its 2,762 seats, in contrast with the 3,800 in Constitution Hall, mean that the National Symphony's subscription concerts will each be given three times, as opposed to twice previously.

Antal Dorati, whose first year as music director of the much-troubled National Symphony has already indicated his capacity to mold an orchestra of major caliber, likes the "feel" of the new hall and was most excited after testing the acoustics with the orchestra on stage several weeks prior to the opening. Dorati, an admitted "perfectionist," very much approves of the idea of playing each concert at least three times. Dorati indicated during a lively discussion that he hopes to "train the critics" to come to the second or third performances rather than the traditional firsts. With Inge Borkh singing Elektra and Yvonne Loriod pianoing in the American premiere of Messiaen's *La Transfiguration de Notre Seigneur* among the highlights, Dorati's problems may be keeping the critics away from the repeats!

Dorati, like nearly everyone associated with the JFK project, is delighted with the local potentialities of the center's facilities, but also realizes the importance of broader national implications. "Every week should be dedicated to one state or another, featuring their performing talents from student ensembles to professional symphony, opera, and dance," the conductor noted. "It isn't my role to plan over-all policies, but what member of Congress could refuse funds when his own area would be represented? Just think, Utah alone could provide a first-rate symphony, choral groups, and an important new dance troupe—and automatically two senators and two representatives are on the arts bandwagon."

The Dorati logic is very much what Roger Stevens and his associates are counting on to win continued support, not only for the Washington center but for the arts in general. Once rural representatives in government (and they remain dominant, even in this urban age) see that support for the arts touches their own people and not merely big-city folk, it will be politically expedient to provide the necessary funds.

The Eisenhower Theater, which will not open formally until January, is similar to a major Broadway house in size and facilities. Its 1,142 seats will offer a comfortable place for drama, and a small pit had this former producer dreaming of intimate musicals and chamber opera. Prior to the opening, the theater has first claims to assured excellence.

While all the halls are equipped for films, television, and recording, the movie theater, with its 500 seats, demonstrates the increasing recognition of American cinema as a major art form. If something more than presidential favorites are shown there, the film activity could be of tremendous importance.

September 8 is the night when the opera house opens with a work by Leonard Bernstein, commissioned by the JFK Center. The peripatetic composer/conductor will be in charge, along with choreographer/director Jerome Robbins. The piece has been described by Bernstein as a "kind of Mass—not a Requiem, but a Celebration—with underlying Latin text, with elements of blues and rock." Performances of the large-scale Bernstein opus will share opera-house dates with Alberto Ginastera's new opera, *Beatrix Cenci*. The Argentinian's work, like his *Bomarzo*, was commissioned by the Opera Society of Washington, and will be conducted by Julius Rudel on September 10, 12, and 13.

Rudel, who already heads the New York City Opera, Cincinnati May Festival, Caramoor Festival, and is programming consultant for the Wolf Trap Farm Park for the Performing Arts (about twenty-five minutes from the White House), is music director for the JFK Center, serving with the
man-on-the-spot, artistic administrator George London.

In addition to conducting the world premiere of the Ginastera, Rudel is producing for the center itself a fully staged presentation of Handel’s rarely performed opera Ariodante, which will be given on September 14 and 16 with a cast headed by Beverly Sills and Shirley Verrett.

The ubiquitous Rudel also expects his City Opera to be a frequent guest in the opera house, resulting in an obvious blur of identity on the part of the Opera Society, which would clearly prefer being the major as well as the “resident” ensemble. With a suitable stage available for the first time, the Washington Opera should be able to secure the financing and audience which its acknowledged artistic excellence has long warranted.

The American Ballet Theater is the “official company” of the center, and will present two gala performances on September 11 and 15. The company’s international stars include Carla Fracci, Natalya Makarova, and the incomparable Erik Bruhn.

The fact that ABT was given the “official” title, and has always been the special darling of the National Endowment for the Arts, means that it will present three two-week seasons each year in the opera house, while Frederick Franklin’s nine-year old National Ballet will be an outside guest when it uses the facilities.

As Washington Post writer Jean Battey Lewis put it, “The difference that the Kennedy Center’s beautiful sweep of clean, soaring stage space is going to make for dance is difficult to overestimate.” The National Ballet will present five weeks in the opera house, with Dame Margot Fonteyn among the guests.

In addition to the opera-house activities (which will include Bernstein’s revised Candide and other musicals later), the concert hall will be dedicated on September 9 and 10, with Dorati leading the National Symphony in its new home for the first time.

When Isaac Stern, Eugene Istomin, and Leonard Rose join in one of their stellar trio performances on the 11th, they will be the first solo performers to officially become Founding Artists. In seeking to encourage and honor the entire spectrum of performing arts as inexpensively as possible, it was decided to inscribe as Founding Artists those musicians donating services for the dedicatory events. Starting with Bernstein, Rudel, and the Stern/Istomin/Rose Trio, the names include Nicolai Gedda, Blood, Sweat and Tears, Peggy Lee, André Watts, the New York Pro Musica, and Count Basie —to list only those appearing during the festival period. Other Founding Artists will come later, and include Marlene Dietrich, Joan Sutherland, Richard Tucker, Van Cliburn, Birgit Nilsson, Rudolf Serkin, Leopold Stokowski, and the Chicago Transit Authority. André Watts gets enshrined for donating his services for a September 19 concert with Pierre Boulez and the New York Philharmonic, who, being paid, are not similarly honored. And so the quest for immortality stops at the bill-paying middle class.

For all the glamour of the shining new facilities and glittering, personality-crammed opening weeks, the importance of the John F. Kennedy Center for the Performing Arts lies not in buildings and local events, appropriate as they may be for the capital of the world’s greatest power.

What is important to Manhattan (New York and Kansas varieties), the Golden Gate, Big D, the Windy City, and points minuscule from Vermont to Idaho, is how the center plays its role as a cultural catalyst for the nation as a whole. What about any educational programs that might justify the center’s “charge” to serve all the people, to provide a national showcase, and to develop new audiences for the arts? These aspects, after all, are what will turn a marble monument into a living memorial worthy of the man whose vision included an America “which commands respect throughout the world not only for its strength but for its civilization as well.” I was surprised to learn from Julius Rudel that in addition to his obvious enthusiasm for new facilities and opportunities to produce his special brand of opera and concerts, he envisioned a major

Walter E. Washington, Mayor of Washington, D.C.; William McC. Blair, Jr., General Director of the Center; Julius Rudel, Music Director, and George London, Artistic Administrator, shown witnessing the topping-out ceremony, September 1968.
music conservatory in conjunction with the JFK Center.

"Why not have an arts academy to which qualified students are recommended much as young men are for the various military academies?" he proposed over a scarcely touched lunch. (Rudel is not the man with whom to have a leisurely chat. Our various conversations were invariably squeezed in between trips in and out of Washington or New York, and between breaks in the usual crisis-plagued world of the City Opera.) "With every state involved in the selection," the dynamic musician went on, "education—even education for the arts—would be a high priority thing instead of just a frill!" Students and stars would benefit mutually from such an arrangement, Rudel insists.

Again, with the insistence on nation-wide participation, and the encouragement of mutual exchange programs between Washington and elsewhere, Rudel was reiterating the Kennedy Center staff theme: Washington must be a generative force for new activities throughout the country as well as the first showcase for the best the nation has to offer.

While Rudel admits his National Conservatory (already chartered by Congress in the 1890s when Antonin Dvořák was expected to become its head) is "at least five years away," the JFK staff has not been idle.

During the nebulous years when the primary activities were funding and construction, Stevens and London had already got their people busy generating educational programs. In at least two areas—the American College Theater Festival and the related American College Jazz Festival—the two-way relationship between Washington and the nation's schools has already borne impressive results.

Through a series of regional drama festivals and jazz events, many of the country's finest collegiate drama companies and musical ensembles have been brought to national audiences, and thousands have been involved in a vital interchange of ideas and experiences. Handsomely restored Ford's Theater was the setting for a portion of this year's American College Theater Festival; the performance I witnessed of George Buchner's Woyzeck, by the University of North Carolina was strikingly effective and enlivened by a postperformance discussion.

The national finals of the College Jazz Festival were held in May at the Krannert Center at the University of Illinois in Urbana. While the national festivals will be held in the new JFK facilities next year, the regional events will continue to spread the activities throughout the country.

At a time when funds for any worthy activity are difficult to come by, George London noted that the sum of $300,000 provided by a powerful AAA—American Airlines, American Express, and American Oil—to underwrite the drama and jazz projects was the "largest and most comprehensive involvement in the performing arts ever undertaken on the college campuses of our nation by American business."

Such large-scale events can be tackled only with appropriate national sponsorship, and Washington is the logical center for such programs.

Education, tapping what Julius Rudel describes as the "fantastic reservoir" of American talent, and generally encouraging local arts throughout the country, will obviously provide the ultimate justification for the people's involvement, via the Federal government, in the Kennedy Center.

The first severe political tests will probably come when some shocking social comment is expounded during a performance, or the first break is made with the sort of safe, Establishment artists dominating the opening season—or when the first nude dancer makes an entrance onto the opera-house stage. Then will come the understanding that the arts require a climate of freedom as well as financial support and handsome facilities.

When dedicating a library at Amherst College in 1963, President Kennedy remarked, "I see little of more importance to the future of our country and our civilization than full recognition of the place of the artist. If art is to nourish the roots of our culture, society must set the artist free to follow his vision wherever it takes him.... Art is not a form of propaganda, it is a form of truth. Art establishes the basic human truths which must serve as the touchstones of our judgment."

More than the building, the programs of the John F. Kennedy Center for the Performing Arts can honor the man by helping to make his dream of the arts for the American people come true a little more than they might had he never lived and never been so honored.
It doesn't merely make a signal louder.

Many aspects of sound reproduction are easily explained, and some require no explanation at all. This accessibility, however, often is deceptive and especially so for amplifier power—the key criterion by which amplifiers are compared to one another.

The most sensible way to approach the concept of amplifier power is to begin with the question, "What is an amplifier?" The answer will bring to light more than a definition of power; for in formulating an answer we must also consider the way in which power is delivered to speaker systems and how these systems use it. For openers, let's abandon old definitions that confuse, rather than illuminate, the subject.

What Is an Amplifier?

One common definition—even, perhaps, the most widely quoted of all—is incorrect: "An amplifier is a device that takes the signal from the cartridge and strengthens it until it has enough power to operate the loudspeaker and produce sound." We might just as well define an automobile as "a device that takes the movements of the accelerator pedal and strengthens them until they have enough power to turn the wheels." What makes such a definition sound silly is our knowledge that the accelerator is connected to a mechanical linkage ending in a valve held by a small spring. Obviously the spring cannot possibly turn the wheels; it is the engine that does so. The movement of the throttle valve is really a control signal. When we push the valve open we allow the engine to deliver its power to the wheels, and when we let the spring push the pedal back we shut off this power. We are really supplying the engine with information. The engine in turn is supplying energy, which does not come from the foot on the pedal but from the engine's own store of chemical potential energy—the fuel tank. The speed of the car is a rough measure of the rate at which the energy is being delivered, and it is this rate that, in the lexicon of physics, we call "power."

In an amplifier the applied control signal needs to do little or no work. In fact the less work done by the input signal the better. It is easier to design good pickup cartridges and tape heads, for example, if these transducers are only required to "read" the recording, rather than to move physical mass or create heat at the same time. The most important property of an amplifier is its ability to deliver the required power (its "fuel tank" is its power supply) exactly corresponding to the control signal applied.

Mr. Berkovitz, formerly an executive of Acoustic Research, is now with Dolby Laboratories in England.
to its input, so that the information in both the input and output signals is the same.

This correspondence is assured automatically in all high fidelity amplifiers by a type of circuit that is the cornerstone of the science of cybernetics: the feedback loop. The loop brings the information pattern of the output of the amplifier back to the input, but altered in a very important way: its phase is inverted, so that whenever the input signal becomes more positive in voltage, the feedback loop becomes more negative. When the signal in the feedback loop is combined electrically with a duplicate of the input signal, the result should then be perfect cancellation, because the feedback signal is an exact mirror image of the input signal. And it could be but for one fact: the output of the amplifier is not a perfect replica of the input because no amplifier is perfect. These imperfections are left over when the signals cancel, and they act as a new control signal. Since this error signal is now of opposite polarity with respect to the errors in the output signal, the feedback cancels them out. In the best amplifiers, this cancellation technique is remarkably effective so that the net imperfection (distortion) is less the product of circuit design deficiencies, and more the result of the inevitable imperfections of the circuit elements used, or the manner in which they have been assembled.

Where Feedback Cannot Help

If what the amplifier receives at its input is to be defined as information, where does the power come from? From the electrical wall outlet, of course. This AC power is used to keep the amplifier's own power reservoir—usually one or more large capacitors—charged sufficiently to provide as much energy as is needed. If the electric power from the wall outlet were direct current to begin with, the reservoirs would not be needed; but alternating current has its own built-in "signal" as it comes from the wall. It swings from maximum positive voltage to maximum negative voltage and back again sixty times each second—fine for the electric company's purposes, but useless to an audio amplifier, at least in that form. Therefore the alternating current from the wall is passed through circuitry—known as rectifiers and filters—changing it to DC so it can charge the "reservoir" capacitors, which are connected more or less directly to the loudspeaker through the power transistors in the final stage of the amplifier. Acting on the information originally supplied at the input to the amplifier, these output transistors open and shut like valves to allow current to flow to the loudspeaker.

There are several circumstances of great importance to the music listener that prevent this nice process from taking place according to plan, however. To repeat, power is the rate at which energy is passed from the amplifier to the load. Normally it is proportional to the square of the value of the input signal in volts. But normality implies a perfection rarely found in the real world—including amplifiers.

If the input signal calls for more power than the amplifier is able to deliver, the amplifier simply does not respond proportionately. There are several ways in which this can happen. The most obvious occurs when energy is drained from the amplifier so heavily that the power supply runs dry, electronically speaking. An analogy will make this clear.

Imagine a village served by a pumping station that supplies water in periodic spurts. Clearly, the differing needs of the gardener, the housewife, the man taking a shower, and the village firemen could not be met satisfactorily by such a pumping system. A practical solution might be the installation of a
reservoir in each location—a tank that would be filled continuously by the spurs of water from the central station and drained for use through a valve to which the user could connect his hose. Everyone could then have just the water pressure he needs—and in a steady flow. But this kind of system could break down in just the same way as an amplifier, so the analogy is worth closer study.

First, consider the matter of draining the supply by heavy power demand. It is easy to see that the nature of the reservoir itself can limit the amount of continuously available water. For one thing, if the pipe from the pumping station is too small, replenishment of the reservoir will be too slow. This is roughly analogous to the use of an undersize power transformer in an amplifier, thereby restricting the transfer of current from the pulsating source (the wall outlet to the reservoir (the capacitors in the power supply). Then too these capacitors may literally lack adequate capacity and so will become “empty” when too much power is drawn through the output transistors. This condition leaves available only the pulsating supply current, and its intermittently delivered energy will create hum.

The load on the amplifier—that is, the loudspeaker—has an impedance that changes with frequency, sometimes as a result of the characteristics of the speaker itself, sometimes as a result of the way in which the crossover network is designed. This corresponds to a leak in the hose that is evident, let’s say, only when the nozzle is pointed in a certain direction. The sudden increase in power drain when the signal moves into the frequency range where impedance is lowest can quite overcome an amplifier, as anyone who owned one of the first transistor amplifiers and used it with an electrostatic speaker can tell you. Such loudspeakers have a characteristically low impedance at low frequencies; merely rubbing the stylus of the pickup cartridge with one’s finger resulted in catastrophic failure of output transistors.

The same kind of power drain occurs, of course, with the addition of extension speakers in parallel to an existing amplifier, except that today’s improved transistor amplifiers will merely blow fuses or trip circuit breakers rather than self-destruct under such conditions. The newest of high-power amplifier designs incorporate special protective circuits that allow overload signals to pass through without interrupting operation at all: current limiting or clipping, while usually inaudible, protects the amplifier effectively.

### Little Transistors, Big Amplifiers

In the early days of transistor high fidelity equipment, many enthusiasts envisioned a revolution in the size of high-powered amplifiers. Two power transistors took up no more space than a pair of overcoat buttons, as opposed to the massive glass tubes they replaced; obviously we could look forward to an unprecedented compactness in the design of new equipment. What these prophets were forgetting—or perhaps had not yet learned—was that transistors, while efficient and small, built up enormous temperatures within their tiny cases even when operated at low power levels unless provided with some means of removing heat. Otherwise the transistor’s junction would melt, disabling the amplifier. The heat produced in a transistor is a function of the current through it; so the more powerful the amplifier, the larger the heat sinks needed to dissipate the heat and save the transistors.

The feedback circuits described earlier are as much a feature of transistor amplifiers as they were of the best tube designs. Feedback assures that when a given output voltage is called for by the input signal, that voltage will be maintained accurately regardless of changes in the behavior of the speaker system. As most of us learned in high school, a man called Ohm gave his name to a very important basic electrical relationship: the current (I) through a load or resistance (R) is calculated by dividing the voltage (E) across the load by its resistance (I = E/R). Suppose that an amplifier is delivering ten volts but that no speaker system is connected to it. If it is a good amplifier it will do its best to continue delivering ten volts no matter what we do to its output terminals, and by examining the amplifier’s innards we can confirm somewhat tediously what Ohm was trying to tell us: ten volts divided by infinity (no current flows through the air separating the speaker terminals, so we can say that the resistance is infinite) equals zero, and so no current is being drawn through the output transistors and no power is being drained from the power supply. This is why transistor amplifiers are not usually hurt by removing the speakers; they simply have no work to do. (This was not true of vacuum-tube power amplifiers, nor is it true of those few transistor amplifiers that use matching or output transformers. These circuits need to be loaded by a speaker system or load resistor at all times for safety.)

Now let’s connect an 8-ohm resistor to the amplifier output terminals. What is the current through the resistor? Applying Ohm’s Law (10 volts divided by 8 ohms) we get 1.25 amperes; and this current must flow to the output terminals through the output transistors. To calculate the power in this example, we can use the simplified formula, power equals voltage times current. It is therefore 10 x 1.25 or 12.5 watts. Now let’s reduce the load to 4 ohms. The current goes up to 2.5 amps, the power to 25 watts! Remember, we have not touched the amplifier, just the value of the load connected to its output. Here is the most interesting part of all: if we want to deliver 25 watts to the 8-ohm load, how much current will be going through the output
transistors? The answer, surprisingly, is 1.77 amps at 14.14 volts—a full 30% less than when the same amount of power is being delivered to a 4-ohm load. Since current through (and heat in) the transistors limits their ability to handle power—at least in many cases—it is necessary to set a limit on the power available to a 4-ohm load from the amplifier. Many manufacturers specify, in fact, that less power is available to 4-ohm loudspeakers than to 8-ohm units because output transistor current, rather than power supply design, determines the limit.

Since doubling up similar speakers in parallel will cut the load impedance or resistance in half, the speaker hookup may seriously compromise the fidelity of the system unless matching transformers or other techniques are used to prevent excess current drain from the amplifier. For example, take an amplifier rated for 100 watts at 8 ohms, and for 60 watts with 4-ohm loads. Adding 8-ohm extension speakers in parallel with existing 8-ohm main speakers will divide the available power in half (half to the main systems and half to the extension), and it also will reduce the total power the amplifier can deliver from 100 to 60 watts (by reducing the effective load from 8 ohms to 4 ohms because two 8-ohm loads in parallel act as a single 4-ohm load). On the other hand, if two 4-ohm speaker systems are used in series in each channel of such a system, the total available power may be greater than it would be for the 4-ohm main speakers because series impedances add—in this case, they would total 8 ohms per channel. The general rule to follow when hooking up extension speakers is to keep the impedance of the combination as close as possible to that for which the amplifier has its highest power rating. The exact method of wiring such a combination can be worked out by consulting the section on series and parallel resistances in any elementary book on electricity or electronics; while simple in substance, it is too lengthy a subject to repeat here.

What Kind of Power is Best?

Stereo owners frequently ask how much power (in watts) is needed for adequate listening. To answer this question we must raise another: what kind of watts?

First, how much power? Experiments using typical acoustic-suspension bookshelf systems, for example, indicate that duplicating chamber music at its original sound level requires no less than a 120-watt system: that is, 60 watts per channel. In principle, the reproduction of an orchestra at its true sound level would require at least several kilowatts. Fortunately, we need not reproduce the source in our homes—only the sound level we might expect to hear at a live concert. That level is comparatively low, as concertgoers learn to their annoyance when there are noisy whispers during a performance. To achieve even relatively high concert levels in a typical living room may require no more than 15 or 20 watts per channel, if reasonably efficient systems are used. And the sound is aided by the much smaller volume of the living room by comparison to the concert hall: the small space requires proportionately less power to fill it.

An interesting experiment, first suggested by
G. A. Briggs of Wharfedale, can be used to calibrate one's ears in terms of relative sound levels. The next time you go to a concert, hold a dollar bill a few inches from one ear and rub it between two fingers lightly pressed against the bill, observing its loudness with respect to the music; then do the same at home while playing back a recording of the same music. Most listeners probably will find that they tend to listen at unnaturally high levels when playing back orchestral music. Perhaps some reader has an explanation for this psychoacoustic peculiarity.

The power output figures mentioned above are continuous power ratings, and they denote the actual rate at which energy can be transferred from amplifier to load on a continuous basis—for a millisecond or an hour. Some years ago it was suggested that amplifiers with skimpy power supplies might, in fact, be better than their relatively low continuous-power ratings suggested. The reasoning went something like this: music consists of short, unpredictable bursts of sound, each lasting for only a small fraction of a second; therefore amplifier power supplies are never really called upon to deliver continuous power during music reproduction but need only satisfy these brief power demands, between which the power supply will have adequate time to replenish itself. The doctrine was as appealing to advertising and sales personnel as it was disgusting to engineers, and although the basic hypothesis was never substantiated it quickly was embraced by many companies and later officially sanctioned and entitled “music power” by the Institute of High Fidelity.

You should understand clearly that, despite the existence of “tests” to determine the so-called music power of an amplifier, it never has been demonstrated that such capability exists in other than a theoretical sense. If high-level musical sounds “do not last long,” how long do they last—that is, how long must the amplifier be expected to continue producing full power? Music-power testing procedures never have answered this question, so music that can produce sustained high-level passages—organ music, choral music, symphonic music, and the live-level playback of chamber music for example (to say nothing of rock)—simply is not taken into account.

Nor does the music-power testing procedure determine how long the amplifier actually will continue to produce full power. Theoretically the official method involves application of input signal and measurement of power output instantaneously—before the power supply has had time to become depleted. In practice, however, the amplifier’s own power supply is simply disconnected and an external power supply substituted. Since the stand-in power supply can be as big as a house, it need never run short of power; and the manufacturer may be tempted to carry the measurement well beyond the rather generous margin for exaggeration that already is built into it. In principle an amplifier capable of delivering no more than one watt on a continuous basis might be rated at 100 watts music power as long as the output transistors did not fail during the test. The test can therefore be considered more a measure of the manufacturer’s ingenuity in applying it than an index of his product’s capabilities. High Fidelity and most other publications in the field do not even bother to measure amplifiers this way, since the results are meaningless, and I don’t know of a single item of professional audio equipment that is given a music-power rating. If there were, it is not likely that any responsible engineer would requisition such apparatus for his recording studio or development laboratory. But if music power is a joke among engineers, there is a rating that is even funnier: peak power, a figure obtained by multiplying the normal power rating by

Continued on page 73
To each his own.

Not everybody needs a concert grand piano, nor does everybody need the best cartridge Shure makes to enjoy his kind of music on his kind of hi-fi system. Eventually, you'll want the renowned V-15 Type II Improved, the peerless cartridge for advanced systems and ample budgets. But, if your exchequer is a little tight, consider the M91E, widely acclaimed as the second best cartridge in the world. With a sharply circumscribed budget, all is far from lost. Choose any of the four models in the M44 Series, built for optimum performance in the easy-to-take $18-25 price range. Write for a complete catalog:

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On the next eight pages you will see the most advanced engineering in turntable design for 1972.
Every record you buy is one more reason to own a Dual.
The 1218: It will probably become the most popular turntable Dual has ever made.

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

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

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

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

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

How to protect your investment.

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

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

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How Dual does it.

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

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

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

The professionals' choice.

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

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

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

Which Dual for you?

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

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

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

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

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

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

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

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

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

1219 tonearm is 8⅜" from pivot to stylus, virtually eliminating tracking error while maintaining one-piece stability. 1218 tonearm is only ½" shorter.

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

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

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

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

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

Like all Duals, the 1215 also provides a pitch-control that lets you match the pitch of recorded music to live musical instruments or compensate for off-pitch records. $99.50.

United Audio Products, Inc., 120 So. Columbus Ave., Mt. Vernon, N.Y. 10553
And on the next page: another new Dual, for those who want total convenience along with Dual precision.
This new Dual integrated module comes just as you see it:
with base, dust cover and cartridge.

But that's not why you should buy it.

We can give you many reasons for buying the new Dual CS 16. The least important is the convenience of its being complete with base, dust cover and Shure magnetic cartridge. And with all tonearm settings for this cartridge — balance, tracking pressure and anti-skating — set at the factory for optimum performance.

A much better reason is that the CS 16 is a Dual, with many of the precision features that have long made Dual first choice of hi-fi experts. For example: Dynamically-balanced low-mass tonearm that tracks flawlessly at as low as 0.75 gram. Constant-speed, hi-torque motor. Pitch-control to compensate for off-pitch records. Silicone-damped feathertouch cue-control. 'Elevator action' changer spindle.

When you think of your investment in records — which may be hundreds or even thousands of dollars — we think you'll agree that the component that handles those records should do so with the utmost care and precision.

Now you know the most important reason of all for buying the Dual CS 16. There is still one more, however. Its modest price: $119.00.

two. Thus, a manufacturer who advertises "200 watts music power" can, with a stroke of his pen, convert the circuit to "400 watts peak music power." It does happen.

Enter, the FTC

Amplifier power measurements moved from the abstract and theoretical to the specific and practical recently when the Federal Trade Commission, apparently in response to consumer complaints about power advertising, asked industry technicians to meet informally and consider ways in which some degree of order and reason might be brought to the many contending claims of manufacturers. The Commission's suggested rules produced predictable reactions from trade groups—complaints about the dangers of "government interference" and the suggestion that the matter of ratings was best left to professionals in the measurement-standards-invention business. All of the magazines in the high fidelity field supported strict continuous-power measurements, as did a few manufacturers; undoubtedly other manufacturers who are not members of IHF and EIA (Electronics Industries Association) would have been present had they known of the meeting. At this writing there has been no FTC action, nor any sign of organized, industry-wide reform. Well-known manufacturers of high-quality amplifiers still tend to stick to continuous-power ratings; manufacturers of low-power equipment are more likely to quote music-power numbers. A common compromise practice chooses some variant of the music-power figure in the headlines, saving the qualifiers and continuous-power ratings for the fine print.

The crucial question of course is whether—given any type of music that the listener is likely to choose—the power rating quoted by the manufacturer will be applicable. If the rating is of continuous power (also called sine wave, average, or rms power—though this last term is technically a solecism), the answer is an unqualified yes. Whatever kind of music is fed to it, the amplifier can produce the rated power level. Music-power ratings and their derivatives, on the other hand, must always be quoted with the secret reservation, "... but not with all music!"

Is Unlimited Power Desirable?

As it happens, amplifiers can be made arbitrarily powerful when cost is no object; you can buy units capable of delivering hundreds of watts per channel. Why should anyone need so much power? The answer is that certain speaker systems demand high power because of their use of equalization, just as amplifiers may be required to deliver very high power output if treble and bass controls are boosted liberally.

An equalizer of the type used with the Bose 901 speaker system, for example, can boost bass response by a factor of about 100 at 40 Hz. Therefore, if the volume control on the preamplifier is set to play at a level requiring 1 watt at mid-frequencies, the 40-Hz component of a drumbeat no louder than the midrange signal on the original recording can push (or try to push) about 100 watts out of the amplifier. Separate equalizers, such as those made by Altec and Advent, may make similar demands on the amplifier, if boosts are introduced to the same extent.

This may be a good place at which to restate the point that loudspeaker efficiency as such has no relevance to fidelity, nor does lack of efficiency imply superiority. It is likely, however, that future speaker system designs will tend more toward relatively low efficiency because power is cheap and there are space-saving advantages to be gained by its free use. Relationships between efficiency, bass response, and cabinet size could tempt designers to try for even deeper bass in even smaller enclosures than those with which we are familiar, but at the expense of efficiency. If this course is followed, other problems will have to be solved as well—particularly the dissipation of the heat produced when so much of the energy poured into a speaker system is not converted to sound.

What is the likelihood that extrapowerful amplifiers might soon become available without greatly increased cost to the consumer? The type of output transistor used in most of today's high fidelity power amplifiers (the 2N3055 family) limits simple circuits to outputs of about 60 watts of continuous power per channel across the audio band, although amplifiers that are marginally more powerful are available with similar distortion specifications. In view of the effort expended during the last five years by semiconductor manufacturers trying to produce a supertransistor for power amplifiers, and taking into account that such efforts have borne little fruit to date, it would appear that a major step forward in basic technology will be needed before amplifiers change in any drastic way.

Circuit developments also promise little at this point, although a few years ago there was considerable excitement about exotic circuits—pulse width modulation amplifiers, Class D circuits, and other mysterious-sounding configurations. A more immediate need, in my opinion, is for recordings that truly match the performance capabilities of the amplifiers we already have. Possibly some future revolution in playback media will use the capability of the modern amplifier fully—or even force the development of still better amplifiers.
ON APRIL 26, 1971, the New York Times made an impassioned plea on its editorial page. Under the title, “Let WNYC Live,” it said:

It is hard to imagine New York City without WNYC. The municipal radio station has been broadcasting since 1924; it is one of the least of the city’s frills. With an operating cost annually of $500,000, WNYC-AM and FM brings news of the city and hearings of its agencies, sessions of the United Nations and reviews of the world press, Shakespeare’s plays and Gilbert and Sullivan operettas and, most important, a daily aural feast of classical music. If the city’s station were silenced altogether, there would be a giant hole in the air.

A touching gesture, but the Times did not extend its sympathy to another New York City station in much the same circumstances, WQXR-AM and FM, a mere dozen years younger than WNYC, with a yearly business loss equal to the municipal station’s operating cost. They too bring news of the city, the state, and the nation as gathered and edited by the Times’s own superlative newsroom, and they too offer a daily aural feast of classical music. But the Times cannot ask anyone to “Let WQXR Live” since the stations are wholly-owned subsidiaries of the Times itself—and although the paper does not seem to mind suggesting that the debt-ridden city take on an additional burden in the name of Culture, it has been loath to follow its own advice: on April 5, three weeks before the editorial, the trade magazine Broadcasting leaked the news that the Times was considering the sale of one or both stations. Shortly thereafter, Walter Neiman, WQXR’s general manager, spelled it out for his staff: the Times would try to get at least $8 million for the pair; something less than that for the AM or FM alone—a bargain as stations go; WINS and WMGM, AM-only services, previously had gone for roughly $10.5 million each. If no one came forward with at least an $8 million offer, the Times would continue to broadcast or, if things got too bad, shut down.

Whatever one might think of WQXR today, there is no question but that the station was a pioneer in classical music broadcasting, and a vital force for many years. How had it come to this sorry point?*

WQXR’s early history is fascinating. The founding father was John Vincent Lawless Hogan, a near-genius in electronics who cut his teeth as an assistant to the quixotic Lee de Forest between 1906 and 1907. Hogan knocked around the infant broadcasting industry for the next twenty years and earned one mighty claim to fame: he invented the single-dial tuning system for radio receivers.

In 1926 Hogan, along with a few others, began experimenting with television. The phosphor-coated electron tube had not been invented as yet, so Hogan used the Nipkow disc—a spinning disc punctured with holes in a spiral pattern which mechanically scanned a signal-modulated neon bulb. Seated in front of this Rube Goldberg contraption, viewers could watch an orange, inch-high Felix the Cat and similar cultural wonders. The government licensed Hogan as an experimental “visual broadcaster”—video at a number of frequencies (he preferred 2012 kHz), audio at 1550 kHz, just 10 kHz below the present AM setting. The assigned call letters were W2XR. When Hogan wasn’t broadcasting Felix soundtracks, he left the audio on and gave whoever happened to be listening a generous measure of his favorite music—the classical standards. W2XR wasn’t easy to get: most AM tuning dials stopped at 1500 kHz, and not many set owners

* I’d come to my own sorry point just two weeks before the Broadcasting episode when WQXR’s management told me that after sixteen years, half of them as continuity editor, my services no longer would be required (five employees were laid off that day; our total tenure came to just under three-quarters of a century). I returned to WQXR’s offices on the Monday after my last Friday and began a week-long series of interviews. These expanded eventually to include outside agencies that deal with WQXR, and this article is a distillation of many facts, thoughts, opinions, complaints, and quite a bit of useless griping. I expected variety and dissension and I got it, but the number of points on which nearly everyone agreed surprised me.
could squeeze up to 1550. Still, Hogan received a great deal more mail from enthusiastic listeners than from the few experimenters who were able to watch his video signal, and when Vladimir Zworykin doomed Nipkow television in the mid-Thirties, with his new, completely electronic iconoscope, the basis of all present picture transmission, Hogan's thoughts turned to those listeners. He requested FCC permission to establish a wide-band AM channel near his old frequency; when the license—for a double-width channel that went up to 15,000 Hz!—was granted in 1934, New York City had its first high-fidelity, classical music station. (When the AM band eventually became too crowded, WQXR's bandwidth was reduced to the normal 7,500 Hz.)

The station attracted the attention of Elliott M. Sanger, a graduate of the Columbia School of Journalism who had drifted into advertising. Temperamentally, the two men were worlds apart: Hogan, an easy-going experimenter who liked to work with his hands; Sanger, a hard-headed, ambitious businessman. They did share a love of good music, however, and Sanger was able to convince Hogan that W2XR might be viable as a commercial enterprise. They incorporated in 1936, changed the "2" to a "Q", and very quickly attracted a small but intensely loyal audience of upper- and upper-middle-class music lovers. These were to be the hard core of the station's support—financially comfortable dilettantes of whom an executive wit once said, "They like Beethoven's Fifth and Tchaikovsky's Fifth, but they can't quite tell you which is which."

The station format and its audience attracted an equally small but appropriate nucleus of advertisers—corporate, institutional, restaurants, brokerage houses, investment firms, and two very long-term "fringe" customers, the Ritz Thrift Shop (second-hand furs) for people on the way up, and the Empire Diamond and Gold Buying Service for people on the way down.

Hogan found WQXR as a business not to his liking. He left it to Sanger, and moved back to pure electronics. After wartime work on radar, guided missiles, and the proximity fuse, he dabbled in facsimile transmission, then retired to his home in Forest Hills, New York, where he died in 1960, a few months short of his 71st birthday.

Until its incorporation in 1936 as the Interstate Broadcasting Company, WQXR—a 250-watt transmitter and all—was located over a commercial garage in Long Island City. After incorporation, a new 1,000-watt transmitter was built in Maspeth (now a "suburb" of Long Island City), and the offices and studios were moved to 730 Fifth Avenue at 57th Street, across from Tiffany's. Here, Sanger and a small staff struggled to turn out a respectable product and make ends meet. They did turn out a respectable product, but somehow there was always a gap between the ends. The struggle went on for eight years till it was obliterated by an event of terrific impact—an event that was at once WQXR's salvation and doom: the stations (FM simulcasts began in 1939) were purchased by the New York Times.

Arthur Hays Sulzberger was the very model of a WQXR listener: he knew what he liked, even if he didn't know what it was, and he was vociferous about what he didn't like. As publisher of the Times he communicated his likes (few) and dislikes (many) on blue memo paper; these are still recalled with awe by the older Times staffers. And under the rather transparent pseudonym "A. Aitchess" he publicly vented his wrath in pungent Letters to the Editors.

AHS had married into the Times's founding Ochs (pronounced Oaks) family, but he bore himself with the imperious dignity of a full-blooded sovereign. He had been keeping a watchful ear on WQXR for some time, and his purchase was motivated for the noblest reasons: he believed that the best newspaper in the world should have the services of the best radio station. He appreciated WQXR's cultural leadership in the broadcasting field, and he recognized the promotional value of having it identified as "The Radio Station of the New York Times" every half hour. Furthermore, AHS was a true romantic—a crabby romantic, but a romantic. Who else would have uprooted the tree under which he'd proposed to his wife and replanted it on the family grounds as a wedding anniversary present? The man was a benevolent despot, and he made it clear that WQXR was his fair-haired child. The station's offices and studios were moved from Fifth Avenue to the Times's mighty castle on West 43rd Street, and although the corporate structures were always kept distinctly separate, AHS made it clear that he saw no difference between a worker on one side of a wall and a worker on the other. Understandably eager to share the castle goodies, WQXR's staff voted to be represented by the Times's white-collar union, the New York Newspaper Guild, and it received as a result equal pay and equal fringe benefits—life insurance, annuities, hospitalization, the works.

And something else happened. WQXR's executives began, in the words of one sardonic observer, to "play radio." Creeping Departmentalization, which had begun when Sulzberger first expressed his interest in the station, mushroomed, and each department was staffed to the teeth. There were half a dozen programmers and half a dozen writers; writers were not allowed to program and programmers were not allowed to write. In addition there was a Press and Promotion Department, a Traffic Department, a Program Guide Department complete with its own Varitype make-up crew, a Merchandising Department, a Sales Department, a Commercial Continuity Department, an Accounting Department, some one-man bands such
as a Director of New Business and a Co-ordinator of Educational Activities, the usual announcing and engineering forces, and an unusually large gaggle of secretaries and clerks. By the early Sixties, the total staff numbered close to one hundred people—and held there!

Some things did not change. Although Elliott Sanger lacked the Sun King demeanor of Arthur Hays Sulzberger, he was every bit as autocratic, and he was determined to preserve WQXR's musical levels and the refined advertising atmosphere in which they grew. He even managed to resist, by rolling with the punches, AHS's unaccountably virulent dislike of Haydn and Mozart (“Mozart—tinkle tinkle!” was the total content of one morning-after blue memo, but everybody understood the depth of feeling behind it). Sanger laid down rigid rules governing advertising acceptability, his most famous being a total ban on singing commercials. The Madison Avenue Goliaths bowed to the Times Square David, perhaps because Sanger's white-glove approach really did seem to point the way to a higher-quality audience. Companies went out of their way to prepare special nonsinging copy for use on WQXR, the most notable example being Pepsi-Cola. In place of the Pepsi Boys singing about the Sheik of Araby (“... into your tent I'll creep—with the big, big bottle...”), Pepsi presented WQXR with an almost neoclassic version of its standard number (“Pepsi-Cola hits the spot; twelve full ounces, that's a lot...”), tastefully recorded by a celeste. It was an incredible act of understanding and good will on the part of a national corporation, and it was a WQXR "standard" for years. No doubt its continued presence bolstered the station's position with other companies.

Meanwhile, WQXR continued to lose money, albeit gracefully. In good years the books hovered near the break-even point; in bad ones the losses were palpable but tolerable, and station executives could always say that the Times would have had to shell out much more than WQXR's deficit to purchase as much promotional air time. But always, in the end, the station's right to exist came from the fact that Arthur Hays Sulzberger liked it, and that was that. Given this master-and-concubine relationship, it is understandable that a minor panic erupted when, in 1961, Sulzberger, feeble and ailing, relinquished active control of the newspaper.

But life went on much as before. The upper echelons of the Times management were too busy bumping and jostling each other to pay really close attention to the station, and everything just coasted along. There were changes of personnel, some of them important, and a few impressive but abortive experiments such as the QXR Network, but basically WQXR was still the station Connecticut executives turned on for a genteel background at the cocktail hour. In the middle 1960s, however, there came a succession of events, most of which were so catastrophic that almost any one of them alone could, at first glance, be considered the fatal thrust: the New York Newspaper Guild organized WQXR's salesmen, the FCC decreed that AM and FM affiliates of the same radio station would have to program separately at least fifty per cent of the time, rock music became a craze, and a new corps of young, bright-eyed businessmen, headed by Arthur Hays's son, Arthur Ochs ("Punch") Sulzberger, took control of the Times.

The unionization of WQXR's salesmen was devastating. Suddenly every salesman was earning full pay in the top Guild category plus his sales commissions, which meant that as of June 1, 1969, most of them received a minimum of $16,000 per year before making a single sale! The utterly predictable
result, according to insiders, was that they loafed. Those who understand the sales mystique far better than I do are unanimous in their belief that a salesman has to fear hunger to be effective. Selling is a highly competitive business, and the Guild took the competition out of the game. With very few exceptions, I was told, WQXR salesmen won’t bother with anything less than big institutional deals—Symphony Hall to General Telephone and Electronics; First Hearing to Texas Gulf Sulphur, or spot positions to Pan Am; they wouldn’t be caught dead scratching up the little bread-and-butter accounts, and even the scrappy little sales trainee who once outsold everybody on the force has settled down now that he’s making it. The rule today, in the words of one embittered top executive, is long lunch hours and chatting in the halls.

As for the FCC decision, that will be a bone of contention for a long time to come. My own opinion, which is shared by many of those I talked to, is that what might be beneficial in a one-, two-, or three-station city is at best ineffective in a city with as many stations as New York, and at worst downright harmful. Splitting WQXR’s AM and FM facilities added little to New York’s already fantastic variety of radio fare, but the physical conversion and staff additions cost the station an arm and a leg, while the new formats confused loyal listeners and unnerved advertisers. After careful consideration of the many possibilities, WQXR—with a blaze of trumpets—decided to offer straight classical music on FM, and a veritable pink froth of light music on AM during the requisite fifty percent of its broadcast day. The concept proved so unacceptable to the public that it was abandoned in a matter of months. In its place WQXR offered its old heavy and light mix on FM, followed by delayed rebroadcast on AM a week later. The bleeding was stopped, but the wound never healed. WQXR-FM, which in 1966 had been, with 1.5 million listeners, according to the American Research Bureau, the number one FM station in New York City, began to slide.

The phenomenon of rock never could have been predicted, and certainly WQXR is not alone in the tumbrel. Classical record sales are slipping, concert and opera seats go begging, and classical broadcasting is in trouble: in New York City, WQXR is up for sale, WNYC has cut its staff in half, WRVR this month abandons its classical music format, and the major networks have abandoned serious music. Only WNCN is thriving: we’ll see why later. Without a doubt the current economic slump has accelerated the degenerating process, but it was unquestionably under way before the market began its descent.

All of these factors primed the gun: the trigger was cocked when Punch Sulzberger and his new, computerized administration eradicated the last traces of AHS’s visceral autocracy. Under Punch, the Times’s dispersal of its energies and finances are determined by a brain trust specially hired for the purpose. The collective, unlike AHS, has no emotional attachment to WQXR—emotion would pollute its effectiveness in raising productivity and lowering costs. With the paper’s net profits for the first quarter of 1971 approximately half of what they’d been for the first quarter of 1970, the Times could see WQXR in only one way—as $8 million that could, if invested, earn ten percent a year instead of losing six. And when the FCC suddenly proposed that no newspaper should own a second medium in the same market, the firing pin slammed home. Already burdened with several expensive purchases from Cowles Communications, the Times opted to get out from under WQXR as quickly as possible. It is conceivable that had the station shown the ability to sustain even a modest profit, the Times would have fought the FCC through the courts, but nothing in the picture gave the Times administration the slightest incentive to do so.

This, then, is where WQXR stands at thirty-five—the age at which, the Serutan people tell us, things begin to come apart at the seams. Since the first alarms of the 1960s, WQXR’s management has been trying to recapture audience and advertisers, but its efforts have been severely hampered by a lack of informational feedback. WQXR has no way of really knowing what sort of people are listening, how many of them there are, or what they want or don’t want. The surveys of Pulse and the American Research Bureau are horrendously complicated, often ambiguous, and so contrived as to be open to a wide variety of interpretations—which may be the
In better times—the WQXR String Quartet (Harry Glickman, Hugo Fiorato, Harvey Shapiro, and Jack Braunstein).

whole idea. The whole survey business was scrutinized by the Federal Trade Commission some time ago, with the result that every report carries a statement disclaiming accuracy in just about every area the very same report covers. For WQXR, the problem is even more complex, for the likelihood of an interviewer intercepting a WQXR household is rather remote. Surveys in metropolitan areas must, of necessity, channel into low- and middle-income housing; the interviewers are normally blocked from the guarded luxury apartments and the Connecticut estates where WQXR has always claimed that its listeners dwell. If all this is true, media surveys are badly distorted, and WQXR is being penalized unfairly.

Penalized by whom? Enter the media buyer—a small but crucial cog in the advertising machine. Media buyers perch on the lowest rung of the agency ladder; they are usually young and green—probably fresh out of college. When a company tells its agency it has X dollars to spend on advertising, and the basic decision is made that part of those dollars will go into broadcast advertising (as opposed to print advertising), the media buyer runs to his survey chart. He distributes the company’s dollars proportionately among the front-runners, and that’s that. The fact that the poll may be inaccurate is far beyond the horizon of his responsibility, as is the fact that it can only measure quantity of audience, not quality. He is, after all, a fledgling—a trainee with no tenure or status, and he is not being paid to be imaginative or adventurous. Nobody will fault him for sticking to the book. As a result, many specialized companies with thoroughbred customers may actually lose, because the media buyers are putting their money where lots of potential customers are—but not that company’s potential customers.

Over the years, WQXR has struggled gallantly against these odds, trying to discover for itself what the people “out there” really want. It has its own panel of four thousand listener-respondents which it polls regularly, but this only gives it the views of its withering population of old-timers, and in the face of the mid-Sixties’ youth revolution, management feels that survival depends on its ability to attract at least a portion of this vital new generation. Robert Sherman, WQXR’s aggressive young program director, took the bull by the horns one day and went right out into the high schools. He asked questions and got answers, some of them eye-opening. One girl had nothing against WQXR, but she compared it to her mother’s friends: “I like them, I say hello to them when I walk in the house, but
they have nothing to do with my life.” From these talks was born the award-winning hit *Woody’s Children*, a fifty-minute program of contemporary folksong, hosted by Sherman himself.

There have been other suggestions: classical on FM, news on AM; classical on AM, light on FM; classical on both, one reinforcing the other; classical on FM, sell the AM. The trouble is, nobody knows, or can even confidently guess, what will work. One thing that has worked is cutting staff. The late-Fifties, early-Sixties roster of about 100 was more than double the staff of the next most elaborate and complicated classical music station. When all those terrible things happened in the mid-Sixties, management did something it had never done before—it lopped away big chunks of personnel fat and began to show a profit. The books stayed black till the next round of contract negotiations, which is not surprising inasmuch as the contracts were whoppers and the station was still grossly overstaffed. The second round of heavy personnel cuts—the one that caught me—came last April. Counting retirements, the staff is now down to forty-nine, which is still too big, but if the economy gives any sign of a real revival, WQXR could find itself making a profit again.

If it all sounds like petty bookkeeping, consider this: nonclassical WRFM, which has the highest sales billing among New York City’s FM stations, operates with a staff of twenty-five; WFMT in Chicago, considered by many to be the finest classical music station in the country, makes it with twenty-one; and KFAC, Los Angeles, a 24-hour-a-day AM-FM station with totally separate programming, gets along with thirty-five—fourteen fewer than WQXR, which is on the air only eighteen hours a day, and with only nine of them programmed separately.

Suppose, just suppose, that back in ’43 somebody had not decided to “play radio” and had managed to see it through with a staff of twenty-five. How many years of profit making would now be past history—years which the *Times* management might have taken into account during this presumably temporary period of economic depression? Simple arithmetic gives a clue: if the average WQXR salary in the late ’50s and early ’60s had been only $5,000 (a ridiculously conservative estimate), the station’s payroll for 100 employees would have been half a million dollars, not counting fringe benefits. A staff of thirty would have saved $350,000 annually.

During my week of interviewing, people expressed some very definite opinions and a lot of “should haves” to me: management should have inspired a sense of trust in the staff—should not have been so aloof, because all those restrictive union clauses came from a need for protection; WQXR should have had a publicity relations representative—Abram Chasins (music director in the Fifties) had one, with the result that the station was mentioned in Leonard Lyons’ column at least once a week; WQXR should have been more adventurous; WQXR should have been more conservative; WQXR should have had more personalities; should have had less talk: should never have lowered its advertising standards; should have taken on Preparation H years ago. But although there will be no easy answers, a few points must be considered. Clearly, classical music broadcasting will always be a marginal operation calling for the strictest frugality. And the evidence would seem to suggest that a station should find a definite niche and stay in it: trying to be all things to all people causes alienation at all levels. After the success of *Woody’s Children*, WQXR considered a revolutionary format for the entire day—a mixed-media approach combining classical, folk, non-acid rock, jazz, and theater music, all bound up in a framework of personality hosts. This, it was felt, would appeal to culturally aware people of all ages.

WQXR’s management presented the idea to a random selection of 100 listeners; it says all ages reacted badly—an attitude that is supported pretty well by today’s stratified listening habits. We have classical stations and rock stations and pop stations and background music stations and news stations, which means that once you’ve decided what you want to hear you know where to tune. WPAT, which is commercially successful, has gotten there with a pure wallpaper format; WNCN, also a success, is almost purely classical—and if anybody wants to put any credence in those questionable radio surveys, the successes have been at the expense of WQXR, which has lost audience as the others have gained. WNCN, catering almost exclusively to the serious music lover, has kept its staff and budget compact and economical. Everybody there is grimly devoted to the station and its welfare, and frankly they work like dogs. The small sales staff is in by 8:30 a.m. and on the road by 9:00; and it utilizes sales techniques of unbelievable sophistication. The end result has been a little money in the bank each month—not much, but enough. Of course WNCN is only thirteen years old, and has had a chance to profit from everybody else’s mistakes.

Finally, listeners must be encouraged to write to stations—a particularly hard job with a sophisticated, classically oriented audience. Obviously, stations need to know when they please and displease, and what might be wanted that is not already being provided. In the absence of any trustworthy sampling methods, managements rely heavily on listeners’ letters as long as the letters are rational, sincere, and free of obvious animus or excessive bias. Also, letters in impressive quantity are often great persuaders when dumped on an advertiser’s desk. In the end the survival of classical radio may very well depend on communications which run the other way—to the stations, and not from them.
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The GX HEAD is also "wear free" because of its hard and smooth surface and is guaranteed for highest sound quality for over 100 times the service life of conventional permalloy heads.

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The focused field recording system is possible only with a single crystal ferrite head. On the new GX HEAD, AKAI engineers were successful in focusing the magnetic bias field so that the influence of the bias is drastically lessened. Thus, highest quality recording sounds are now available to you.

The sharply contoured shape of the GX HEAD permits low frequency signals to be recorded smoothly without distortion. 20 to 30Hz super low frequencies can be recorded and played back with maximum stability.

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Features 3 GX Heads, automatic continuous reverse with sensing tape, manual reverse, 3 speeds, 3 motors, automatic stop/shut off, instant pause control, sound-on-sound button, and Super Range Tape (SRT) button for use when using low noise tapes. The two 7-inch reels can be completely covered with an optional plastic dust cover.

GX-280D Stereo Tape Deck
Features 3 GX Heads, 3 motors, automatic continuous reverse with sensing tape, manual reverse, automatic stop/shut off, instant pause control, sound-on-sound button, and Super Range Tape (SRT) button for use when using low noise tapes. The two 7-inch reels can be completely covered with an optional plastic dust cover.

GX-365D Professional Stereo Tape Deck
Features 3 GX Heads, world's only automatic continuous reverse (Reverse-O-Matic), sensing tape reverse, 3 motors, 3 speeds, automatic volume control (Compute-O-Matic) magnetic brake, automatic stop/shut off, instant stop/pause control, Super Range Tape (SRT) button for use when using low noise tapes, remote control socket, and sound on sound, sound with sound, sound over sound.

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Magnificent enjoyment from Columbia Records.

*Also available on tape.
The relationship that flourished between Josef Haydn and Wolfgang Mozart, mutually beneficial to both geniuses, is one of the more warming chapters in the annals of human behavior. Mozart wrote of his senior by two dozen years, "It was from Haydn that I first learned the true way to write string quartets," and in gratitude dedicated six of his "children" (Quartets Nos. 14-19) to his colleague with the following inscription:

To my dear friend Haydn. A father who had decided to send his sons into the great world thought it his duty to entrust them to the protection and guidance of a man who was very celebrated at the time and who, moreover, happened to be his best friend. In like manner I send my six sons to you, most celebrated and very dear friend. They are, indeed, the fruit of a long and laborious study; but the hope which many friends have given me that this toil will be in some degree rewarded, encourages me and flatters me with the thought that these children may one day prove a source of consolation to me. During your last stay in this capitol [Vienna], you, my very dear friend, expressed to me your approval of these compositions. Your good opinion encourages me to offer them to you and leads me to hope that you will not consider them wholly unworthy of your favor. Please, then, receive them kindly and be to them a father, guide, and friend! From this moment I surrender to you all my rights over them. I entreat you, however, to be indulgent to those faults which may have escaped a father's partial eye. and, in spite of them, to continue your generous friendship towards one who so highly appreciates it. Meanwhile I remain with all my heart your most sincere friend. W. A. Mozart.

The "approval" Mozart wrote of refers to the remark which a deeply moved Haydn had made to Mozart's father during a 1785 soirée at which the last three of the new quartets were played: "Before God and as an honest man, I tell you that your son is the greatest composer known to me either in person or by name. He has taste, and what is more, the most profound knowledge of composition."

That Haydn continued to grow, and was in fact deeply influenced by Mozart, is amply demonstrated by the older composer's many quartets penned after Mozart's mighty six. The twelve works contained in Opp. 17 and 20, however, date from 1771 and 1772, at least a decade before and probably are the very ones which "taught" Mozart how to go about his task. Though only a year separates the two collections, each displays a markedly dissimilar facet of Haydn's personality. The six quartets of Op. 17, while thoroughly mature and masterful of design, tend to be relaxed, gracious, and expansive. The six of Op. 20 (sometimes called the Sun Quartets), on the other hand, belong to the master's Sturm und Drang period. Here the style of writing is very taut, contrapuntally complex, and harmonically active (many of the finales, in fact, are fugal).

With the exception of the two unbelievably great works of Op. 77, Haydn never surpassed and rarely equaled the chamber music inspiration and sheer mastery of the Sun cycle. Mozart's quartets dedicated to Haydn, on the other hand, represent along with the so-called Hoffmeister Quartet, K. 499, his pinnacle in this medium. (For all their loveliness, the three later Prussian Quartets are by no means so intensely inspired or incandescent in content.) Haydn's praise was absolutely to the point. But not only is every one of the six a flawless masterpiece, each has a remarkably unique profile of its own.

The pathos-tinged gaiety of the G major, K. 387, for example, is worlds removed from the demonic, yet revered intensity of the D minor, K. 421. The E flat, K. 428 and the A major, K. 464 are both expansively lyrical, but while the first is all compactness and brevity, the latter is full-blown, almost Beethovenian in its vast dimensions. And the first movement of the famous Hunt K. 458 has few rivals for sheer bouncing chivallery.

The best music deserves the finest presentation: both the quality of performance and recorded sound one encounters on these imported Hungarian discs are calculated to raise reviewers' spirits. I am especially drawn to the wonderful playing of the Bartok foursome (whose personnel are Péter Komi& and Sandor Devich, violins; Geza Nemeth, viola; and Karoly Botvay, cello—all young Hungarian-trained musicians). Their first concerts here in 1967 led me to believe that the Bartok would be the true successor to the glory of the lamented Budapest Quartet—and this glorious set confirms that impression. These performances are on the whole richly expressive and lyrical. Indeed, some Mozarteans may conceivably...
find them tonally a bit too ripe and inflected for their taste, too romantic and yielding. But as with the Budapest, the Bartók players have a rich tradition and culture behind everything they do. All of their interpretations are structured, firmly nuanced, and quite without the occasional touch of preciousness that sometimes blisters the work of our own first-class Guarneri four-somes. They differ from the Budapest, though, in one particular: they are scrupulously mindful of repeats. The reproduction is ultrasound-like, with satin-smooth surfaces and plenty of amplitude and bite. The acoustics, I imagine, were those of a fairly large but intimate room. If you want the verisimilitude of a quartet in your living room, that's what you'll hear on these superb records.

The Tatrai Quartet (Vilmos Tatrai, Mihály Szücs, György Konrád, and Ede Banda) play in the Op. 20. István Várkonyi replaces Szücs as second violin in the Op. 17) are an older foursome than the Bartók, and have already achieved international fame, though I believe that they have never appeared in our own concert halls. As with the Haydn Erudity quartets of Op. 76 released here a few years ago, the new Tatrai albums top all stereo competition (also—the equally distinguished but utterly different Schneider mono editions are no longer available). The Tatrai plays with impeccable intonation. Rarely have I heard such flawless ensemble or such incredible center-chording. I daresay there is no quartet known to me “either in person or by name” that can approach the Tatrai on purely technical grounds. Musically, however, their style may take some getting used to. All the players opt for a very narrow, practically non-existent vibrato and that trait—combined with very tight, disciplined rhythm and clipped phrasing—makes for an ultra-assertive, almost brazen impact. At times, the bite of the fortes almost sounds like a brass ensemble or medieval consort. For some reason, be it the new second fiddle, more spacious microphone placement, more genial character of the music, or whatever, the Op. 17 sounds a trace gentler and less strait-laced in concept.

Still these performances, whatever one might think of them stylistically, offer string-quartet playing of consummate distinction and finesse. Scholars might note that the numbering of Op. 20 is somewhat different from that given in standard editions. Haydn himself is reputed to have changed the order around several times (in any case, he did not specify performance as a cycle). Moreover, the Tatrai have, for this recording, gone back to the 1772 manuscript and the edition first printed in 1800-I by Artaria, making a scholarly composite of the best features in both sources. The reproduction and processing are fine, though I preferred to subdue the slight stridency of Op. 20 by reducing the highs a bit on that set.

HAYDN: Quartets for Strings: Op. 17: No. 1, in E; No. 2, in F; No. 3, in E flat; No. 4, in C minor; No. 5, in G; No. 6, in D. Tatrai Quartet. Qualiton LPX 11332/4, $17.94 (three discs).

HAYDN: Quartets for Strings: Op. 20: No. 1, in E flat; No. 2, in A; No. 3, in F minor; No. 4, in D; No. 5, in C; No. 6, in D minor. Tatrai Quartet. Qualiton LPX 11352/4, $17.94 (three discs).

MOZART: Quartets for Strings: No. 14, in G; No. 15, in D; No. 3, in E flat; No. 4, in C minor; No. 5, in G; No. 6, in D. Tatrai Quartet. Hungaroton LPX 11400/2, $17.94 (three discs).

WHAT WILL YOU DO
INDOORS?
WHY!!! HAVE A PHONOGRAPH, OF COURSE.
IT'S A TAPPING MACHINE IN MICRO-
PHONIC, NO LARYNX, NO PHARYNX.
IT'S A TONGUELESS, TOOTHLESS INSTRUMENT.
IT MIMES YOUR TONES, SPEAKS WITH YOUR VOICE.
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THE QUOTATION IS ATTRIBUTED TO EDISON BUT IT SNACKS OF SOME VICTORIAN COPYWRITER PLYING HIS PEN IN THE CAUSE OF COMMERCE. NEVERTHELESS, EDISON'S PHILOSOPHY IS THERE—THE PHONOGRAPH WAS TO BE A TOOL, A SCIENTIFIC INSTRUMENT, A TOOL OF BUSINESS, A SOURCE OF MUSICAL ENTERTAINMENT AND CULTURAL ELEVATION—but it was also to be a device for freezing actuality in the service of history. And indeed the talking machine has been and done all these things, and much else besides, ever since the day in August 1877 when Edison, so the legend has it, spoke the words “Mary had a little lamb” and the tinfoil-coated cylinder spoke them back.

It was apparent from the start that an instrument now existed to capture and hold in perpetuity the voices of great ones. Edison and his agents (and soon afterward his competitors) rushed to record presidents, prime ministers, prelates, and poets. Gladstone spoke into the horn, and Robert Browning and Arthur Sullivan; later Oscar Wilde was to recite for preservation his Ballad of Reading Gaol—in so mincing and effeminate a fashion that the
listener understands, more clearly than any written word can tell him, why Queensberry loathed him and sought his destruction.

Performing artists approached the recording horn with mixed emotions. Not wishing to deny posterity a sample of their skill, they nonetheless feared to be remembered only by the squeaks and grinds of the early models. So—with varying amounts of reluctance—Brahms sat for his audio portrait. Santley and Patti agreed to record. Jean de Reszke said yes, but later commanded the destruction of every take.

And while all this was going on, the talking machine had lodged itself firmly in the mass culture. Pitchmen, bums, minstrels, and monologists made records that sold by the thousands. Music-hall favorites, brass-bandsmen, vaudevillians by the score spent days and nights on the windward side of the recording horn, repeating their fare continuously—for the technique of stamping out multiple copies had not yet been invented: every early record was an original.

From this material of the first phonographic half century (1877-1925), Kevin Daly has knitted about two hours of absorbing listening, wrapping the actuality sounds in a spoken mantle of history, mainly British. You hear the voices of great men, the sound of illustrious artists, the demotic tones of neighborhood comedians; you also hear the sound of gas shells at Lille in 1918 and the trumpet that blew the charge of the Light Brigade at Balaclava, recorded—I hasten to forestall the objection—by the surviving trumpeter in 1890. The totality is a fascinating patchwork quilt of social history.

Please though it is to have so rich a collection of the sounds of history, there is a grumble or two. Mr. Daly gives us snippets of records, not entire sides, and this is frustrating. Moreover, the ratio of commentary to actuality is too small: we could have done with a lot more early sounds and a lot less narrative prose. The five British narrators speak their pieces in rather stilted "elocution-teacher" fashion, which tends to inhibit repeated listening to the material. But if you want a curiosity record that enables you to hear and to keep the inflections of Bernard Shaw or P. T. Barnum, of Sousa’s Band or Armistice Day, 1918—why, here it is.

Meanwhile, back in America . . .

Much more than a historical curiosity is Victrola's resourceful collection of Butterfly excerpts originally recorded in New York during the Puccini heyday (and by artists of blinding luster who worked under the composer's own direction). While listening I kept wondering how somebody who had heard these artists back then would regard this record here and now. There may still be some veteran subscribers of the Met's 1906-7 season around, for operagoers are a hardy and long-lived breed. Would such a one now praise the voice of Geraldine Farrar for its headlong intensity and homogeneity—or would he find it (as I sometimes do) steely, rather unfeminine, with very little heart? Would he accept Caruso uncritically (in this role that never really suited him) and praise his youthful vigor and amplitude of tone—or would he seek out and nail a few mannerisms, the vain touches that the tenor was to shed as his voice matured?

Puccini himself had no illusions at the time. He came to New York in a thoroughly bad temper, cursing himself for having accepted the Met's offer of $8,000 to supervise a Puccini season in the early months of 1907. He thought the conductor an imbecile. To a friend who had called Caruso "a god" the composer wrote: "As regards your 'god'. . . I make you a present of him. He won't learn anything, he's lazy and he's too pleased with himself." But then he added: "All the same, his voice is magnificent."

He didn't like Farrar at all, complaining of her lack of suppleness, of her lapses from pitch, of the fact that her voice didn't carry in the theater. But he did not summon up enough courage to share his misgivings with that strong-minded Yankee lady; she learned of them only years later. "I have been told of acid letters of that time, where his anguish was voiced frankly in my disfavor . . . but, as nothing came out in the open, rehearsals were never unpleasant as far as I was concerned.

Puccini shared our curtain-calls and was all that was agreeable, as well he might be, seeing the royalties that came his way from our efforts." Butterfly was a raving success with audiences, a modified one with the critics. Puccini was interviewed, lionized, lunchted, decorated, recorded, and praised (by Edison, among others). He bought a splendid motorboat (with $500 proffered by a rich and enthusiastic autograph hunter) and had it shipped off to Torre del Lago. Despite all the money and all the kudos, the composer turned back to Europe with relief: "I have had all I wanted of America."

Yet in those few months Puccini had secured for his work a firm place in the Metropolitan repertoire, a share of the regular action that over the sixty-four succeeding years has yielded only to Verdi and Wagner. And though the composer raged internally at his singers, that first group—the legendary names in the present recording—became the founders of a tradition in the singing of Puccini's music that runs from that day to this, and beyond.

The special character of this record and the listening experience it offers suggest a relief from the normal critical process. I do not propose to make any more snippy little comments on the work of these singers, long dead and safely in Valhalla. If you care at all about operatic singing and the recorded voice, and above all if you respond to history, you will want to acquire Victrola 1600. Take it home. Read Francis Robinson's sleeve note about the circumstances and personalities involved in the Butterfly premiere, then start the music and close your eyes. Go back if you can to 1907, listening actively and creatively to Puccini's score as though it were new-born—for it was when these recordings were made. You may find this "time machine" experience as deeply rewarding as I do. More powerfully than books on the art or records, this record can tell you how things were then.

"THE WONDER OF THE AGE: MISTER EDISON'S NEW TALKING MACHINE." The story of sound recording 1877-1925 compiled from contemporary writings and illustrated by archive recordings. Voices include Edison, Florence Nightingale, P. T. Barnum, Melba, Caruso, many others; produced by Kevin Daly. Argo ZPR 122/3, $11.90 (two discs, mono only).

Puccini: Madame Butterfly: Amore o grillo; Ancora un passo; leri son salita; Un po' di vero c'e; Un bel di; Ora a noi; Sai cos' ebbe cuore; Tutti fiori? Non ve l'avevo detto; Con onor muore. Geraldine Farrar (s), Butterfly, Louise Homer (c), Pinkerton, Antonio Scotti (b), Sharpless; various orchestras, RCA Victrola VIC 1600, $2.98 (mono only, recorded 1907-16).
Three North American Keyboard Virtuosos Give Bach A

Glenn Gould: The Well-Tempered Clavier
Anthony Newman: The Goldberg Variations

by Robert P. Morgan

These two recent recordings of Bach keyboard works have much in common, despite the fact that Gould performs Bach on the piano while Newman does so on the harpsichord. Both players belong to the younger school of Bach interpreters, and both approach the music with a strikingly original conception, which is never doctrinaire and yet is solidly based on sound knowledge of baroque performance practices. Further, both players come equipped with a rare combination of really exceptional technique and musicality.

The Gould disc, which contains the last eight preludes and fugues of the second volume of the Well-Tempered Clavier, represents the final disc (there are now six in all) of his integral recording of the complete set. I have written at length in these pages about my admiration for earlier discs in the series and will confine myself here to noting that I am equally enthusiastic about the present offering. If anything, it is in fact superior to the others in that it seems less mannered, without however losing any of Gould's usual flair for the unexpected.

As for the Newman, it is equally impressive; his playing, in fact, reminds me considerably of Gould's—not so much in particulars as in his general outlook. He plays with consummate virtuosity—some of the passages in the variations are performed at such high speed that the listener is apt to suffer disorientation until he sufficiently familiarizes himself with this reading. There are many interesting features: although not all repeats are observed, when they are taken they are frequently varied through the use of dotted rhythms (the so-called notes inégales). Also, Newman handles the tricky problem of registration most convincingly, producing sufficient variety without making it seem overly fussy. It is a first-rate performance of a difficult work, one which places Newman clearly among our foremost Bach interpreters.

Both albums belong to Columbia's recent set of Bach releases, all five of which come with a large poster of the illustration on the album cover. Each of the illustrations I received is a "portrait" of Bach, done in an aggressively "mod" manner which completely misses the spirit of the music it "accompanies." One wonders what they will think of next to sell records (now that the music itself is apparently insufficient). Perhaps dancing girls?

Bach: The Well-Tempered Clavier, Book II: Preludes and Fugues: No. 17, in A flat; No. 18, in G sharp minor; No. 19, in A; No. 20, in A minor; No. 21, in B flat; No. 22, in B flat minor; No. 23, in B; No. 24, in B minor. Glenn Gould, piano. Columbia M 30537, $5.98.


Igor Kipnis:
The Harpsichord Concertos

by Clifford F. Gilmore

It is hardly news to anyone that for the last decade or two the younger generation has been leading a revolution in present-day performance styles of old music. On the one hand, musicologists have unearthed vast quantities of material, giving us a much clearer (though still approximate) idea of how those early musicians themselves played their music; and on the other there is an increasing desire, especially among our younger generation of performers, to play the music of all periods in the style current at the time of its composition. In the
case of baroque music and Bach in particular, it had seemed for quite some time as if practically all this activity were going on only in Europe. Now in the last few years, however, a few American performers have moved into the front ranks of this still highly specialized area, not by imitating their European predecessors, but by developing a uniquely American approach—equally well-informed on matters of stylistic accuracy and typically virtuosic, spontaneous, and often controversial or "experimental" in nature.

Igor Kipnis is not exactly a newcomer to the field, having made his New York debut in 1959, but this four-disc set of ten harpsichord concertos is his most formidable contribution to the American record catalogue to date. And let me say straight off, it is a spectacularly successful contribution. His grasp of the special idiomatic requirements is unsurpassed by even the best of his European counterparts; his performances are exciting, and he is joined here by one of the world's great chamber ensembles.

Before getting down to specifics, however, let's see just what is in this box with that invariably ambiguous label "complete." The usual collection includes the seven concertos for one harpsichord, the three for two harpsichords, two for three harpsichords, and one for four harpsichords. The A minor Triple Concerto (for flute, violin, and harpsichord) is often included as well. Kipnis omits the concertos for two, three, and four harpsichords but adds a No. 8 to the seven canonical works for one instrument. Bach left a nine-measure fragment for the piece indicating that the first movement was an arrangement of the opening sinfonia of Cantata No. 35. Kipnis has used a second sinfonia from the cantata as a third movement for the concerto and arranged the opening alto aria for the second movement. Others have also completed this fragment, including Gustav Leonhardt, who recorded his version for Telefunken. Kipnis also includes the Triple Concerto and the fifth Brandenburg Concerto.

Telefunken has only recently completed its five-disc integral version of the harpsichord concertos (including the multiple concertos) with Gustav Leonhardt. I found those performances well-nigh perfect in every detail, so I decided to play through the records again, compar-
compare this with the totally different choral technique of Father Bach) to the fully developed accompanimental patterns of *Wider den Uebermut*, and from the cheerful harmonic simplicity of *Der Frühling* to the chromatic pathos of *Jens in Gethsemane*. The melodic content tends to be rather dull and probably for this reason neither Fischer-Dieskau's sophisticated art nor the beguiling sound of Demus' 1793 Tantengenflügel (an instrument "between the clavichord and hammerclavier" according to Archive's detailed notes) can keep us involved for more than a few songs at a time. But if German Lieder is your thing, here is a rare chance to hear the form (as we have come to know it) in one of its earliest stages of evolution. P.G.D.

**BEETHOVEN:** Wellington's Victory, Op. 91; Musik zu einem Ritterballett, WoO. 1. Witt: Symphony in C (Jena). Westphalian Symphony Orchestra, Hubert Reichert, cond. Turnabout TV 34409. $2.98.

More footnotes to the birthday year—and mostly footnotes to the appendix, at that. This version of the poor old *Battle Symphony* has little to recommend it save sobriety, and if that's what you want in a recording of this piece, the Scherchen (now Music Guild S 801) is both better played and more responsive to the admittedly slim musical content. Beethoven's requirements are met in the matter of percussion, but Reichert's lugubrious three-to-the-bar speed in the final allegro is simply disastrous.

The pleasant "Knightly Ballet" of 1791 is rather more successfully handled, although lacking somewhat the style of Müller-Brühl's imported recording (Schwann/Musica Mundi VMS 700/1, with the best complete *Prometheus*). Connoisseurs of influence will wish to note the Romance (No. 4 in the score), a close relative of Pedrillo's little serenade in Mozart's *Mozart's Einführung*.

Finally, as Anna Russell might say, "D'you remember the Jen a Symphony?" For years, this innocuous if well-made classical symphony bounced around among the experts, on the basis of Fritz Stein's discovery that Beethoven's name was written on some of the parts in the Jena archives. There was even a 78-rpm recording at one time (by Werner Janssen), but nobody ever seemed convinced, and all were greatly relieved recently when another source turned up bearing an ascription to Friedrich Witt (1770-1837). The latter now takes his place in Schwann (somebody up there must be on the ball, since Turnabout has done its best to keep the re-attrtribution a secret; nowhere except in the small print of Egon Krenn's excellent *linear phrasing-on the whole it reminds me of Bach's* way with the music. You might say that the Lill/Rozhdestvensky contribution is negligible, but their potential in this music is very great indeed. However, it should have been offered on a low-priced label.


Two very competent performances, but not really comparable to the brilliantly sustained and finely detailed readings by Peter Pears and the composer (recently recoupled on London OS 26161, as have been their respective flip sides, the *Bridge Variations* and the *Young Person's Guide*, now on CS 6671).

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**Explanation of symbols**

- **Cassette**
- **Budget**
- **Historical**
- **Reissue**

**Prerecorded tape:**

- **Open Reel**
- **8-Track Cartridge**
- **Cassette**

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**HIGH FIDELITY MAGAZINE**
The great Salzburg collaboration.

For a Herbert von Karajan, the problem of surpassing past efforts becomes increasingly difficult. That is especially true in his recordings for Angel, where he has accumulated 25 years of superlatives.

But his recent, more aggressive schedule with us has only proved his claim to those superlatives. Last year brought the monumental Beethoven Triple, with Cisrakh, Rostropovich, and Richter. Next, a superb Franck D Minor Symphony, with the Orchestre de Paris. Then, a masterful Tchaikovsky First Piano Concerto, with Alexis Weissenberg.

Yet to come this year: the dazzling promise of Die Meistersinger and Fidelio.

And now, Salzburg’s greatest conductor pays happy tribute to his home town’s greatest composer. With his Berlin Philharmonic, Karajan has recorded The Last Six Symphonies of Mozart.

What takes these albums beyond mere beauty? Karajan’s titanic discipline. His unswerving dedication to the music. His desire—indeed, his insistence—that each member of the orchestra contribute his own emotions, his own insights to the performance.

Finally, in this Salzburg collaboration, Karajan must also have been driven by chauvinism. The world is clearly the winner.
Heather Harper reminds us, as did Janice Harsanyi before her, that Les Illuminations was originally conceived for soprano, and she sticks to the original vocal line at several places that Britten evidently modified for Pears, but the singing has much less point and variety—Pears, even subject to the vocal limitations of his sixth decade—remains one of the age's great vocal interpreters. Tear manages a good imitation, in the Serenade, but it is still palpably an imitation. I would be very happy to hear either of these performances in concert, but (especially at full price) they are simply not competitive as recordings.

The sound on the review acetates was excellent, and texts for two transcriptions of Les Illuminations are promised.


Beginning at the end of this program: Heinz Friedrich Hartig's Perche for guitar and choruses, composed and performed more than two years before his death, is an expressive lamentation on the word “why”—why misfortune, why tears, why war, why the dead and wounded. Each short movement, addressing these subjects in turn, is pointed and complete, ranging in mood from an ecclesiastical serenity to incisive, bristling-like vocal pressing and prodding. to a small kind of canny theatrical know-how that in itself in a foreign-dominated country. But the situation has been more urgent in some ways, not as clearly, solid, and well balanced compared to the rather foggy reproduction on the 1956 edition. The cast here is completely different (György Melis, Biberach in 1956, now sings the peasant Tiborc), but the vocal problems are apparently endemic. Simándy displays the range of a most tenor now sounding rather frayed, while Karola Agay's disembodied coloratura and Erzsébet Komlóssy's ubiquitous wobble are something of a trial. The cast generates plenty of dramatic authority and enthusiasm and the orchestra under Ferenczi's sure leadership does a fine job, but the density of strong voices really tells in this music. For the opera itself, though, you may find critical forbearance worthwhile. Unlike the older set, the new one is provided with a complete translation of the libretto into English and German.

P.G.D.


FRANCK: Complete Works for Organ. Listing as above. André Marchal, organ (Great Organ of the Church of Saint-Eustache, Paris). Opus OR 299-301. $6.67 (three discs); available by mail from Musical Heritage Society, 1991 Broadway, New York, N.Y. 10023.

It's been a number of years since we've had anything like a complete recorded edition of these twelve pieces—many of them staples in most organists' repertoires—and here we have two at once, both of which deserve serious consideration. Jean Langlas' three-record set on the same label would have appreciated and actually the entire work is full of attractive effectively written music and anyone with a healthy ear and red-blooded nineteenth-century opera should enjoy this one hugely. Much of it reflects Italian and German models but is none the worse for that. And one decidedly original touch—Western-flavored music for the "bad guys"—and Hungarian virtuoso strains for the "goodies"—works far better for Erkel than a similar procedure. (Polish polonaises vs. Russian folk tunes) did for Glina in his Tsar. One problem, raised here by the notes to Hungraott's new recording, is a textual one. Evidently Banh ban was revised extensively in the 1930s by the Budapest Opera because "the original libretto was not worthy of Erkel's music." Not only were the words rewritten, but the musical revision omitted certain voice parts. turned trios into duets, and choral sections into orchestral interludes, etc. This all sounds rather drastic, but without the two versions on hand for comparison, one can only hopefully assume that the Hungarians knew what they were up to.

Jeanne Demessieux—striking performances of Franck, played in the grand French manner.
Pioneer’s new SE-L40 stereo headphones flabbergasted the experts.

High fidelity dealers are probably the most blasé guys in the world. They’ve seen everything. They’ve heard everything. You really have to have something extraordinary to impress them. So when we introduced the new Pioneer SE-L40 stereo headphones at a recent home entertainment electronics show for dealers, we were overwhelmed at its enthusiastic reception. We expected applause. We received an ovation.

These super critics marveled at the new open-air design which enhances the intimacy of personalized listening. They enthused over the incomparable bass reproduction achieved by a combination of technological advances and newly developed speakers nestled into each earpiece. They lauded the extreme lightweight, nearly one third less than present headphones. Their conclusion: the SE-L40 is a complete departure from conventionality.

If you’re still skeptical and believe that Pioneer high fidelity dealers went overboard with their acclaim for SE-L40, there’s only one way you’re going to be convinced. Visit a Pioneer dealer and listen SE-L40 stereo headphones, $39.95, with carrying case. Other quality Pioneer headphones from $24.95.

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PIONEER
when you want something better
legendary accounts are still with us on Mercury and Philips. Both Demessieux and Marchal are authoritative players who are equally at home in this repertory, and both have made their recordings on organs well suited to Franck’s almost mystical, highly serious works. Marchal plays on the organ of Saint-Eustache in Paris, an instrument that Franck himself helped to inaugurate in 1854. It has since undergone several restorations, most notably by Bonzalez in 1967. Demessieux, though, plays on the genuine article—the Cavaille-Coll organ in the Church of the Madeleine in Paris, where she presided for about ten years until her untimely death in 1968 at the age of 47 (her predecessors there included both Saint-Saëns and Fauré). The organ is a truly remarkable instrument, similar in layout to the Cavaille-Coll at Sainte-Clotilde, Franck’s home-organ for more than thirty years and the instrument on which he composed all twelve of these pieces. Listening to Cavaille-Coll’s broad, incredibly rich foundation tone and the smothered brilliance of its reeds is like swimming in a pool of chocolate fudge—if you have that kind of sweet tooth, it’s sheer ambrosia.

Having heard Marchal’s records first, I was prepared to give them an unqualified recommendation. He approaches his tasks with seriousness of purpose, and he handles the instrument in a colorful and inventive manner. In short, everything is in order and anyone out to buy three records of Franck organ music should be altogether satisfied with his account. My first reactions on hearing Demessieux, though, were that I preferred her organ and that it was more clearly recorded—some of the passage work obscured in the Marchal set may be more easily distinguished here. Further listening revealed again that Jeanne Demessieux was a truly striking performer in the grand French manner. In the smaller, more meditative pieces, there is little to choose between her and Marchal, but in the larger pieces, especially the more dramatic ones, she really generates an astonishing amount of electricity, excitement, and drama. One can almost see the flames licking out from around the swell box as she unleashes the powerful music with dynamic shaping—everything is more as emphasized as they might be. Some-
You can tell a record by its cover.

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Like the baroque craze of the '50s, the current Romantic revival is being amply documented on disc by a number of small independent labels, the latest being Genesis, a newcomer from the West Coast. These three initial releases open up an unexplored piano repertory that is really less than entertaining on one level and an instructive guide to changing musical fashions on another.

One of the moving spirits in this new series (and the records at hand are evidently only for starters) is Frank Cooper, a professor at Butler University in Indianapolis and the impresario of that institution's annual Romantic Music Festival. On his solo disc Cooper offers a generous selection of music by Henri Herz (1806-1888) and Franz Humen (1793-1878), both exceptionally accomplished pianists and indefatigable composers of operatic fantasies and once fashionable salon mazurkas. These pieces are so superbly tailored for the keyboard that one wonders why pianists did not continue to play them, for practice exercises if for no other reason, so beautifully do they lie under the fingers. Cooper obviously relishes playing with these trinkets and he polishes them off with crystalline articulation and warm affections. An extra measure of virtuosic dash for the flamboyant Herz variations and elegant charm for the more puckish Humen would have been welcome, but Cooper makes a good case for his two heroes and the recorded sound of his Bosendorfer is full and vibrant.

I don't think anyone would care to make extravagant claims about the staying power of this music—it was written to titillate another age, did its job to perfection, and died a natural death. In his liner notes, however, Cooper rather desperately casts about for an actual murderer. He comes up with Schumann, who is pictured as rabidly jealous of Herz and Humen ("He wanted to be like them and was miserably equipped for the task"), and who eventually managed to convince the world that the two were totally worthless. Of course Schumann had no use for Herz and Humen and wrote deprecatingly of them; but if the two had never passed from favor it was the poetical and intellectual superiority of Schumann's music that dealt the blow, not his critical writing. I'm happy that Cooper is resurrecting these composers for our inspection and re-evaluation, but let's try to keep some sort of perspective.

Doris Pines's recital is devoted to Godowsky: judging from the occasional bursts of applause, this is the live concert she gave in New York last winter to celebrate the pianist/composer's 100th birthday. And a fascinating disc it is. Most of the music here consists of paraphrases and genre pieces, but Godowsky really apotheosized the art with incredible contrapuntal elaboration, thematic metamorphoses, and multilayered textures—the Fledermaus and Chopin etudes transcriptions recorded here are not only ingenious but, in their own way, fully as creative as the originals. Less successful is the first movement of the immense five-part E minor Sonata, a sixteen-minute ramble that sounds rather like a paraphrase in search of a theme. Considering the complexity and difficulty of the music, Miss Pines pulls off a Herculean assignment with disarming ease and very real accomplishment: not only does she keep these vast structures in firm, accurate proportion, but her plump, ripe tone and care for musical detail often illuminate the music with sparkling clarity.

The third disc pairs two sonatas in F sharp minor by Josef Rheinberger (1839-1901) and Adolf Jensen (1837-1879). The Rheinberger strikes me as a dull, predictable, derivative piece, but Jensen's effort shows a more original mind at work. Each movement is quite long, but the music is hopeful—and there are some achingly beautiful ideas here—rather flags and the purposeful musical direction is never lost. There are few large-scale Romantic piano sonatas after Beethoven: this is one of the best and deserves a revival. Adrian Ruz dispatches each work with crisp technical efficiency, but they both would benefit from a less literal approach and more tonal color.

G.P.D.


HUMPERDINCK: Hänsel und Gretel. Renate Hoff (s), Gisela Schröler (ms), Gertrud Peter (Witch), Theo Adam (b), Peter Boys; Choir of the Dresden Kreuzchor, Dresden Staats-kapelle, Karajan. Telefunken SAT 22521/2, $11.90 (two discs).

I see so many operas. Hänsel und Gretel works for all the wrong reasons. Here is a simple folk story, earnestly turned into Wagnerian music drama complete with a large orchestra and a complex contrapuntal web of leitmotifs. Yet it does work thanks to Humperdink's dewy-fresh melodies, deft technique, honest sentiment, and utter lack of pretense. This is definitely not a children's opera, but an opera about children for nostalgic adults.

Telefunken's new recording from East Germany is a pleasant performance, but conductor Suinmer rather shortchanges us by holding back when there is an expansive musical point to be made. I suppose the general idea, a mistaken one it seems to me, was to keep everything as light and restrained as possible. Karajan's old mono recording on Angel is still the paradigm: the conductor's warm, glowing presentation of the score does not attempt to compensate for Bach's rich symphonic quality, while Schwarzkopf and Grimmmer, two very sophisticated children, paradoxically capture the flavor of the piece more accurately and movingly.

There are no great voices here, but all the singers perform stylishly and unafleetedly—only Renate Hoff's slightly pinched soprano occasionally disappoints. It has always been
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Both these pieces can seem, in performances below the level of the Chicago's under Ozawa, fairly tiresome excuses for beating on orchestral kitchenware and raising the dubious flag of modernity between one reading of a nineteenth-century symphony and the next. But Ozawa brings a lightly bounding stride to the usually hobnailed Janácek and races it along brilliantly, achieving a sparkle and exuberance not found even in such conductors as Ancerli or Szel, whose interpretations can claim to be rooted in Middle European authenticity. Ozawa, always the best in complex, brilliantly colored music, sweeps aside reservations, taking what might be called a jet-propelled, internationalized view of Janácek. The Chicago brass rings out heroically, all choirs beautifully in tune, and the entire orchestra follows Ozawa's elastic beat with breath-taking precision.

The Lutoslawski, written more than thirty years after Janácek's score, is not significantly more advanced in its percussive approach, though technically far more sophisticated. The Chicagoans play throughout on the tip of the conductor's stick as if responding directly to it rather than to another's sound. Angel's engineers have been looking for ways to make Chicago's Medinah Temple, where the orchestra records, sound like a first-rate music hall, which it is not. On this disc they achieve spaciousness that particularly suits such densely orchestrated pieces, and a depth of focus (in photography terms) that lets nuances of voicing and registral color be heard. There are few depths of any other sort in the Janácek or the Lutoslawski, but Ozawa and Chicago compensate for that lack with performances that place this record on the top shelf for sound and musicality. D.J.H.


LISTZ: Choral Works II: Hymne de l'enfant à son réveil, Tantum ergo; O salutaris hostia; Psalm 137, with our interpretation of Psalm 13 that once found its way onto programs of the more enterprising sort? These two discs from Hungaroton, then, come at a good moment to throw light into one of the few obscure corners of Liszt's output, and they do so quite elegantly.

Considering the two records in sum, a listener with no prior awareness of Liszt's ecclesiastical leanings might be hard put to reconcile these three pieces with his floridly dramatic piano music and his bombastic orchestral music. The connection might be betrayed by the harmonic daring, which often takes Liszt up to the brink of atonality, as for instance in Ossa arida. But the four-part Mass for male chorus and organ, more characteristic of the sacred works, sounds almost ostentatiously austere and pious. The Mass heard here in a revised version from the Abbe Liszt's Roman period, launches itself with a marvelous Kyrie, but soon falls off in interest. For one reason or another, a strange estrangement pervades many of these pieces, both those composed in old age and such earlier efforts as the Pater Noster from the oratorio Christus. Tosone, of course, it may sound like the peace that pasells understanding, but the fact is that in very little of the music on either record does Liszt show much joyful vigor or strength. Rather, he is generally applying a skillful but genteel chromatic gloss on older sacred styles such as the church modes and organum.

Let's being a man of genius, there are times when the innovator comes to the fore, as in the Psalm 137, with its eccentric but effective use of disjunct arpeggios for harp and violin to punctuate the vocal line. Here, for a moment, we have virtually an operatic scene. We know much of his choral music beyond that in the Pater Noster from the oratorio Christus. Such, of course, can turn shrill. The modernity of Liszt's vision in this regard is accurately reflected in these performances, which are correct and painstaking, even though the chorus, on Choral Music II, sometimes delivers a rather hard, white tone, and one tenor soloist can turn shrill. The style's characteristic choral messa di voce, so well parodied in our time by Fred Waring and college glee clubs, is impressively managed by the massed voices.

Choral Music I, which won a Grand Prix du Disque in 1969, is worth acquiring, fer, in particular, its one perfectly aged, unchuronic (though unabashedly sentimented) setting of Lamartine, Hymne de l'enfant à son réveil. Liszt puts a patina of calculated musical
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LISZT: “Satanic Piano Music”: Czardas Macabre; En Rêve; Etude d’execution transcendante d’apres Paganini, G. 140, No. 2; Funéralies; Mephisto Waltzes: No. 1; No. 3; Trauervorspiel und Trauermarsch. John Ogdon, piano. Seraphim S 60170, $2.98.

An enterprising Liszt recital, ranging from the conventional “macabrisms” of the first Mephisto Waltz and Funéralies written during the composer’s middle period to the distant and abstract mysticism of the late years. The latter period is amply documented in all its diversity by the demonic third Mephisto Waltz and Czardas Macabre, the cryptic Trauervorspiel und Trauermarsch, and the pellicid delicacy of En Rêve. Ogdon plays everything with breadth and low-keyed poetry. Although not a slick, sharpshooting pianist of the every-note-in-its-place school nor an intense lyricist on the order of Arrau or Richter, the English artist’s adroitly concealed pyrotechnics are nevertheless capable of sublime delicacy (the trills in the first Mephisto, the limpid bell-tones of En Rêve) and also blockbusting decibels (the magnificent weighty sonority without a trace of harshness in the opening measures of Funéralies). Ogdon’s Liszt, scholarly and reserved though it is, wins me over because it is completely without treacle or artifice. These sober, dry-eyed, meticulously gauged and yet freewheeling performances interestingly emphasize the pre-Bartok and impressionistic strains which were to influence music history tremendously in the years following Liszt’s death.

Seraphim’s recording is exceptional for its natural, ungimmicked brilliance: the piano’s treble has champagnelike sparkle, but the glitter is complemented by a full, resonant bass. An excellent bargain in every way.

LUTOSLAWSKI: Concerto for Orchestra—See Janaček: Sinfonietta.

MASCAGNI: Cavalleria rusticana. Zinka Milanov (s), Santuzza; Margaret Roggero (ms), Mama Lucia; Carol Smith (c), Lola; Jussi Bjorling (t), Turiddu; Robert Merrill (b), Alfio; RCA Chorus and Orchestra. Renato Cellini, cond.

ZINKA MILANOV: “Opera Recital” Belina: Norma: Mira, o Norma (with Margaret Harshaw) Verdi: Il Trovatore: Misereere (with Jan Peerce); D’amor sull’ali rose; La Forza del destino: Pace, pace, mio Dio. Zinka Milanov.
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The Milanov voice was at its most luscious and velvety in the early Fifties when this Cavalleria from RCA Victor LM 6106, 1953; the arias from various RCA Victor originals, recorded 1945-46.

Classical record buyers have little enough to be thankful for these days, but now and then a fact is thrown their way. Two years ago Philips made everyone happy with their decision to import all new releases from Holland -before then the chances of finding a domestically pressed Philips disc free of gritty grooves, pops, clicks, etc., were virtually nil. Now, of course, U.S. purchasers have access to the same high-quality processed records that European collectors have been enjoying for years.

Converting past releases into imports was the next logical step and Philips is presently doing precisely that. Most (but not all) of the 100 or so domestically pressed Philips discs currently listed in Schwan will be replaced by imports before the end of October. After spot-checking about twenty-five of them in both formats, I can report that the improvements are pretty dramatic. Not only did each import truck flawlessly and silently (as opposed to the frequent skips and explosions on the domestic versions), but the sound quality also proved to be superior in almost every case. The problem with the local pressings, I suspect, was that American engineers, during the tape-to-disc transfer, tried to "rectify" the traditional European preference for more distant perspectives. Even if this little recital emerges as rather nonsensical in this "concert" version with Pearce and the male chorus right on top of the microphone -the whole musical point of the piece is its shrewdly devised off-stage perspectives. Even if this little recital is not vintage Milanov, Vittoria deserves a vote of thanks for restoring it to the catalogue and rounding out our picture of this important singer.

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**Mendelssohn: Symphony No. 3, in A minor, Op. 56 (Scotch)**

Had Dean Dixon been born a generation later, it is quite possible that he would not have had to go to Europe and Australia to pursue the major portion of his career. But, in the immediate postwar years, when an American conductor should have been taking root with a resident orchestra, the climate was simply not conducive to the idea of a black conductor giving orders to an orchestra of white musicians. Happily for Dixon, and for American audiences, he has in the past couple of years been again conducting in this country.

From his occasional records for various smaller record companies, we know Dixon to have developed into a conductor of fine musical sensitivity with a complete technical ability to get orchestras to play as he wishes. The present record of the Mendelssohn Third Symphony shows these qualities well, but it also betrays a certain reticence, a lack of intensity and drive that may be inherent in Dixon’s temperament or may result from a certain caution in working with an excellent but understaffed orchestra.

The Prague Symphony Orchestra, at least as recorded here, must be nearly twenty-five per cent smaller than a major U.S. or European orchestra. This is especially evident in the sound of the strings, which play with exemplary tone, intonation, and ensemble. But lack of command over all impact is within these limitations, and possibly aided by the recording engineers. Dixon scrupulously avoids overwhelming the strings with the woodwinds and brass to a point that sometimes seems overcautious in terms of the rhythmic and expressive requirements of the score. One misses the soaring melodic line that a numerically adequate string section should produce when called for by Mendelssohn’s score. Similarly, in the sectional accent and tutti power, not only are the strings sonically inadequate, but the winds and brass seem unduly restrained. However, within this smaller scale, the orchestra plays with a very good range of dynamics, good ensemble blending, and under Dixon’s direction, a sweetness and sensitivity lacking in many more dynamic performances.

Without comparing this record with the higher-priced issues by Bernstein or Klemperer, one finds that it competes well with the Victora reissue of Munich’s rather hectic but orchestrally sumptuous reading with the Boston Symphony and with Peter Maag’s beautifully poised performance with the London Symphony Orchestra. Sonically, this record produces a well-balanced concert-hall sound.

These are fair performances by a good musician conducting a fine orchestra, but no particular distinction attaches to them. Bernstein’s healthy musical instincts carry him through almost any task, though in this instance without real identification with the works. He makes music with gusto, but without matching his engaging verve with stylistic finesse. Basically a romantic, he latches on to opportuniites offering nineteenth-century expressive possibilities, as, for instance, in the introduction to the Linz Symphony. On such occasions the string tone gets a little fat and the crescendos soundful; but the allegro gets well, the sound is leaner, and there is a good propulsive quality. The second movement is also well done except for a couple of uncalled-for Luftpausen. The trio in the minuet could have been a little more aristocratic, though this movement too will pass muster. The presto finale calls for the utmost clarity and precision and the New York Philharmonic, abundantly capable of both, obliges most of the time. When it does not, as in the inelegant slurring of some fast legato passages, the conductor is to blame. This work is without a firm concept of the melodic quality of such runs he cannot enforce their proper execution, even with an excellent orchestra.

The first movement of the Jupiter calls for a highly festive mood, and all of it allegro vivace. To maintain the balance of mood, articulation, and speed is difficult, and though the playing is fair, Bernstein is aware of only half the truth; he is festive, but with a trifle too much deliberation. The magnificent andante was bound to bring out the romantic in the conductor; he puts a little icing on the melodies and things become somewhat sentimental, especially when he slows down before the reprise; but the woodwinds play so attractively that we are not unduly disturbed. The minuet is a bit stodgy, while the finale lacks virtuosity, and is simply proper rather than exciting. At the end Bernstein slows down considerably, recalling the Beecham tradition. This sort of thing robs the triumphant movement of its strength. Mozart never relaxes his symphonic elan, why should he be forced to do so? Throughout the recording there is excellent orchestral balance and the winds are never swamped. There is a little echo here and there, but on the whole the sound is very good.

**Paganini: Concerto for Violin and Orchestra, No. 4, in D minor; Le Streghe**

**Bottesini: Grand Duo for Violin, Double Bass and Orchestra. Ruggiero Ricci, violin; Francesco Petracchi, double bass (in the Bottesini); Royal Philharmonic Orchestra, Piero Bellugi, cond. Columbia M 30574, $5.98.

For some reason, the Concerto No. 4 seems to be one of the also-rans among Paganini’s five works in the medium; Ricci’s new recording stands alone in the current catalogue, and if there have been intervening recordings since Grumiaux’s in the early Fifties I cannot find them. (Nor do I understand the comment in the jacket notes that No. 4 has often been assigned the No. 3 position among the concertos, but has in the past few years been accepted as No. 4. It was accepted as such on Grumiaux’s disc, and there is no question of its designation in the G. J. de Courcy biography of Paganini of 1957.) In any case, the piece is representative...
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of the composer and his art, and its wallflower position is hard to account for. There is, in the first movement, the customary ingratiating lyric line that provides moments of repose between exhibitions on the high wire: there is a lovely singing slow movement which Ricci warms up with at least one prominent operatic Italian-tenor solo: there is a scintillating finale, decked out in the orchestra with tambourine and notable for one very delicately orchestrated passage accompanying the violin in its double-stopped harmonics. Ricci is master of all of it, except for some moments when his rhythmic pace does not seem to me rock-solid. His intense vibrato, even in stretches of lyric ease, struck me at first as too much of a good thing, but eventually I saw the point—namely, to maintain the tension consistently throughout—and it proves its validity.

The Grand Duo for Violin and Double Bass by one Giovanni Bottesini (1821-1889) is masterful fiddler for Pagannini’s Fourth Violin Concerto and Le Streghe.

Puccini: Madame Butterfly (excerpts), Geraldine Farrar (s), Louise Homer (c), Enrico Caruso (t), Antonio Scotti (b). For a feature review of this historic recording, see page 84.

Rheinberger: Sonata for Piano, in F sharp minor, Op. 184 (Romantic)—See Herz: Piano Works


Except for a 1968 Renzi/Hague Philharmonic version for Vox (which I haven’t heard nor ever reviewed), the handy Orgue Symphony has been given a well-earned rest in recent years. Perhaps it’s in expectation of an upcoming “quadro” era that we now have the first of what well may be a new series of spectacular display versions. If so, the present British engineering is all the more remarkable for its unremarked naturalness. The stereophism here is transparent yet sonically warm, smoothly spread and balanced (including an ideal equilibrium between organ and orchestra), and it captures well-nigh to perfection the spatial perspective of a listener located halfway back in UCL’s Royce Hall. My only technical complaints, and they’re peddling ones, are that (as usual), I can’t hear some of the soft triangle strokes (like those on pp. 84ff of the Durand pocket score), and that I do just barely hear a strange left-channel burble (an organ pedal-tone resonance or entirely extraneous motor noise?) which appears and immediately disappears—p. 67 shortly before the end of Side I.

The Los Angeles players demonstrate again the progress they’re making under Mehta, and the conductor himself is wholeheartedly intent on exploiting the work’s full expressive and impressive potentialities. After a comparative replaying of the generally acclaimed favorite older version, by Munch for RCA, I discovered that the 1960 recording remains the more exciting sonically by virtue partly of its more vivid presence and spaciousness, but mainly by its more refined, indeed elegant tonal qualities. Interpretatively too Munch remains unsurpassed for dramatic grip as well as for crisper, tauter control of the orchestra. R.D.D.

Schmelzer: Sonata Nataleitaria a 3 Chori: Sonata II a 8; Sonata a 4 (La Carolietta); Sonata I a 8; Sonata a 3; Sonata IV a 6; Sonata a 7; Sonatina a 5; Fux: Sonata a 3 Violins, Serenade a 8 (from Concertus musici instrumentalis, 1701); Rondeau a 7; Sonata a Quattro. Concentus Musicus Wien, Nikolaus Harmscourt, cond. Telefunken SAWT 9563-4: $11.90 (two discs).

Titled—somewhat misleadingly—“Music at the Hapsburg Kaiserhof, Vienna during the time of Leopold II” (it actually encompasses fifths of emperors), this set may provide more about Hapsburgian entertainment than you will ever want to know. Taken in large chunks, it becomes inexpressibly tedious, but heard selectively it will demonstrate the variety of instrumental color at the command of Johann Heinrich Schmelzer, who served at the Vienna court for thirty years (commencing in 1649), and the contrapuntal skill of Johann Joseph Fux. whose activities tell for the most part into the reign of Charles VI.

Schmelzer goes in for a great amount of individual work for each of his instrumentalists, which from the modern listener’s point of view is all to the good: you will hear some laboriously earnest solo excursions by trumpet and trombone (the first Sonata a 3 listed above), by bassoon and trumpet (Sonata a 5), and showers of scales for strings in the rather curious Sonata IV. The uphill task in appreciating all this, from my own point of view, is the short-breathed nature of individual phrases, so often tossed predictably from one instrument to another. Harmonicourt’s written commentary about each piece is, in fact, often more enticing than the piece itself. If you happen to be a baroque nut, all well and good. Otherwise, a little goes a long way.

Fux, whose famous Gradua ad Parnassum made his name as a contrapuntist for all ages, provides some refreshment in the Rondeau with surprising independence on the part of the bassoon, and the Sonata a 4, where the astringent sonority and the clarity of contrapuntal texture are a challenge to the ear. The sixteen-movement suite Serenade a 8 is mostly baroque wallpaper.

The Harmonicourt players tend to sound stodgy in most of the works featuring brass and woodwind solos, but the fault is probably not entirely theirs: the sixteenth-century instruments do not have the flexibility and facility of the modern counterparts: the going is rough and sounds it. The string playing is much smoother, and the solo violin in Schmelzer’s Sonata a 3 for violin, viola, and gamb is especially good. On the whole, a set primarily for the dedicated. S.F.

Shostakovich: Symphony No. 14, Op. 135

Poulenc: Concerto, soprano, Estelle Warsama, Philadelphia Orchestra, Eugene Ormandy, cond. RCA Red Seal LSC 3206, $5.98.

If there is one word that can be used to characterize Shostakovich’s Fourteenth Symphony, it is “poetic.” Where in some of his other symphonies Shostakovich creates a novel-like movement, sacrificing certain immediate details to a broad, over-all momentum (a technique the composer’s detractors see as a major flaw), in the Fourteenth, as in a poem, every detail is of utmost importance. Each of the symphony’s eleven, songlike movements forms a whole individual, lyric entity which from the modern listener’s point of view is all to the good: you will hear some laboriously earnest solo excursions by trumpet and trombone (the first Sonata a 3 listed above), by bassoon and trumpet (Sonata a 5), and showers of scales for strings in the rather curious Sonata IV. The uphill task in appreciating all this, from my own point of view, is the short-breathed nature of individual phrases, so often tossed predictably from one instrument to another. Harmonicourt’s written commentary about each piece is, in fact, often more enticing than the piece itself. If you happen to be a baroque nut, all well and good. Otherwise, a little goes a long way.

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Chamber Orchestra on Melodiya/Angel. I was immediately struck by the un-Russianness of the Ormandy performance, a quality which has both its strengths and its drawbacks. On the one hand, neither Phyllis Curtin nor Simon Estes has the somewhat cavernous vocal quality characteristic of so many Slavic singers. On the other hand, Phyllis Curtin, in particular, is beautifully expressive, much more so than her Russian counterpart (Margarita Miroshnikova). I have rarely heard anything as chilling as the climactic outcry attained by both Miss Curtin and the orchestra in the fourth movement (at the verse: "The third is tearing my mouth apart with its roots"), and I could mention any number of nuances, both in the texts and the music, that are admirably communicated by Miss Curtin's limpid voice.

Furthermore, Ormandy leads a controlled and yet warm performance that offers an interesting foil to the much more headstrong Russian version. I particularly like Ormandy's handling of the fourth and fifth movements, although he does have a tendency to emphasize the right things in the wrong places—his deliberate tempo in the second movement (Malaguena) seems totally inappropriate, while his heavy-handed treatment of the fourth movement (O Delvig, Delvig) is hardly suited to the elegiac character of this part of the symphony. Furthermore, the frenzy that Barshai is able to work up with his forces on occasion is often much more suited to the more neurotic aspects of Shostakovich's style. As for the playing, the Moscow Chamber Orchestra, surprisingly enough, comes off a strong first to the Philadelphia Orchestra's highly touted string players, who are guilty of more than one annoying slip in this recording.

The sound on the Ormandy release is marginally better than that of the Barshai. The stereo effect is also more extreme than the more closely mixed Barshai disc, thus allowing for an appropriately dramatic separation of the voices. The voices, in the third (Lorelei) movement for instance. Perhaps for reasons of continuity in the taping the voices, which are more closely placed at left-right extremes for certain of the solo movements, while they return to the middle for others.

At any rate the personal, anguished intimacy of Shostakovich's Fourteenth makes it an ideal work for phonographic listening. If I had to choose between the Barshai and the Ormandy interpretations, I would take the former. But frankly, I would not want to be without either one. A loud bravo, by the way, for the macabre and thoroughly apropos cover art by Ted Coconis.

R.S.B.


To the proliferation of Petrushkas there is, it seems, no end—and as I write these words Pierre Boulez is at work with the New York Philharmonic recording the 1911 version. If the results are anything like the concert performances that preceded it, the Boulez version should be worth waiting for, which is more than I can say on behalf of either of the current entries: both are efficient, moderately
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well played, and unconvincingly recorded. The Leinsdorf has some notably poor balances despite the Phase 4 multikine techniques, while the Bernstein is noisy and without perspective: one need only compare the sound and playing on the bonus Firebird to see that neither Columbia nor the Philharmonic are operating these days at the level of more than a decade ago (this Firebird is a reissue from Columbia MS 6014, where it was coupled with Tchaikovsky's Romeo and Juliet). As for the side devoted to Bernstein discussing Stravinsky, it is a mostly folksy, occasionally vulgar narrative of the plot of Petrushka, with musical illustrations—and does Mr. Bernstein, of all people, not yet know the difference between atonal, twelve-tone, and serial?

The best buy in the Stravinsky ballet category is still the composer himself—you can get Firebird (complete ballet), Petrushka (complete 1947 score), and The Rite of Spring in Columbia D35705 for $11.98—and if you must have the richer 1911 version of Petrushka, wait for Boulez.

Both of these recordings come in double-fold jackets, but all of the extra space thus made available is devoted to photos of puppets. The London notes are ungrammatical and downright inaccurate: "the piano... in the 1911 score plays very little after the Russian Dance." What, then, is that instrument I hear throughout the second scene? Since the notes are signed by the "Recording Director" perhaps it's a wonder that one can hear anything at all.

D.H.


Bernstein's reading of this symphony is quite different in many respects from that of Michael Tilson Thomas who so favorably impressed me recently [July 1971]. This is one of Bernstein's best performances, full of dynamic energy and completely characteristic of his unique musicianship. My impressions are best summarized by noting that this is a basically symphonic approach with strong emphasis on the dramatic rhetoric implicit in the score.

Thomas, on the other hand, projects the music with a fluid lyricism and balletic grace without searching out the rather slight foreshadowings of the Tchaikovsky of the last three symphonies. The other major difference between the two records lies in the radically opposed approaches of the recording producers, with the DGG recording of the Boston Symphony offering, to my ears at least, a more truly orchestral sound. To be sure, one does not hear the instrumental detail—solo or section—with such overwhelming clarity as on the Columbia/New York Philharmonic disc, but the Boston sounds more like a live orchestra than a phonographic conception. Within this technical framework, the Boston Symphony plays with a more beautifully blended sound and with an inherently lighter and more delicate tone, especially in the case of the strings which are wonderfully warm and translucent here. In the second movement of the symphony one can relish the superb oboe playing of the Gunberg brothers—Ralph in Boston and Harold in New York. Final choice rests on two factors—the different approaches of the two conductors and the contrasting recording techniques employed. Both musical approaches are realized to their full extent, and each recording technique will have its own adherents.

P.H.
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VAUGHAN WILLIAMS: Symphony No. 4, in F minor; Concerto Accademico for Violin and String Orchestra, in D minor. James Buswell, violin (in the concerto); London Symphony, André Previn, cond. RCA Victor LSC 3178, $5.95.

These two works go well together. The Concerto Accademico is one of Vaughan Williams' shorter, lighter pieces and the Fourth Symphony is the most strenuous, dramatic, even violent work that he ever produced: but both are tributes to Bach, the concerto in its texture, the symphony in that a major element of its towering fabric is a four-note motif clearly patterned after the B-A-C-H theme in The Art of Fugue.

The concerto dates from the early Twenties, when everybody was writing neobaroque pieces; in his Essays in Musical Analysis Sir Donald Francis Tovey does not consider it among concertos at all but deals with it in a section called "Orchestral Polyphony" along with concertos by Bach and Handel themselves. Be that as it may, this brief, pointed, vigorous score is full of modal and folky tunes in the best Vaughan Williams tradition and affords soloist and orchestra alike ample opportunity for transparent, unemotional, straightforward virtuosity of a most refreshing kind. Hindemith, Copland, and other theorists of the Twenties wrote at length about the need of the composer to level with his audience: Vaughan Williams here suggests (and both Buswell and Previn understand him perfectly) that the performer had a similar need, and that Buswell and Previn understand him perfectly. This is the only recording of the Concerto Accademico now in the American lists, but it is difficult to imagine why there ought to be another.

Previn's performance of the symphony competes on discs with recent versions by Leonard Bernstein and Sir Adrian Boult. Bernstein's has more drive and climactic impact; Boult's is more broadly Olympian. But Previn's recording, with the Royal Opera House, Covent Garden, Antal Dorati, cond., is a bit too turgid and drawn out early in the symphony in that a major element of its towering fabric is a four-note motif clearly patterned after the B-A-C-H theme in The Art of Fugue.

Rysanek and London made a specialty of this opera at the Met and at Böhrte during the Sixties. Their recording is a fine memento of the occasion—it is, in fact, the choice top-price version and easily bests both rival Angel editions.

Of course the discs can only hint at the theatrical electricity that these two singers generated in the house. The sheer physical presence of Rysanek's obsessed Senta and London's grim Dutchman invariably made an exciting impact, and when all went well vocally it added up to a thrilling operatic experience. The Ry-


recitals and miscellany


In these twilight years of his long and tremendously productive career, E. Power Biggs remains a thrillingly entertaining, lucid, and imaginative performer. Occasionally we are aware that he is now having some technical difficulties, but a more noticeable feature of his recent recording activity is his avoidance of that part of the repertory where the difficulties would be most apparent. These two most recent releases are good cases in point, of a superb musician turning to literature that is almost invariably ignored by artists who must build their careers by concentrating entirely on the "big" pieces.

If you're in a relaxed, unhurried mood, I'm sure you'll find "The Biggs Bach Book," an utterly charming aid in whiling away an hour or so. As a point of departure Biggs has taken the Anna Magdalena Bach Notebook, a kind of Bach family musical diary into which members of the family and friends entered their favorite songs and dances. On Side 1 Biggs plays eleven of these dances, an aria (Bist du bei mir), and two four-voice chorales, plus a gigue from the Wilhelm Friedemann Bach Little Clavier Book. His energetic performances are just as charming and light-hearted as the music itself. The eleven dances are played on Biggs's own Flentrop in Cambridge, Massachusetts, perhaps the most beautiful organ in America today. Everything else is played on the Andreas Silbermann organ in Arlesheim, familiar from his earlier "Historic Organs of Switzerland" record and
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from Lionel Rogg's Bach records formerly available on Epic. If we ignore its unsteady wind, it is too an attractive instrument.

Side 2 continues in exactly the same mood, extending the Anna Magdalena Bach Notebook, as it were, with organ transcriptions of live-all-time favorite cantata movements (one done by Bach) plus a miscellaneous setting of Ein' feste Burg. If we were to insist on an effortlessly accurate performance of the Schübler chorale, "Hachet auf, or of the movement from Cantata No. 79, Gott, der Herr, ist Sorn und Schild, we should have to look elsewhere—Biggs just isn't getting over the keys as easily as he once did. But no matter.

The right spirit is here as it is on all of Biggs's records, and all in all it amounts to a treasureable collection of little gems. I am reminded of the young bride-to-be who approached her church organist and announced she had decided she wanted her wedding "all in Bach but not heavy Bach," but now light Bach." I am forwarding a copy of this record to that organist and recommend it especially to brides and/or organists who find themselves in a similar situation.

I am afraid one would have to be a pretty ardent Angliophile, though, to find much of interest in the "Historic Organs of England," the latest installment of Biggs's historic organ series. The six old organs are really terribly dull instruments and much of the period English music is of the sort found in books for first-year piano students (none of these organs seems to have any pedals at all). Actually we hear very little about historic English organs and practically no English organ music besides Handel's is very well known. This record, then, does help fill in that gap and at the same time sets our minds at rest with the realization that we haven't been missing a thing.

Side 1 presents two Father Bernard Smith organs—the one in Adlington Hall in Cheshire is thought to have been built around 1670 and claims to be the oldest of original English organs. Handel himself was a visitor at Adlington, and undoubtedly entertained his hosts on this relatively large two-manual instrument with fourteen stops. The other (a one-manual instrument with divided registers) is now in the chapel of Staunton Harold in Leicestershire and is even more hokey and flat sounding.

Side 2 is more diverse, opening with one piece on a very small Father Smith organ owned by the English organ builder Noel Mander. I would guess Mr. Mander has done some tonal work on the instrument, because it offers the most attractively bright sounds on the disc. Next, a Mander-built replica of an ancient relic buzzes vigorously for us and is followed by John Snetzler organ built in 1769 and now relocated in the Church St. Andrew-by-the-Wardrobe. Two John Stanley pieces are cautiously played on an instrument at Danson Mansion in Kent built by George England in 1776, and some inconsequential Harandel dances are played on the so-called Handel organ at the Great Paddocking, on which Biggs has already recorded extensively, and which remains utterly without vitality or distinction.

Perhaps it is unfair of me to dismiss these organs and the music so completely, but when one considers who was active on the continent at the same time (Schütz, Muller, Buxtehude, and Bach), we see just what a meager contribution the English made.


These four string quartets were the winning compositions in the First Annual Composers String Quartet Composition Contest, sponsored by the New England Conservatory in conjunction with the Composers String Quartet. In addition to the present recording, two of the works (the Pollock and the Thimmig) were selected for publication by E. C. Schirmer and distributed by the New England Conservatory of Music. These works are remarkably impressive in their seriousness and maturity, despite the fact that the oldest of the composers, all American-born, is now only twenty-eight; and all of the pieces were written some three or four years ago. There are other common points: each work is roughly ten minutes long, and with the exception of the Thimmig, each is in one movement (the Pollock, despite its title, is essentially one unified gesture). Finally, all belong to that category of new music which, despite the use of a nontonal pitch language, still works within conventional notions of phrase structure and development. Some are extended in some cases (particularly in the Griffith One String Quartet) nearly to the breaking point.

Youngest of the composers is Robert Pollock, whose Movement and Variations was written in 1967 when he was only twenty-one. Although there are certain indications that this is still a student work—particularly a tendency to overuse rather obvious string devices (e.g., tremolo), it is a work of considerable technical subtlety and emotional warmth, which already reveals a strong musical personality. Leslie Thimmig's Seven Profiles consists of seven miniature pieces, each strongly articulated as to character and associated with a particular compositional technique. Despite its fragmentary structure, it is a work which makes a strong overall impression. George Edwards' String Quartet differs from the others in that it consists of one continuously unfolding musical idea that spans the entire movement. Its lack of textural variety is compensated for by its long, flowing lines and continuous structure. Finally, Peter Griffith's One String Quartet is the most dramatic of the group and features sudden, sharply defined contrasts. Sections of great density, at times reminiscent of Xenakis' 'global' textures, are played off against cadenza-like solo passages. This is a solid group of works that speak well for the present state of musical education in the country.

Considering the usual level of performance of student compositions, the Composers Quartet turns in surprisingly finished accounts of the pieces. This quartet is unquestionably one of the few really excellent ensembles for the performance of new music, and the group, along with CRI and E.C. Schirmer, should be warmly thanked for furthering the cause of serious new music in this three-way project.
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Eden and Tamir are probably the slickest duo-piano team I have ever heard: their togetherness verges on the uncanny. With the subtly gauged rubatos and intricate tonal balance and blend among their playing, the music sounds as if performed by perfectionists. For all the cultivation, however, the playing remains singing and very musical, without the hardness and glitter that so often blight duo pianism. The Schumann études, originally composed for pedal piano and unfortunately rarely heard in any form since that instrument’s obsolescence, are beautifully played in the excellent Debussy transcriptions. The Schubert is tender, gracious simplicity itself. Here, the Brahms waltzes (his own arrangement of some of the piano solo originals) are interpreted with freedom and an aptly vigorous bass line. The Rachmaninoff excerpts almost make one regret that the whole suite wasn’t performed, and the Weinberger (another composer transcription) sounds remarkably clear-textured when reduced to the relative monochrome of two keyboards. Only the Arensky, Kachaturian, and Poullenc offer any cause for disappointment: the Khachaturian, because it is a tracy piece, the Arensky because the reading lacks the ease and flow of the unforgettable old Harold Bauer/Ossip Gabrilowitsch version, the Poullenc because the present, overflurorous, underenergized treatment misses the fun and swinging rhythm this charmer must have. Superb, suave piano reproduction. H.G.


King "Sings the Falcon Scene from Die Frau ohne Schatten" and sings it very well, with a ringing voice that fits strongly in this Siegfried-like role. The aria is very noisy and powerful, but Gabrilowitsch does not make its best effect as an isolated showpiece; it seems to belong as a launching-pad, the preceding material of Act II. However, if you want the thing alone, it is as well done here as anywhere else in the catalogue.

There follows not anything you could dignify with the title of an 'operatic recital' or whatever, but simply an ill-assorted hodge-podge of matter from all over the German and Italian repertoire. The blinding revelation of Parsifal as he divines the cause of Amfortas’ agony is blithely followed by Stolzing’s Trial Song. Suddenly we are switched to Otello in his death throes, then quickly on to Falke, Des Grieux, and Lorca. Most of this is sung quite decently, though Mr. King has a way of sounding detached from his material at times, as though he were being programmed from headquarters. The fault in this case is compounded by what may laughingly be called "program-building." There is nothing wrong with the orchestra or the recorded sound.


Here is one of the pleasantest guitar recitals to come along in many moons—a splendid introduction to the Abreu brothers, a pair of Brazilian siblings in their early twenties who are formidable adept and play music with joy, precision, and a virtuosic gift for inter-meshing delicate instrumental lines. Each is in total control of color and articulation, yet the control never gets in the way of the free-flowing impetus—the main ingredient of which is a built-in rhythmic pulse, evident from the beginning of Side 1 with the two seventeenth-century selections. Among the highligths is the Scarlatti transcription, pure and bell-like in tone; and Rodrigo’s "Concierto Andaluz" is one of the best traditional guitar works to come out of the past decade—both sonorous and poignant in timbre, with discreet dissonances and much effective writing for the instruments. The sonata by Christian Gottlieb Scheidler (c. 1752-1839) sounds as if the composer came home to write it after attending a performance of Don Giovanni—the second movement takes as its point of departure: "Là ci darem la mano," with no apologies. The recording as a whole makes me much regret missing the Abreu brothers on their debut North American tour. Next time. S.F.


With the exception of the short Debussy Piece, none of the works on this attractive recital is currently in the concert repertory. The Bax Sonata is a recording premiere. To me (and perhaps my biases are showing), the most successful work here is the Honegger Sonatine. It is a lean, understated piece that moves from a highly contrapuntal, neoclassical style in the first movement (which is also highlighted by some haunting, interspersed harmonies of Honegger) to the melodic and rhythm language of jazz in the last. The Bernstein Sonata likewise offers a fascinating array of rhythmic and instrumental effects, although it would perhaps be a more welcome guest on some vital concert bills, since it does marvelous imitations of Paul Hindemith (in the opening measures) and of Aaron Copland (later on). By
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way of contrast, the Milhaud \textit{Sonatine} is completely characteristic of its composer, with its jaunty rhythms and melodies, its big blocks of contrary motion, polytonal chords, and a lovely, \textit{berceuse}-like second movement. Unlike Honegger, however, Milhaud seems to have been reluctant to thin out the piano part when the clarinet is playing, and the result is sometimes a bit heavy-handed. The Debussy \textit{Petite piece}, an exquisite, dancelike vignette, would alone be worth the price of the record. The Bax sonata, on the other hand, offers no such satisfaction. Whereas the other works on this release manifest a tightness of structure and texture perfectly suited to the idiom, Bax creates a diffuse architecture in which the respective timbres of the piano and the clarinet seem to have been used rather gratuitously. There are a couple of nice melodies (the second of which seems to have been lifted from Chausson's \textit{Symphony in B flat}) in the first movement; but even these tend to get lost in developmental rambling that communicates no sense of inevitability.

The over-all efforts of Stanley Drucker and Leonid Hambro—and of Odyssey's engineers—are admirable. One might wish for a bit more dynamic variety here and there, particularly since Drucker seems to remain at a mezzo-forte level a good deal of the time, and the clarinet tone is not as full-bodied as one might like. And the Honegger \textit{Sonatine} has a more vital, if less pensive, interpretation on an old London release with Ulysse and Jacques Delecluse. Nonetheless, this disc reveals the enticing combined sonorities of the clarinet and piano in excellently balanced stereo sound, and it contains two gems—the Honegger and the Debussy—that should be in everybody's collection.

R.S.B.


He does not bleat. He sneers not, neither does he sob. He has a sense of style. He has taste. He has, what's more, a ring at the top of his voice that dilates the pupils: yours, as well as his. If you are unaccustomed to such a constellation of virtues, especially in this voice category, then meet Luciano Pavarotti. He is all tenor and a yard wide. (Alas!) You may already have met him on records; for he sings the tenor roles in London's \textit{Daughter of the Regiment} and EMI's \textit{L'Amico Fritz}—both charmingly, to my taste. And now he comes packaged in this rousing and generally excellent recital.

Mr. Pavarotti would be less than human if he failed to exploit his own principal asset: that clarion top, and who would want it otherwise? It blazes out firmly in the \textit{William Tell} aria and in the \textit{Trovatore} scene. (These are no snippets, but ten-minute chunks each.) Other qualities

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show up in some of the gentler music, especially the Donizetti and the Cilea. This last song is known as Fedorico's lament and has often been slurred to death by other Italian tenors. Pavarotti's restraint and his clean line are admirable.

Pass indulgently over Faust's final aria from Mejstřejové, for it is taken so slowly that it falls apart. Condomone has a few inelegancies in Bohème aria and a "square" touch here and there in the Bellini. He may not be as subtle as Tito Schipa, but be grateful for the splendid tenor we are given.

Finally compare the work of Maestros Rescigno and Magiera, so instructively juxtaposed here. The first knows his stuff and steers the ship; the second conforms entirely to what he thinks the singer wants—or to what the singer thinks he wants. No prize awarded for guessing which system works better. G.M.

**Lawrence Tibbett: "Recital, Vol. II"**

Lawrence Tibbett, baritone, various accompaniments. Rocco 5324, $5.98 (mono only).

Lawrence Tibbett often sang on radio broadcasts in the '30s and the selections on this disc are undoubtedly airchecks from that period. We have here is Tibbett the showman, exercising the charm, vitality, and vibrant baritone that made him a "star" even to non-operagoers. He definitely had a way with pop material—there's no question that an operatic voice is at work, but his easy delivery, down-to-earth sincerity, and sheer vocal quality make these performances of Tommy Larr, I Dream of Jeannie, Drink to Me Only with Thine Eyes, and Through the Years more than mere curiosities. Also included is The Rogue Song, first heard in Tibbett's 1930 film of the same name, with a spoken introduction by the singer.

Ironically, the operatic part of this disc is less representative: first Tibbett ventures into tenor territory with "Vesti la giubba" (down a tone) and then helps himself to the bass's "Le Veau d'or" from Faust (up a half tone if the dubbing is correct). The latter scene actually begins with Wagner's truncated "Song of the Ruler and Comrade" from the latter scene, and continues up to the Sword Chorale with Tibbett taking all the roles except Siebel. Both excerpts are sung to the hilt, but the baritonalavt flavor sounds decidedly out of place. Side 2 seems to be a half-hour condensation for radio of Louis Rueben's Emperor Jones, an opera that Tibbett managed to sustain at the Met for two seasons in 1933-35. Mozart's The Marriage of Figaro is spoken against a weak musical background—even O'Neill's dialogue is pretty hard to take nowadays. One listens primarily for Tibbett's skillful acting as he builds tensions by ingeniously maneuvering his voice from speech through half-song to full vocal outbreak. It's quite a tour de force. For a more typical and consistent view of this singer though, try Rococo 5266 or RCA Victrola 1340.

**Leonard Warren: "The Great Hits of a Great Baritone"**

Leonard Warren, baritone; various orchestras. Vivaldi, $2.98 (the soprano excerpts from Richmond SRS 64503, 1956, the Ariadne excerpts from RCA Victor LDS 6152, 1960).

It will be interesting to see if the "extra mileage" principle that produced this disc succeeds or not. Rysanek is unlikely to attract a new audience through repackaging previously released recordings, but she admirers undoubtedly already have the two complete sets that yielded the material for this record. As a result, the disc will probably have few takers and those who espouse the Rysanek-just-doesn't-sell-records theory will have scored another point.

Whatever her vocal flaws, Rysanek can be a brilliant exponent of Strauss's soprano roles. She proves the point time and again on the present disc and could surely do so in a freshly recorded recital. I suppose a complete Rysanek Aegyptische Helena or Liebe der Danae would be too much to hope for, but the final scene of the latter and monologues from the former could make a thrilling disc. Who knows, it might even sell.

**Leo P. G. D.**

**Leonard Warren: "The Great Hits of a Great Baritone"**

Leonard Warren, baritone; various orchestras. Rococo 5324, $5.98 (mono only).

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Warren was only a few weeks shy of his fortieth birthday when he collapsed and died on the stage of the Met during a performance of La Forza del destino on March 4, 1960. His rich, powerful baritone showed a few frayed edges that last year—even this sturdy instrument had trouble sustaining itself over two decades of steady singing and Warren was never one to stint.

All the better, then, that this collection concentrates on his earliest recordings, and as such the disc makes a fine companion to Victor's last Warren reissue (LM 2453) which contained material recorded in the Fifties. Aside from the Orello "Credo" and Tosca "Te Deum" (the latter clumsily excerpted from the 1957 complete set), all the items here date from the Forties and show the singer reveling in the easy production of a fat, warm, steady tone and a brilliant, ringing top. Virtually every selection is delivered in sheer vocal terms. Warren grew slowly as an interpreter, and his Verdi singing in this collection tends to be rather neutral while the French arias and Figaro's showpiece are unidiomatic to say the least. The voice is the thing though, and Victrola's reissue captures all of its natural beauty and robust vibrancy.

P.G.D.


Felicia Weathers, soprano; Munich Radio Orchestra, Kurt Eichhorn cond. Telefunken SLT 43122, $5.95.

Not a wise venture for this trim and talented lyric soprano who possesses a voice of winning clarity and timbre but only moderate power. What is she doing shopping over in the Matron's Department where everything is three sizes too big for her?

The anonymous writer of the sleeve notes points out (and with a sense of satisfaction yet) that five of the nine arias are from roles that Miss Weathers doesn't sing on stage. Nor should she sing them on disc, for she has neither the thrust nor the agility they need. There is a rudimentary trill, shown off in the Vespri piece and again in "Ernani, involami" but the climaxes and most of the dramatic coloratura music gets faked or approximated. There is little sense of the word content in any of the songs and a general air of discomfort in most of them.

As might be expected, Miss Weathers does best in the two Puccini arias and the closing Cilea. Here she is on home ground, with no discomfort whatever and a chance to display the elegant sonorities she commands. The Chenier narration is also managed well, except for one moment above the stave. Mr. Eichhorn's work is discreet.

G.M.

"THE WONDER OF THE AGE: MISTER EDISON'S NEW TALKING MACHINE." The story of sound recording 1877-1925 compiled from contemporary writings and illustrated by archive recordings. For a feature review of this historic recording, see page 84.

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An enjoyable disc. Neither orchestra may be a world-beater, but Dorati achieves a pair of colorful performances nonetheless, fully of vigor and vitality. The Second Suite is especially well done, easily superior to its Qualiton rival, and the Dance Suite has all the requisite thrust and rhythmic definition. The sonatas in both works are still remarkably vivid.

H.G.

These West Coast musicians give the Grieg a vigorous, unaffected, idiomatic treatment. The playing is assertive and rhythmic, full of resilience, and with a welcome refusal to dwell unduly upon the lyrical second themes in order to give them more “significance” than they deserve. Perhaps the version of this piece by Rostropovich and Richter (on a semiprivate Parnassus issue) is conceived on a grander, more individualized scale than this, but in many ways the simple elementalism of Reese and Linzley seems more appropriate. In the Schumann, the playing remains expert and satisfactory, but I find tempos a bit dragged out and the phrasing somewhat indulgent. Actually, I feel that the cool, flowing sound of the clarinet is more poignant in this music (Schumann specified either alternative). Sharply etched, resonant sound and a good balance.

H.G.

If you think Aldo Ciccolini must be getting bored with Satie after having gone through four previous releases of the composer's inimitable piano music, then listen to his lulling interpretation of the diaphanous Nocturne No. 4 (which is marked mystérieux et tendre), with its strange and haunting progressions of open fifths. Not only is this a side of Satie one rarely hears, but it offers further proof of Ciccolini's extraordinary ability to fathom Satie's many styles. After the nocturne, try the marvelous bit of vintage Satie, Jack in the Box. Or the primitive choral progressions of the Prelude de la Porte héroïque du ciel. Or the fascinating collection of bits and pieces assembled from various manuscripts by Robert Caby in the Carnet d'esquisses et de croquis. Few superfine remain to be added to what has already been said about the Ciccolini/Satie recordings, save that the engineering on the present disc is by far the best, in spite of some extra hiss, of the five volumes. Satie always has something different to say, even if it is in a tiny nuance, and nobody says it for him better than Ciccolini.

R.S.B.

Not one of Solti's more persuasive early stereo efforts. The performance is nervous and charmless, the French orchestra sounds tonally scrawny, and the sonics are claustrophobic. Since there is no other budget version of this symphony, Abbado's excellently played edition on DGG remains the choice.

P.G.D.

The only things worth listening to on this release are the sumptuously recorded Poulenc-orchestrated Devant les posthu- ments. But since these are already available on the excellent Abravanel/Vanguard "Homage to Satie," there is certainly no good reason to buy this disc. Camarata's "orchestrations" of the other pieces are irretrievably mushy, while his cinematic collage, "Through a Looking Glass," grates in every possible way. As for the bloated reworking of Parade, Camarata justifies this in a series of "when-I-hear-this-it-makes-me-think-of" liner notes. What Camarata probably heard was ringing cash registers taking in money from people naive enough to think this record is "mod." It is even less as a demonstration disc, since most of the extraneous noises (from 100 men reciting the Lord's Prayer to an atom bomb . . . an atom bomb?) sound as if they were taken from 78-rpm sound-effects records. Even the "rock" insert is strictly pref-Bid Haley.

R.S.B.
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BLOOD, SWEAT & TEARS: B, S & T 4. David Clayton-Thomas, lead vocals and guitar; Lewis Soloff, trumpet, flugelhorn, and piccolo trumpet; Chuck Winfield, trumpet and flugelhorn; Dave Bergeron, trombone; tuba, bass trombone, baritone horn, and acoustic bass; Fred Lipsius, alto saxophone, piano, organ, and clarinet; Dick Halligan, organ, trombone, piano, and flute; Steve Katz, guitar, harmonica, mandolin, and vocals; Jim Fielder, bass and guitar; Bobby Colomby, drums and percussion; Don Heckman, clarinet and bass clarinet; Michael Smith, congas; Joni Dean, tenor saxophone; David Clayton-Thomas, lead vocals and rhythm accompaniment; Peter Stampfel, putting out scruffy little albums as the Holy Modal Rounders. The Holy Modal Rounders have been around for ages, in the persons of Steve Weber and Mark Marklin each write pleasant songs, especially as showcases for the band, and when the several vocalists are singing together they get a very nice sound. This is a good touring set; if they hold together, the second release should be terrific.

The Holy Modal Rounders: Good Taste Is Timeless. Folk-rock sextet; Boobs a Lot: Melinda; Melinda, guitar; Curtis Fowl: Rare Solo: Six more. Columbia KC 30590, $6.98. Tape: M 86447. $6.95. ** M 56447. $6.95.

Three albums by new groups, and one that might as well be called new. Brave Belt is headed by Randy Bachman, former lead guitarist of the Guess Who. As with his former group, this band's music is influenced by West Coast groups--the Byrds this time instead of the Doors and the Airplane—with a good mixture of Canadian gentleness and cool. All the songs, by Bachman or vocalist/key- boardist Clad Allan, are marked by solid melodies and lyrics that rework a lot of the favorite pop clichés (/ Wouldn't Trade My Wife, Take Your Own: Cemetery Hill; Crime and Misfortunes: Black Betty, Mama, on My Way; six more. Columbia C 30476, $5.98.

The Holy Modal Rounders have been around for ages. In the persons of Steve Weber and Peter Stampfel, putting out scruffy little albums of homemade folk music; but since this is their first outing with this personnel and on this label, and with a format that they clearly imagine has mass appeal, this effort deserves a spot among first albums. Which is about all it deserves. The disingenuous attempt to disarm criticism with the title fails to mask the professionalism with which the dastardly deed is done. The Holy Modal Rounders are more than a schtick, and this album shows it. It is an exceptional recording.

These include several uptempo ravers—songs ten are originals by hand--members. of the twelve over-all imagination and drive. Of the twelve This is undoubtedly one of BST's better efforts. This is one of BST's better efforts.

122.

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Arthur Fiedler and his Boston Pops are here again in exhilarating form.
restatement and elaboration on the theme dealt with by Phil Ochs in his "Chords of Fame"—the drive toward stardom and its attendant problems.

London Wainwright III is the latest in the fashionably horded school of contemporary folk song. His concerts are marked by extreme, facial contortions, tongue-lolling, and by a string of gaggles and odd smiles, all of which play off well against the desolate, boredom world he sees. This exceptional LP should be heard, listened to closely, and appreciated for its extremely good word slinging.

Rod Stewart: Every Picture Tells a Story. Rod Stewart, vocals, rhythm accompaniment. Reason to Believe, Man-

dol Winch: That's All Right Mama: Maggie May, tour more. Mercury SGM 1-609, $5.98. Tape. • MCB 1-609, $6.95; • MCRF 1-609, $6.95. • STEVIE WINWOOD: Winwood. Stevie Winwood, vocals, guitars, and keyboards, rhythm section. Crossroads; I'm a Man; Paper Sun; Dealer; Sea of Joy; Keep on Running; fifteen more. United Artists UAS 9950, $5.98 (two discs). Tape. • 04002, $7.98. • C 70002, $7.98.

In differing ways, these two albums attest to rock's continuing vitality. Rod Stewart's third album, "Every Picture Tells a Story," demonstrates once again that the longeurs with which we have been afflicted of late are not the fault of the form, but seem rather from too little talent or effort on the part of most people making records. And "Winwood" offers a rare opportunity to examine closely the whole career of an important rock exponent.

Stevie Winwood was only eighteen when he burst upon the scene in 1966 as lead singer and guitarist of the Spencer Davis Group. Keep on Running, Somebody Help Me, Gimme Some Lovin', and I'm a Man, with Winwood's tense, blues-tinged vocals and funky instrumental work, gave AM radio in the period some vital. Each of the group was cohesive, the much underrated Traffic, and the much overrated Blind Faith. He then made short stays in Ginger Baker's Air Force and as one of Joe Cocker's friends, and put in an appearance on record with Leon Russell before turning up with the reconstituted Traffic. All phases of his career are represented on this two-record set, some much more than others. Most of the material, quite rightly, comes from the Spencer Davis and Traffic days. To one who has never been an especial Winwood fan—(I have a voice a good grating over the long haul—the album came as a pleasant surprise. By selecting (for the most part) his best efforts, sometimes from otherwise dreary albums, the producers have done the artist and the audience a considerable favor.

By now one is at a loss for words to describe Rod Stewart. His skills as a producer, and taste as a performer, have become so predictable that it would be news if he had made a bad album instead of another good one. Guitarist Ron Wood is on board again, and as usual Stewart's other sidemen are impeccable. The material includes three originals, a Motown tune, some folk, some standard, some odd. The most of the material, quite right.

FREDDIE KING: Getting Ready. Freddie King, vocals and guitar, rhythm accompaniment. Same Old Blues, Dust My Broom, Going Down. Tore Down. Five Long Years; five more. Shelter SHE 8905, $5.98.

MEMPHIS SLIM: Blue Meemphis. Memphis Slim, vocals and piano, rhythm accompaniment. Chicago. Handyman. Bopin' and Bluesin'; Windmill. Wind; That's All Right Mama; Maggie May; four more. Mercury SGM 1-609, $5.98. Tape. • MC1 1-609, $6.95; • MCRF 1-609, $6.95.

I have never been much of an Albert King fan, but even I was surprised at how "Getting Ready" by Freddie King (usually considered an easy third to B.B. and Albert) topped Albert's "Lovejoy." Part of Albert's problem is his uninspired vocalism, but producer and arranger (?) Don Nix has compounded the trouble. For one thing, he has had Albert do mostly Don Nix compositions—you probably didn't know he wrote Corina Corina—a pretty trie and mediocre lot, and has surrounded him with musicians who, at least on this trip, don't earn their keep.

Freddie King's album is another matter
entirely. Don Nix had a hand here too, but I suspect a minor one, since the coproducer is Leon Russell and the album is marked by the considerable care that he has taken in past production efforts. Also, despite four Don Nix tunes (two written with Russell), the material is much better, including songs by Elmore James, Big Maceo, Eddie Boyd, Bill Broonzy, and King himself. And although Freddie isn’t as accomplished a player as Albert, he is more direct and emotional, and his singing really has his heart in it. “Getting Ready” is easily Freddie King’s best LP and one of the best blues records of the year.

On “Blue Memphis,” Memphis Slim pulls off a blues autobiography, something that has very rarely, if ever, worked before. Usually such efforts are too cute and lack depth and variety, but Slim makes it all convincing verbally, and he comes up with a number of expressive melodies. Side 2 features several new compositions. mostly first-rate, including one called Chicago Seven that ironically describes the furore raised over the harassment of a few whites while the same and worse happens to black people every day. The album was recorded in England and Slim profits from the presence of such veteran British rockers as Peter Green, Chris Spedding, Duster Bennett, and John Paul Jones. Slim seems to have been up for the sessions and there is more fire here than I remember ever having heard from him. A fine and memorable album.

Randy Sparks: Hazy Sunshine. Randy Sparks, vocals and guitar, unidentified arranger, chorus, and musicians. Mountains of Glass, Gypsy Woman, Bremerton, nine more. MGM SE 4759, $4.98.

Remember Randy Sparks? He dreamed up the New Christy Minstrels during the folk boom and later sold them for an incredible amount of money.

When the naive folk period of the Fifties and early Sixties gave way to rock, Sparks had a rough time. He was comfortable writing songs about bows and ribbons, checkered shirts, and nice folks, singing them in his clear and simple tenor. The new music, ultrapersonal and aimed embarrassingly at people’s true feelings, left Randy high and dry. Through the years Sparks made an occasional album, aimed at a Kingston-Trio type of audience that was no longer there. But Randy Sparks has a tenacious kind of personality. He doesn’t like to let go. Here he is again, having done enough homework to find his way in the back door of the present market. Sort of.

A few of his songs have a certain personal depth, particularly the gentle And I Love You and Whiskey. One begins to wonder if Randy is getting interested in internalizing his music after all. But then there are the other songs, retreating to the old familiar ain’t-it-fun-fools attitude—only a surface swipe at real issues. Some performers tend to feel safer and best in their early roles, leaving experimentation to newer artists. So we hear A Song of Hope: “Don’t tell me, friends, what’s wrong with this world. Let’s make it a better place.” A most revealing line. How does one improve things if one cannot say what’s wrong? But that’s not Sparks’s department. He sees his place as revving up Hope and getting on to the next song.

It is true that Sparks has something of a new look in this album. It is largely due to the use
of a rock-oriented rhythm section. But no credit is given—neither arranger, chorus, nor musicians.

Essentially Sparks is still in the same place: his pleasant, flowy voice is still in good shape; his melodies are based on the same few folk-chord changes, his lyrics are sunny and shallow and occasionally good.

And the beat goes on. M.A.

JONI MITCHELL: Blue. Joni Mitchell, vocals, dulcimer, guitar and piano, rhythm accompaniment. All I Want; Little Green. A Case of You; seven more. Reprise MS 2038, $4.98.

Thank you. Reprise, for the bright and gentle light of Joni Mitchell. She is an artist for whom I stop everything else, turn up the stereo, and sit with album in hand in order to read the printed lyrics as she sings. Miss Mitchell's words are hard to catch. It's a minor flaw.

This is Joni Mitchell's fourth album. Once again she gives all, leaving herself no place to hide. She writes, sings, plays, with only an occasional hint of outside help. Thus the listener receives an intimate portrait. It leaves me wondering how she can do it all again next time. How will she change and how will she stay the same? Will the new balance of growth be as pleasing as the last?

Yet again Miss Mitchell has expanded without altering her essence. Her new songs are even more personal. They are also more wordy, with lyrics sprawling gracefully across the artist's singular sense of harmonics. Melodies are less important this time. The impact has more to do with the relation of thoughts to harmony and rhythm. A few of the songs, such as Little Green, sound as if they were written some time ago in a more ethereal mood.

Miss Mitchell's voice sounds even younger and more pure. At the same time, she takes more chances with it now, jumping around vocal octaves with amazing accuracy, balancing long groups of words in one breath, alternately tightening and releasing her rhythmic sense. Miss Mitchell makes extensive use of the dulcimer in this album. The instrument was made for her by a friend and she has learned to make more music with it now. Jumping around as Little Green, sound as if they were written some time ago in a more ethereal mood.

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Several new musical influences show up. James Taylor plays guitar on three tracks, and other friends make occasional backup contributions. Sneaky Pete (pedal steel guitar), Stephen Stills, and Taylor's drummer, Russ Kunkel, several tracks feature Miss Mitchell's voice and piano playing only.

Joni Mitchell's songs have gotten sadder and her music has gotten freer. While she is no more wordy, with lyrics sprawling gracefully across the artist's singular sense of harmonics. Melodies are less important this time. The impact has more to do with the relation of thoughts to harmony and rhythm. A few of the songs, such as Little Green, sound as if they were written some time ago in a more ethereal mood.

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SEPTEMBER 1971 CIRCLE 4 ON READER-SERVICE CARD
reaches the following depth of understanding: “Louie is a very normal boy—he likes sports of all kinds.”

Louie Roberts has a nice big voice and a simple, impassioned style. He has been taught such songs as “Little White Cloud That Cried” (popularized by its composer, Johnny Ray, nearly twenty years ago), “Lonely Street,” “How Great Thou Art,” and a precious thing called “A Letter to the President,” capitalizing on weepy sentiment in the manner of baby Shirley Temple.

Poor Louie Roberts. The grownups he trusts are using him to soothe their anxieties, to fix the mess they’re in with the kids. Record men wish to make a profit on the boy as well. In a few years, if Louie has any sensitivity, he will suffer a severe identity crisis and accompanying cynicism. Or he himself will retreat into a false adult world and blindly find his audience in them.

The other boy is named Heintje. The usually active promo department at MGM has fallen down on this one. Maybe they didn’t know how to sell him. At any rate, I know nothing about him and no information is given on the album. He appears to be a charming, clean-cut, and upstanding youngster, all blond hair and big smile. It is a European project. The music is pure Swiss Alps and Heintje’s singing falls nearly in line—it could easily be coming from the soundtrack of a Sonja Henie movie of the Forties.

Children are not the only dreamers. Parents condemn and punish their young for burrowing into escapes—grass, long hair, “unanswerable” questions—then turn around and lock out reality by creating, for their own selfish comfort, fantasies represented by Louie Roberts and Heintje. Since nobody is right, nobody feels good in the end, neither children nor parents.

What can parents do when they read such thoughts as these? Rush to their own defense, go deaf, have a beer, condemn this review, hotly explain points I have “deliberately ignored,” reflexively and relentlessly deny any chance of self-inquiry. Or shall they listen to their real children instead of these two little puppets?

Whose responsibility is it that the games go on, generation to generation? M.A.

JOHN BALDRY: It Ain’t Easy. John Baldry, vocals and guitar, rhythm accompaniment. Don’t Try to Lay No Boogie-Woogie on the King of Rock and Roll: Black Girl—It Ain’t Easy. Morning, Morning. Let’s Burn Down the Cornfield: Rock Me When He’s Gone: three more, Warner Brothers 1921. $3.98.

Six-foot-seven John Baldry has been a primal figure on the British blues and rock scene for over a decade. A lot of now well-known performers started in his various bands: Mick Jagger was his back-up vocalist; Charlie Watts his drummer. Rod Stewart, Elton John, Brian Auger, and Julie Driscoll also worked for him. He is successful throughout Europe, but until recently unknown in America.

His singing is coarse, and like so many of the better rock singers, derivative. His voice reaches the following depth of understanding: “Louie is a very normal boy—he likes sports of all kinds.”

Louie Roberts has a nice big voice and a simple, impassioned style. He has been taught such songs as “Little White Cloud That Cried” (popularized by its composer, Johnny Ray, nearly twenty years ago), “Lonely Street,” “How Great Thou Art,” and a precious thing called “A Letter to the President,” capitalizing on weepy sentiment in the manner of baby Shirley Temple.

Poor Louie Roberts. The grownups he trusts are using him to soothe their anxieties, to fix the mess they’re in with the kids. Record men wish to make a profit on the boy as well. In a few years, if Louie has any sensitivity, he will suffer a severe identity crisis and accompanying cynicism. Or he himself will retreat into a false adult world and blindly find his audience in them.

The other boy is named Heintje. The usually active promo department at MGM has fallen down on this one. Maybe they didn’t know how to sell him. At any rate, I know nothing about him and no information is given on the album. He appears to be a charming, clean-cut, and upstanding youngster, all blond hair and big smile. It is a European project. The music is pure Swiss Alps and Heintje’s singing falls nearly in line—it could easily be coming from the soundtrack of a Sonja Henie movie of the Forties.

Children are not the only dreamers. Parents condemn and punish their young for burrowing into escapes—grass, long hair, “unanswerable” questions—then turn around and lock out reality by creating, for their own selfish comfort, fantasies represented by Louie Roberts and Heintje. Since nobody is right, nobody feels good in the end, neither children nor parents.

What can parents do when they read such thoughts as these? Rush to their own defense, go deaf, have a beer, condemn this review, hotly explain points I have “deliberately ignored,” reflexively and relentlessly deny any chance of self-inquiry. Or shall they listen to their real children instead of these two little puppets?

Whose responsibility is it that the games go on, generation to generation? M.A.
classical gospel rock. I prefer the Stewart side; it's looser, more dynamic and sprightly, and lacks the ponderous quality that marks the John side. Boogie-Woogie is especially powerful, and throughout the LP Baldry makes good use of a soul choir, counterpointing his low, rough voice against the high, tensile choral harmony. Leadbelly's Black Girl casts Baldry in an exquisite vocal duet with Maggie Bell. Morning, Morning, the too-little appreciated song by poet and Fug Tuli Kupferberg, likewise moves well.

Baldry has been around so long one wonders if he will ever get the recognition he clearly deserves. He is a rock singer's singer, and that doesn't always add up to popularity. Also, the Ray Charles style has been done by many people (Stewart, Richie Havens, and Joe Cocker, to name three) and is hardly an unfamiliar sound.

M.J.

**jazz**

**Stan Kenton:** The Fabulous Alumni. Various Kenton bands. Rhythm Incorporated; Easy Street; Adios, eight more. The Creative World of Stan Kenton 1028, $5.50.

**Stan Kenton:** Some Women I've Known. Anita O'Day, June Christy, Chris Connor, Jerri Winters, Ann Richards, and Jean Turner, with various Kenton bands. Jeepers Creepers; Warm Blue Stream; Are You Livin' Old Man; nine more. The Creative World of Stan Kenton 1029, $5.50.

Stan Kenton, who sells all his records by mail now, has put together two survey sets that ought to warm the nostalgic cockles of Kenton fans. "Fabulous Alumni" is made up of previously unissued material from 1945 to 1956. While "Some Women," which ranges from 1944 to 1963, includes five heretofore unissued tracks. The "Alumni" set traces some of the changes in the Kenton approach over the band's most fertile eleven-year period, opening with an Anita O'Day vocal and winding up with a section of Johnny Richards' Cuban Fire Suite that was not included on Kenton's original Capitol LP. In between there are the beginnings of the big, open Kenton recording sound of the late Forties on a piece which includes a strong appearance of the marvelously muscular saxophone sound of Vido Musso, Bud Shank's flute, Frank Rosolino's trombone, and Lee Konitz' alto saxophone are featured on other cuts, along with a representation of Kenton singers—June Christy, Jerri Winters, Chris Connor, and Ann Richards, as well as Miss O'Day.

"Some Women" involves these same five singers, plus Jean Turner. Because they are lined up chronologically on both sides of the disc it is interesting to follow the persistence of a specific sound in Kenton singers (as in his trombonists) stemming from Miss O'Day, polished by Miss Christy, opened up by Miss Connor, and finally given an exotic throatiness by Miss Winters. Miss Richards breaks away from the mold to an extent but Miss Turner is the only one who manages to find a voice of a specific sound in Kenton singers (as in his trombonists) stemming from Miss O'Day, polished by Miss Christy, opened up by Miss Connor, and finally given an exotic throatiness by Miss Winters. Miss Richards breaks away from the mold to an extent but Miss Turner is the only one who manages to find a voice.
*ORIGINAL SALTY DOGS: Free Wheeling.* Lew Green, cornet; Jim Snyder, trombone; Kim Guscak, clarinet and tenor saxophone; John Cooper, piano; Bob Sundstrom, banjo and vocal; Mike Walbridge, tuba; Wayne Jones, drums. All by Myself, Creole Belle's: Wild Man Blues; seven more. GBH 58, $5.98 (GBH Records, box 294, columbia, S.C. 29402).

As the number of traditionalist jazz bands has increased, the general level of performance has steadily risen. But despite this overall upgrading, the Salty Dogs remain in a class by themselves as blithe, distinctively at-home practitioners of the traditional repertory. Man for man-front line and rhythm section—there is not a weak spot in the line-up. The rhythm section, normally the prime danger area in such groups, is one of the Salty Dogs' greatest strengths. Built around the sturdy core of Mike Walbridge's impeccable tuba, with sensitive but potent drumming by Wayne Jones and loose, precise work in banjo and piano by Bob Sundstrom and John Cooper, the group could probably get away with a front line that was simply adequate. But Lew Green, Jim Snyder, and Kim Guscak have the easy assurance and the brass exuberance that give these performances a constant lift.

Armstrong, Oliver, Noone, and Beiderbecke are the primary sources but this band treats the material as though it were all its own stuff, with none of the cringing before sacred traditions that often inhibits groups of this type. The title tune, Free Wheeling, will sound surprisingly familiar. This, according to annotator Mike Schwimmer, was Hoagy Carmichael's original title for the tune Bix Beiderbecke recorded as Riverboat Shuffle. It's typical of the Salty Dog's deadpan humor not only to steal in the original title on the label but also to emblazon it all over the album. J.S.W.

**ROY ELDREDGE: The Nifty Cat.** Roy Eldridge, trumpet and vocals; Benny Morton, trombone; Bud Johnson, tenor and soprano saxophones; Nat Pierce, piano; Tommy Bryant, bass; Oliver Jackson, drums; Jolly Hollis: Cotton: 5400 North; three more. MR 8110, $5.50 (Master Jazz Recordings, Inc., box 579, Lenox Hill Station, New York, N.Y. 10021).

Here is one of the warmest, most fulfilling small-group recordings I have heard in a long time. They may not play in jazz spots around New York so often, but because of the dispiriting conditions which exist in most clubs (graphically outlined in Bill Weilbacher's excellent liner notes), they convey far more life and immediacy on this disc—the performances are electric.

Eldridge sounds like the burning flame of thirty years ago. Bud Johnson is simply overpowering on both tenor and soprano saxophones. Benny Morton spreads out in a broad, sweeping, lyrical attack that sounds for all the world like Lawrence Brown: and the sextet is completely together—so much so, in fact, that one piece from Eldridge's big-band days with Gene Krupa (Ball of Fire) actually does convey the sound and feeling of a big band. Add to this long, building, strongly projected vocal by Roy on Winona, a blues that moves at just the right, achingly swinging tempo.

It is as though time had stood still for this marvelously seasoned team of jazzmen and each had been caught at the peak of his powers. Weilbacher, who produced the disc, deserves at least as much credit for the musicians—we have years and years of evidence of how routine such a recording session might have turned out. This collection is basic evidence that the fire and spirit of jazz still live.

J.S.W.

**in brief**

**Johnny Cash: The Man, The World, His Music.** Sun 2-176, $9.98 (two discs). A two-LP set containing much of Cash's early work, including I Forget To Remember To Forget. Goodnight Irene; Fools Hall Of Fame; and Blue Train. Not up to the recording standards of his Columbia releases, but open and funky. M.J.

**Bo Diddley: Another Dimension.** Chess CH 50001, $4.98. Tape: M 8333-50001M, $6.98; M 50001M, $6.98. Poor Bo Diddley can't get enough work to hold a band together and so is reduced to studio efforts like this one, mostly of his by white musicians like The Band, Al Kooper, Creedence, and Elton John. It's not bad, really, but not what it used to be. J.G.

**Helena Reddy: I Don't Know How To Love Him.** Capitol ST 762, $5.98. Tape: M 8XT 762, $6.98; M 8XT 762, $6.98. This is a pleasing albeit bland set by the performer of the hit song from Jesus Christ Superstar: She sings material by the likes of Graham Nash, Van Morrison, The Rascals, Leon Russell, and Tim Hardin. The best: Mac Davis' I Believe In Music. J.G.

**Pears Before Swine:** City Of Gold. Reprise S 6442, $4.98. Tape: M 86442, $6.95; M 56442, $6.95. I really intended to give Tom Rapp's group's new album a feature review last month or this, but ran out of space and time. The earlier LPs were good; but this one is the best yet. If you've never heard him/them, take my word for it: this is a terrific record. J.G.

**A Retta Franklin: Live At Fillmore West.** Atlantic SD 7205, $5.98. Tape: M 87205, $6.95; M 87205, $6.95. Aretha is joined by Ray Charles, King Curtis, and Billy Preston. It's a purely joyful noise. Ninety stars. M.A.

**Stoneground:** Warner Bros WS 1895, $4.98. Stoneground is Sal Valentino's superb new ten-person band. This group has been receiving a lot of hype but so far it lives up to every word. With seven lead singers, how could they go wrong? J.G.

**Elvis Presley:** Love Letters From Elvis.
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Dolby Cassettes Direct from London. In their enthusiasm for Dolbyized cassettes, English Decca has begun exporting some of them directly to this country where currently only relatively few are being released in domestic Ampex processings. The importers also bear the London label, of course (to distinguish them from productions of the unrelated American Decca company), and are priced at the standard $6.95 each, but they differ most notably from the domestic processings by including liner notes (like imported Deutsche Grammophon and Philips musicassettes).

The most distinctive program in the first batch of importations is a superb Selli memorial, that outstanding Beethoven bicentenary recording of the complete incidental music for Fidelio. The Vienna Philharmonic, soprano Pilar Lorengar, and Klausjürgen Wussow as the vivid narrator (in German) are under Selli’s magisterial direction and the superlative performance is presented in almost palpably solid recorded sound (London 5CS 6675). There are five other inaugural releases, but of these I’ve been able to hear (as yet) only the Richard Strauss Heldenleben by Mehta and the Los Angeles Philharmonic (London 5CS 6608). Like the previous two tapings by Von Karajan and Barbirolli, this reading will probably be of interest only to the conductor’s devotees. Mehta’s richly romantic performance lacks disciplined control and the turgid orchestral sonorities would seem to be more the conductor’s responsibility than that of the engineers. But here, as in the Egyman cassette, Dolbyization achieves substantial if not absolutely complete surface-noise reductions.

Revitalized Bostonians. If you’ve been skeptical about either young Michael Tilson Thomas’ claims to Instant Fame or of Deutsche Grammophon’s engineering triumphs in Boston, just listen to their two latest releases. The first is a coupling of two contemporary American works, where one might expect Thomas to shine, but the other is an example of very early Tchaikovskyan romanticism, an area in which he might not be expected to show such ready affinity.

The program of American music turns out even better than expected: Walter Piston’s Second Symphony, an eloquent, exhilarating, skillfully constructed and orchestrated work, while William Schuman’s Violin Concerto is an impressive addition to the scanty repertory of American virtuoso-display vehicles. Both works are tape firsts, and the Schuman also marks the tape debut of that amazing young specialist in contemporary works for the violin, Paul Zukovsky (DGG/Ampex L 3103, 3% -ips reel, $7.95).

In Tchaikovsky’s endearing G minor Symphony (Winter Dreams) Thomas demonstrates the rare ability to recognize the boundary between sentiment and sentimentality, and here he completely realizes, with the aid of DGG’s vital and transparent engineering, the young composer’s exuberant total imagination. There have been several quite good recordings of early Tchaikovsky symphonies, but this one is outstanding—and not least for the realistic facsimile of Symphony Hall ambience and the silent, pre-Dolbyized tape processing (DGG/Ampex L 3078, 3%-ips reel, $7.95). There is also an imported DGG cassette edition (3300 107, $6.95) which is almost as good—even the surface noise is slight by normal non-Dolbyized cassette standards.

Horowitz and Heifetz: Hors de Conçours! Despite the appearance of many exceptionally talented young instrumentalists in recent years, it’s good to be reminded that two incomparable Old Masters have lost none of their fabulous skills. The latest release in Horowitz’ Columbia series is one of the best yet—both for its gleamingly bright yet solidly substantial piano recording (notable too for its wide dynamic range) and for its demonstration of the soloist’s apparently illimitable digital dexterity. His Schumann Kreisleriana was recorded in 1969 and sounds considerably fresher than the dull-toned 1964 Rubinstein version which I greeted in its RCA cassette and 8-track cartridge editions last December. Rubinstein’s reading is perhaps a bit more genial and “Schumannesque” in some respects, but it is scarcely as scintillating and exciting as the Horowitz version, which has the added attraction of more novel coupling material: Schuman’s generally semplice Variations on a Theme by Clara Wieck, Op. 14 (Columbia cassette 11 0214, $6.95: no notes).

“Heifetz on Television” is a must for everyone interested in fiddling at its finest. This audio-only documentation (RCA Red Seal 8-track cartridge RSB 1181, $6.95: no notes) of last April’s memorable NBC-TV program includes a number of little transcription encores (some of them arranged by the soloist himself), thus perpetuating for a probably puzzled posterity the now fast-dying vogue for such recital divertissements. Diverting enough as naive showpieces, these translations of the March from Prokofiev’s Love for Three Oranges, It Ain’t Necessarily So from Gershwin’s Porgy and Bess, etc., are in dubious taste. But most listeners will surely be spellbound by the sheer bravura of the present performance of the mighty Bach unaccompanied Chaconne (scarcely idiomatic, to be sure, but what phenomenal fiddling?) and by the magical melodic warmth of Bruch’s Scottish Fantasia, Op. 46. Here the abbreviated televised performance has been wisely replaced by the beloved earlier (c. 1962) recording with the New Symphony Orchestra under Sir Malcolm Sargent—now out of print in its January 1963 RCA open-reel tape edition.

Cassette Opera House: Sills’ Lucia. There is considerable new interest as well as artistic and technical merit in the latest complete opera to appear in cassette format, Donizetti’s Lucia di Lammermoor. Beverly Sills stars in the title role, with Carlo Bergonzi and a strong supporting cast, the Ambrosian Opera Chorus, and the London Symphony Orchestra all under Thomas Schippers (ABC-Audio Treasury/Ampex D 2006, two-cassette set, $14.95; libretto on request, even though there is no printed notice to that effect).

Although I haven’t been a wholehearted Sills devotee in the past, I am irresistibly captivated here, not only by her deft vocalism but by her genuinely dramatic vitalization of a too often flaccid heroine. I also relish the use of the glass harmonica in the Mad Scene, as the composer himself requested. The rest of the cast does well, and the entire production is powerfully and vividly recorded—a few uncomfortably intense moments are probably a result of the conductor’s occasional overemphatic beat. The present taping has been processed at an admirably high modulation level, thus preserving the marked brilliance and wide dynamic range (and also some sonic imbalances) of the master recording, but it is marred by occasional slight spillovers and the considerable surface noise one usually encounters in non-Dolbyized cassettes. Anyone seriously bothered by such minor annoyances undoubtedly will prefer the open-reel edition, which I have not yet heard (ABC-Audio Treasury/Ampex R 2006, $21.95; libretto enclosed).
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